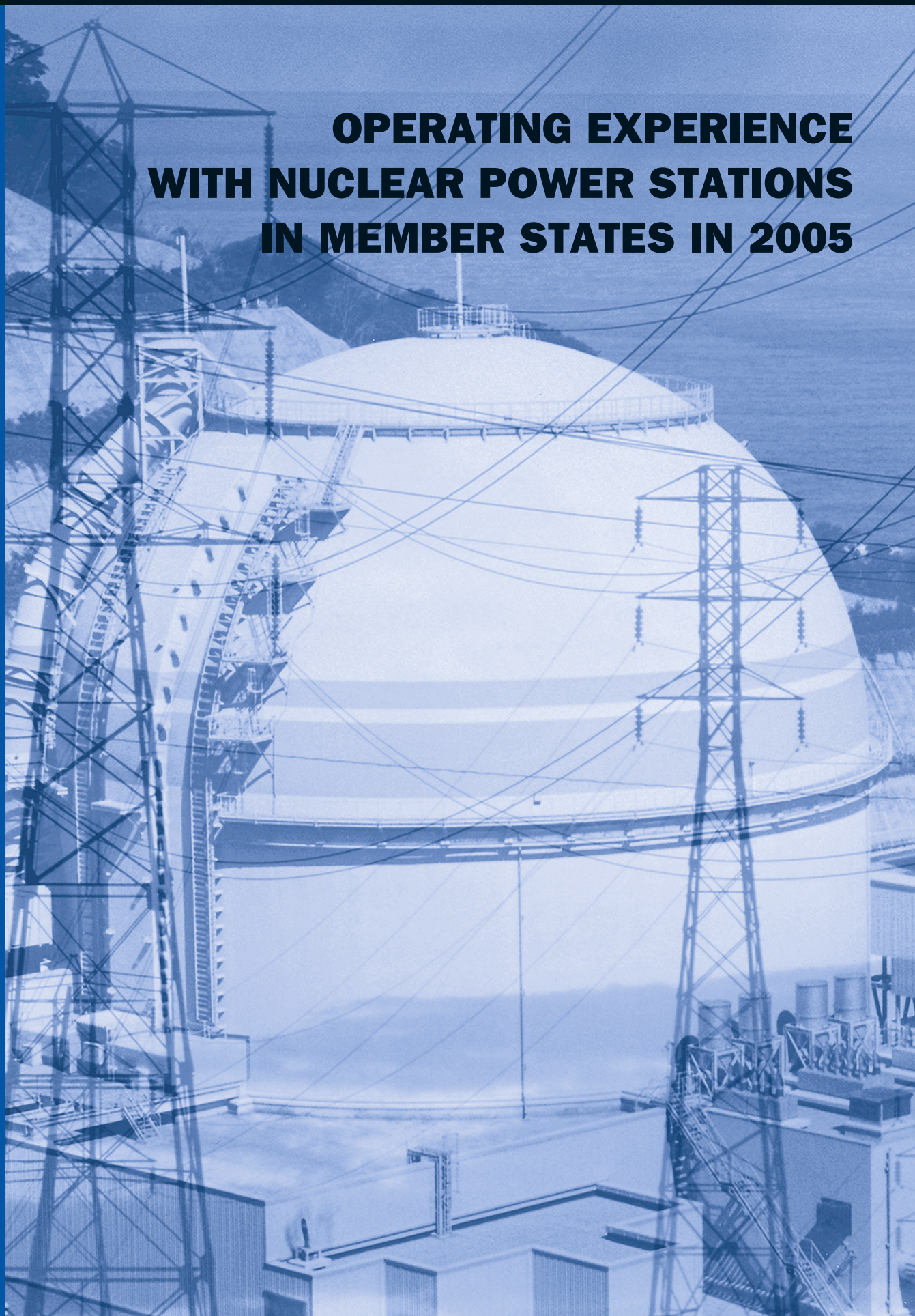




IAEA

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OPERATING EXPERIENCE WITH NUCLEAR POWER STATIONS IN MEMBER STATES IN 2005



OPERATING EXPERIENCE
WITH NUCLEAR POWER STATIONS
IN MEMBER STATES IN 2005

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EL SALVADOR	MONACO	UZBEKISTAN
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ESTONIA	MOROCCO	VIETNAM
ETHIOPIA	MYANMAR	YEMEN
FINLAND	NAMIBIA	ZAMBIA
FRANCE	NETHERLANDS	ZIMBABWE
GABON	NEW ZEALAND	
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The Agency's Statute was approved on 23 October 1956 by the Conference on the Statute of the IAEA held at United Nations Headquarters, New York; it entered into force on 29 July 1957. The Headquarters of the Agency are situated in Vienna. Its principal objective is "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world".

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FOREWORD

This report is the thirty-seventh in the Agency's series of annual reports on operating experience with nuclear power stations in Member States. For the first time it is issued purely in an electronic version.

As in previous years, in addition to annual performance data and outage information, the report contains a historical summary of performance and outages during the lifetime of individual plants and five figures illustrating worldwide performance and statistical data.

It is hoped that this report and related Agency publications will be useful to everyone concerned with nuclear power reactors. Suggestions and corrections from readers would be most welcome.

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1. INTRODUCTION

This report is the thirty-seventh in the Agency's series of annual reports on operating experience with nuclear power stations in Member States. For the first time it is issued purely in an electronic version.

The report is a direct output from the Agency's Power Reactor Information System (PRIS), whose databank contains all operating experience data published in the Agency's operating experience annual reports since 1970 and basic information on power reactors, including design data. It presents operating experience data for all worldwide nuclear power plants after starting commercial operation. The PRIS databank is available free of charge to IAEA Member States through its two services: PRIS-PC, and PRIS CD-ROM. The PRIS-PC allows direct access to the database through the Internet. The PRIS-PC on CD-ROM only includes data for reactors in operation, under construction and shutdown. It keeps the same feature as in the current front-end-tool PRIS-PC interface. This front-end-tool interface allows to search and query through pre-designed statistics. The PRIS-PC on CD-ROM contains mapping interface including a view of the world map with zooming features to country, region and site map and links to PRIS database to retrieve related (nuclear power plant) information. PRIS data and related indicators are also available on the PRIS Website: www.iaea.org/programmes/a2. It contains publicly available information about reactor units and nuclear industry results.

Load, operation and availability factors are used as the basic performance indicators. Energy unavailability factors, separate for planned and unplanned unavailability, due either to causes under plant management control or external causes out of plant management control, are used as a measure of energy lost through a unit not being available. However, some ambiguity remains in the operators' reports of the unavailability data, resulting in inconsistencies in these factors. It is recognized that there is an inherent difficulty in reporting unavailability in energy due to external causes with relation to energy losses due to load following operation and grid limitation. It should be noted that, for load, operation and unavailability factors, there might be differences between the data of this report and those published elsewhere. To avoid confusion, reference should be made to the definitions given in Section 3. In Section 4 this report presents figures illustrating worldwide performance indicators up to 2005.

According to the information available to the Agency at the end of 2005, there were 443 nuclear power reactors operating in the world, with a total net capacity of 369.6 GW_(e).

Four new reactor units were connected to the grid in 2005 (two in Japan and one each in India and the South Korea), and one laid-up plant was reconnected in Canada.

There were two NPP retirements in 2005 — one 340 MW(e) reactor in Germany and the one 600 MW(e) reactor in Sweden. This compares to five retirements in 2004.

At the end of 2005 there were 27 nuclear power plants under construction in the world with a total net capacity 21.8 GW_(e). Construction began on three NPPs in 2005, Finland's 1600 MW(e) PWR (EPR) reactor, China's 1000 MW(e) PWR and Pakistan's 300 MW(e) PWR. In addition, active construction has resumed on two NPPs in the Bulgaria.

The scope of publication has been enhanced by information related to non-electrical application of nuclear power reactors. The Chapter 7 consists of production data related to district heating, industrial process heat delivery and to water desalination process. In 2005 the nuclear energy was utilized for non-electrical application in 9 Member States involving energy from 66 nuclear reactors.

This publication includes information received by the Agency up to 1 September 2005. Up to this date data from all operating units had been reported. Any data modification received after that date, although not included in this publication, is available in the PRIS database.

The information contained in the report was made available to the Agency through designated national correspondents and the Department of Energy (DOE).

The Agency appreciates the valuable assistance that it has obtained from the national authorities, official correspondents and various electrical utilities in gathering the information for this report.

The report was compiled by staff of the Agency's Division of Nuclear Power. It is hoped that it will be useful to nuclear power plant operators, nuclear system designers, nuclear power planners, interested professional engineers and scientists and others concerned with the operating experience with nuclear power reactors. Suggestions and corrections from readers would be most welcome.

2. DEFINITIONS

1. Reference Unit Power, RUP [$\text{MW}_{(e)}$]

The reference unit power is the maximum (electrical) power that could be maintained continuously throughout a prolonged period of operation under reference ambient conditions.

It is specified that this value must remain constant for a given unit unless, following permanent modification, or a new permanent authorization, the management decides to amend the original value.

The reference unit power may be gross of net:

- The gross RUP (P_g , $\text{MW}_{(e)}$) is deemed to be measured at the output terminals of all generator sets in the station; it includes therefore the power taken by the station auxiliaries and losses in transformers that are considered integral parts of the station.
- The net RUP (P_n , $\text{MW}_{(e)}$), indicating the maximum power that can be supplied, is measured at the station outlet terminals, i.e. after deducting the power taken by station auxiliaries and the losses in the transformers that are considered integral parts of the station.

2. Design net capacity [$\text{MW}_{(e)}$]

The net reference unit power as specified in an original unit design.

3. Reference period, T [hours]

For units in power ascension at the end of the period, the clock hours from the beginning of the period or the first electrical production, whichever comes last, to the end of the period.

For units in commercial operation at the end of the period, the clock hours from the beginning of the period or of commercial operation, whichever comes last, to the end of the period or permanent shutdown, whichever comes first.

4. On-line hours, t [hours]

The total clock hours in the reference period during which the unit operated with breakers closed to the station bus.

5. Reference Energy Generation, REG [$\text{MW}_{(e)}\text{h}$]

Net electrical energy which would have been produced if the unit were operated continuously at the reference unit power during the whole reference period.

6. Energy Generated (net), EG [$\text{GW}_{(e)}\text{h}$]

Net electrical energy produced during the reference period as measured at the unit outlet terminals, i.e. after deducting the electrical energy taken by unit auxiliaries and the losses in transformers that are considered integral parts of the unit. If this quantity is less than zero, zero is reported.

7. Load Factor, LF [%]

$$LF = \frac{EG}{REG} \times 100$$

EG = energy generated (net), [MW_(e)h]
REG = reference energy generation [MW_(e)h]

Load factor, for a given period, is the ratio of the energy, which the power unit has produced over that period, to the energy it would have produced at its reference power capacity over that period.

8. Operation factor, OF [%]

$$OF = \frac{t}{T} \times 100$$

t = number of hours on-line [h]
T = number of hours in the reference period [h]

Operation factor is the ratio of the number of hours the unit was on-line, to the total number of hours in the reference period, expressed as a percentage. It is a measure of the unit time availability on the grid and does not depend on the operating power level.

9. Available capacity, P [MW_(e)]

The available capacity at a given moment is the maximum net capacity at which the unit or station is able or is authorized to be operated at a continuous rating under the prevailing conditions assuming unlimited transmission facilities.

10. Energy loss, EL [MW_(e)h]

Energy loss is the energy which could have been produced during the reference period by the unavailable capacity; it is categorized into three types:

- PEL - planned energy loss
- UEL - unplanned energy loss
- XEL - energy loss due to causes external to the plant

UEL comprise shutdowns, unplanned load reductions or outage extensions.

11. Unavailability

The unit unavailability is defined as a status when the plant is not able to operate at its maximum capacity (reference power). This condition, which may be under or beyond plant management control, should only reflect lack of availability of the plant itself, regardless of energy demand, transmission grid condition or political situation in the country.

Unavailability is classified as planned if it is foreseen at least 4 months in advance, generally at the time when the annual overhaul programme is established, and if the beginning of the unavailability period can be largely controlled and deferred by management. Unavailability is classified as unplanned if not scheduled at least four weeks in advance. Power plant operation at lower than maximum capacity because of lower demand from the grid but available to operate at the maximum capacity, does not constitute unavailability, either planned or unplanned.

12. Energy Availability Factor, EAF [%]

$$EAF = \frac{REG - PEL - UEL - XEL}{REG} \times 100$$

The energy availability factor over a specified period, is the ratio of the energy that the available capacity could have produced during this period, to the energy that the reference unit power could have produced during the same period.

13. Energy Unavailability Factor, EUF [%]

$$EUF = \frac{EL}{REG} \times 100$$

The unavailability factor over a specified period is the ratio of the energy losses EL that have not been produced during this period due to the unavailable capacity, to the energy that the reference unit power could have produced during the same period.

The energy unavailability factor EUF over a specified period can be divided into:

PUF = planned unavailability factor

UUF = unplanned unavailability factor due to causes in the plant

XUF = unplanned unavailability factor due to causes external to the plant.

The unavailability factor can be expressed as: $EUF = 100 - EAF$

14. Unit capability factor, UCF [%]

$$UCF = \frac{REG - PEL - UEL}{REG} \times 100$$

Unit capability factor is defined as the ratio of the energy that the unit was capable to generate over a given time period considering only limitation under the plant management control, to the reference energy generation over the same time period, expressed as a percentage. Both of these energy generation terms are determined relative to reference ambient conditions.

15. Construction start

Date when first major placing of concrete, usually for the base mat of the reactor building, is done.

16. First criticality

Date when the reactor is made critical for the first time.

17. Grid connection

Date when the plant is first connected to the electrical grid for supply of power.

18. Commercial operation

Date when the plant is handed over by the contractors to the owner and declared officially to be in commercial operation.

19. Shutdown

Date when the plant is officially declared shut down by the owner and taken out of operation permanently.

20. Outages

For the purpose of PRIS coding, the outage is defined as any status of a reactor unit, when its actual output power is lower than the reference unit power for a period of time. By this definition, the outage includes both power reduction and unit shutdown. The outage is considered significant, if the loss in the energy production corresponds to at least ten hours of continuous operation at the reference unit power or if it has been caused by an unplanned reactor scram (even if the unit had been shut down for less than 10 hours).

21. Outage duration [h]

The total clock hours of the outage measured from the beginning of the reference period or the outage, whichever comes last, to the end of the reference period or the outage, whichever comes first.

22. Factors refer to the plants which were in commercial operation during the whole of the reference period.

23. Cumulative factors are given for the plants which were in commercial operation during full calendar years.

24. A blank and three periods (...), if used in tables, denote information that is not applicable or not available, respectively.

25. Types of outages

The outage type is a three-character code. The third character is for unplanned outages only:

Code_1 description:

- (P) Planned outage due to causes under the plant management control
- (U) Unplanned outage due to causes under the plant management control
- (X) Outage due to causes beyond the plant management control ("external")

Code_2 description:

- (F) Full outage
- (P) Partial outage

Code_3 description:

- (1) Controlled shutdown or load reduction that could be deferred but had to be performed earlier than four weeks after the cause occurred or before the next refuelling outage, whatever comes first
- (2) Controlled shutdown or load reduction that had to be performed in the next 24 hours after the cause occurred
- (3) Extension of planned outage
- (4) Reactor scram, automatic
- (5) Reactor scram, manual.

26. Main causes of outages

- (A) Plant equipment failure
- (B) Refuelling without a maintenance
- (C) Inspection, maintenance or repair combined with refuelling
- (D) Inspection, maintenance or repair without refuelling
- (E) Testing of plant systems or components
- (F) Major back-fitting, refurbishment or upgrading activities with refuelling
- (G) Major back-fitting, refurbishment or upgrading activities without refuelling
- (H) Nuclear regulatory requirements
- (J) Grid failure or grid unavailability
- (K) Load-following (frequency control, reserve shutdown due to reduced energy demand)
- (L) Human factor related
- (M) Governmental requirements or Court decisions

- (N) Environmental conditions (flood, storm, lightning, lack of cooling water due to dry weather, cooling water temperature limits etc.)
- (P) Fire
- (R) External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant, spare part delivery problems etc.)
- (S) Fuel management limitation (including high flux tilt, stretch out or coast-down operation)
- (T) Offsite heat distribution system unavailability
- (U) Security and access control and other preventive shutdown due to external threats
- (Z) Others

27. Plant systems affected

Nuclear Systems

11.00 Reactor and Accessories

- 11.01 Reactor vessel and main shielding (including penetrations and nozzles)
- 11.02 Reactor core (including fuel assemblies)
- 11.03 Reactor internals (including steam separators/dryers - BWR, graphite, pressure tubes)
- 11.04 Auxiliary shielding and heat insulation
- 11.05 Moderator and auxiliaries (PHWR)
- 11.06 Annulus gas system (PHWR/RBMK)
- 11.99 None of the above systems

12.00 Reactor I&C Systems

- 12.01 Control and safety rods (including drives and special power supply)
- 12.02 Neutron monitoring (in-core and ex-core)
- 12.03 Reactor instrumentation (except neutron)
- 12.04 Reactor control system
- 12.05 Reactor protection system
- 12.06 Process computer
- 12.07 Reactor recirculation control (BWR)
- 12.99 None of the above systems

13.00 Reactor Auxiliary Systems

- 13.01 Primary coolant treatment and clean-up system
- 13.02 Chemical and volume control system
- 13.03 Residual heat removal system (including heat exchangers)
- 13.04 Component cooling system
- 13.05 Gaseous, liquid and solid radwaste treatment systems
- 13.06 Nuclear building ventilation and containment inerting system
- 13.07 Nuclear equipment venting and drainage system (including room floor drainage)
- 13.08 Borated or refuelling water storage system
- 13.09 CO₂ injection and storage system (GCR)
- 13.10 Sodium heating system (FBR)
- 13.11 Primary pump oil system (including RCP or make-up pump oil)
- 13.12 D₂O leakage collection and dryer system (PHWR)
- 13.13 Essential auxiliary systems (GCR)
- 13.99 None of the above systems

- 14.00 Safety Systems
- 14.01 Emergency core cooling systems (including accumulators and core spray system)
- 14.02 High pressure safety injection and emergency poisoning system
- 14.03 Auxiliary and emergency feedwater system
- 14.04 Containment spray system (active)
- 14.05 Containment pressure suppression system (passive)
- 14.06 Containment isolation system (isolation valves, doors, locks and penetrations)
- 14.07 Containment structures
- 14.08 Fire protection system
- 14.99 None of the above systems

- 15.00 Reactor Cooling Systems
- 15.01 Reactor coolant pumps/blowers and drives
- 15.02 Reactor coolant piping (including associated valves)
- 15.03 Reactor coolant safety and relief valves (including relief tank)
- 15.04 Reactor coolant pressure control system
- 15.05 Main steam piping and isolation valves (BWR)
- 15.99 None of the above systems

- 16.00 Steam generation systems
- 16.01 Steam generator (PWR), boiler (PHWR, AGR), steam drum vessel (RBMK, BWR)
- 16.02 Steam generator blowdown system
- 16.03 Steam drum level control system (RBMK, BWR)
- 16.99 None of the above systems

- 17.00 Safety I&C Systems (excluding reactor I&C)
- 17.01 Engineered safeguard feature actuation system
- 17.02 Fire detection system
- 17.03 Containment isolation function
- 17.04 Main steam/feedwater isolation function
- 17.05 Main steam pressure emergency control system (turbine bypass and steam dump valve control)
- 17.06 Failed fuel detection system (DN monitoring system for PHWR)
- 17.07 RCS integrity monitoring system (RBMK)
- 17.99 None of the above systems

Fuel and Refuelling Systems

- 21.00 Fuel Handling and Storage Facilities**
- 21.01 On-power refuelling machine
- 21.02 Fuel transfer system
- 21.03 Storage facilities, including treatment plant and final loading and cask handling facilities
- 21.99 None of the above systems**

Secondary plant systems

- 31.00 Turbine and auxiliaries
 - 31.01 Turbine
 - 31.02 Moisture separator and reheater
 - 31.03 Turbine control valves and stop valves
 - 31.04 Main condenser (including vacuum system)
 - 31.05 Turbine by-pass valves
 - 31.06 Turbine auxiliaries (lubricating oil, gland steam, steam extraction)
 - 31.07 Turbine control and protection system
 - 31.99 None of the above systems

- 32.00 Feedwater and Main Steam System
 - 32.01 Main steam piping and valves
 - 32.02 Main steam safety and relief valves
 - 32.03 Feedwater system (including feedwater tank , piping, pumps and heaters)
 - 32.04 Condensate system (including condensate pumps, piping and heaters)
 - 32.05 Condensate treatment system
 - 32.99 None of the above systems

- 33.00 Circulating Water System
 - 33.01 Circulating water system (pumps and piping/ducts excluding heat sink system)
 - 33.02 Cooling towers / heat sink system
 - 33.03 Emergency ultimate heat sink system
 - 33.99 None of the above systems

- 34.00 Miscellaneous Systems
 - 34.01 Compressed air (essential and non-essential / high-pressure and low-pressure)
 - 34.02 Gas storage, supply and cleanup systems (nitrogen, hydrogen, carbon dioxide etc.)
 - 34.03 Service water / process water supply system (including water treatment)
 - 34.04 Demineralized water supply system (including water treatment)
 - 34.05 Auxiliary steam supply system (including boilers and pressure control equipment)
 - 34.06 Non-nuclear area ventilation (including main control room)
 - 34.07 Chilled water supply system
 - 34.08 Chemical additive injection and makeup systems
 - 34.09 Non-nuclear equipment venting and drainage system
 - 34.10 Communication system
 - 34.99 None of the above systems

- 35.00 All other I&C Systems
 - 35.01 Plant process monitoring systems (excluding process computer)
 - 35.02 Leak monitoring systems
 - 35.03 Alarm annunciation system
 - 35.04 Plant radiation monitoring system
 - 35.05 Plant process control systems
 - 35.99 None of the above systems

Electrical Systems

- 41.00 Main Generator Systems
 - 41.01 Generator and exciter (including generator output breaker)
 - 41.02 Sealing oil system
 - 41.03 Rotor cooling gas system
 - 41.04 Stator cooling water system
 - 41.05 Main generator control and protection system
 - 41.99 None of the above systems

- 42.00 Electrical Power Supply Systems
 - 42.01 Main transformers
 - 42.02 Unit self-consumption transformers (station, auxiliary, house reserve etc.)
 - 42.03 Vital AC and DC plant power supply systems (medium and low voltage)
 - 42.04 Non-vital AC plant power supply system (medium and low voltage)
 - 42.05 Emergency power generation system (e.g. emergency diesel generator and auxiliaries)
 - 42.06 Power supply system logics (including load shed logic, emergency bus transfer logic, load sequencer logic, breaker trip logic etc.)
 - 42.07 Plant switchyard equipment
 - 42.99 None of the above systems

3. FIGURES

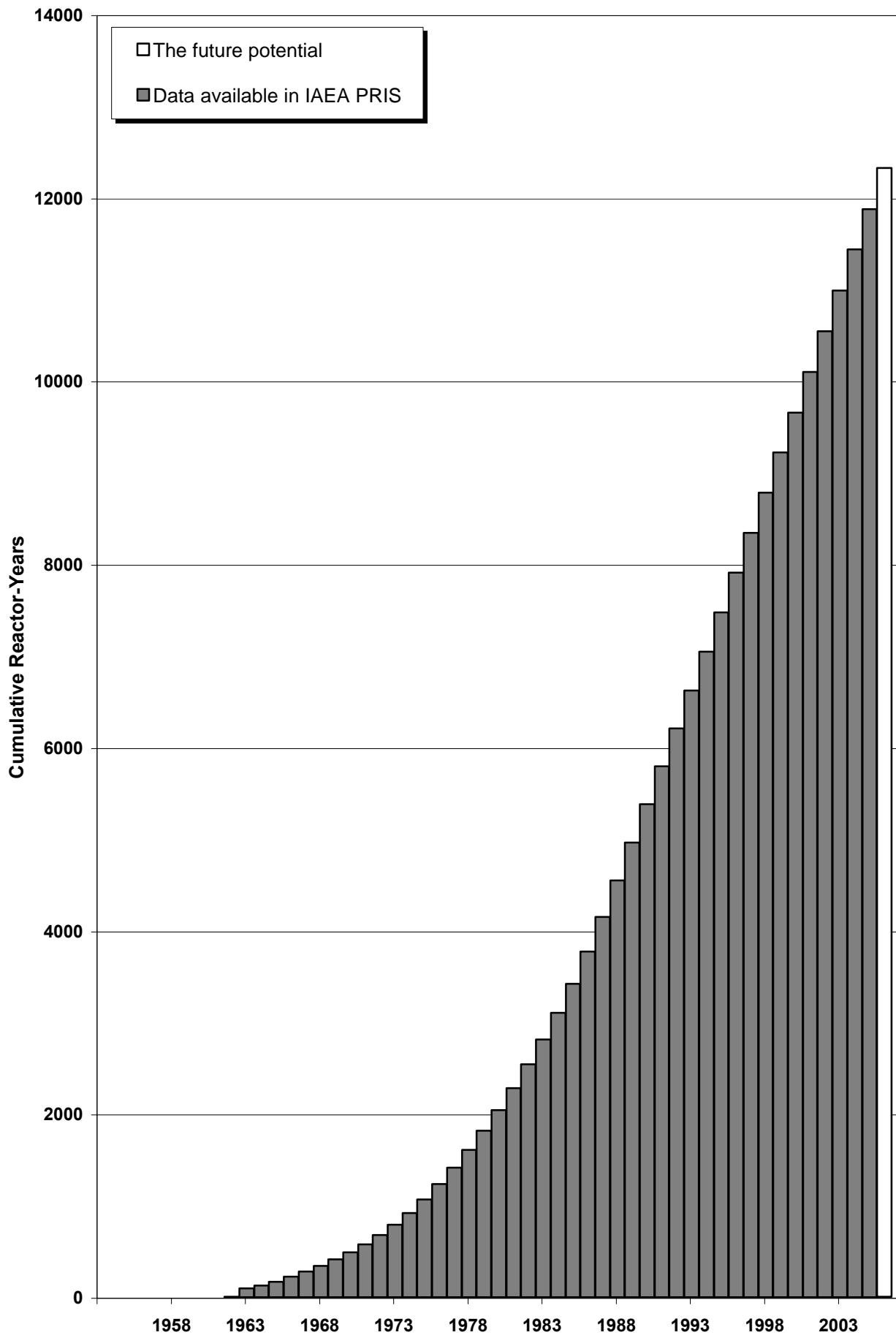


Figure 1 — Nuclear Power Reactors Operating Experience

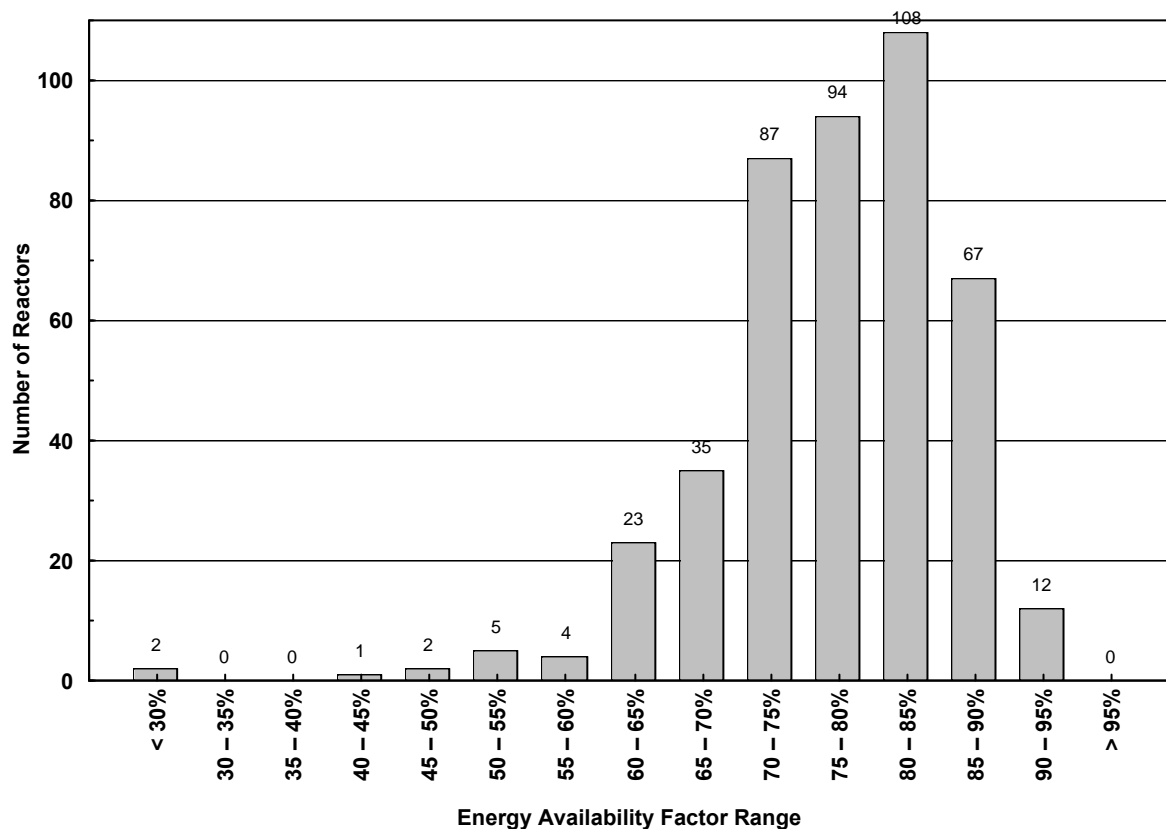


Figure 2 — Lifetime Energy Availability Factors up to 2005

(only reactors with capacity greater than 100 MW(e) and with more than one year of commercial operation)

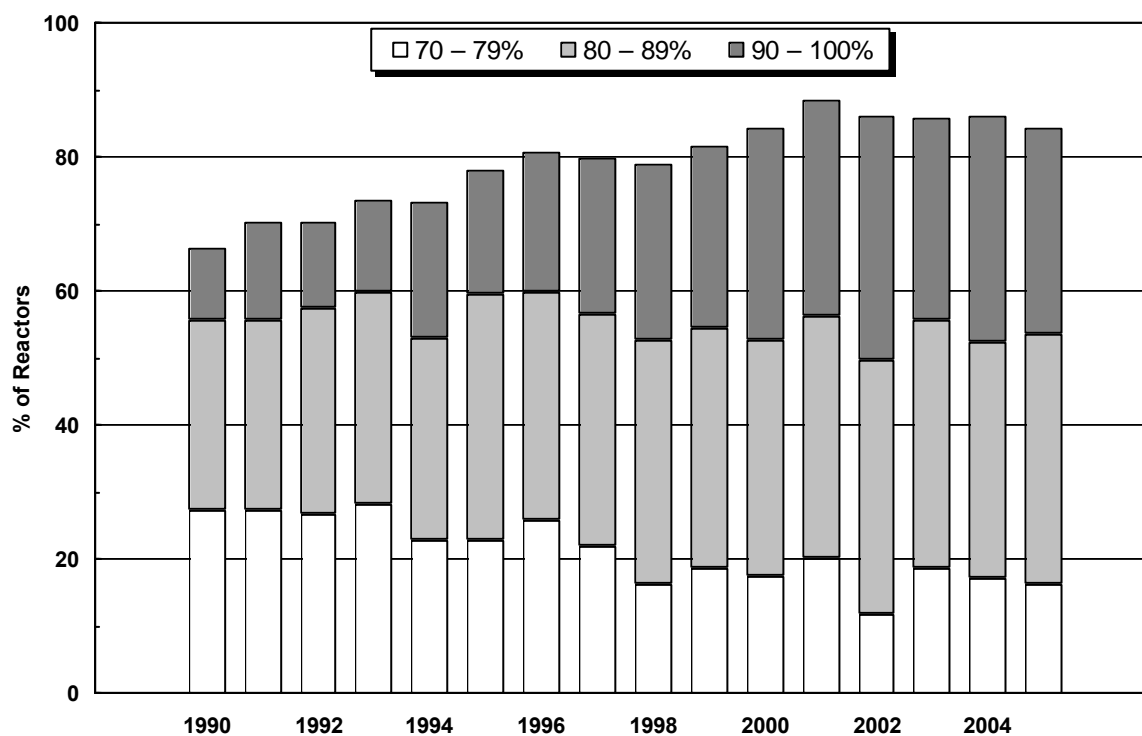


Figure 3 — Reactors with High Availability Factors

(only reactors with capacity greater than 100 MW(e) and with more than one year of commercial operation)

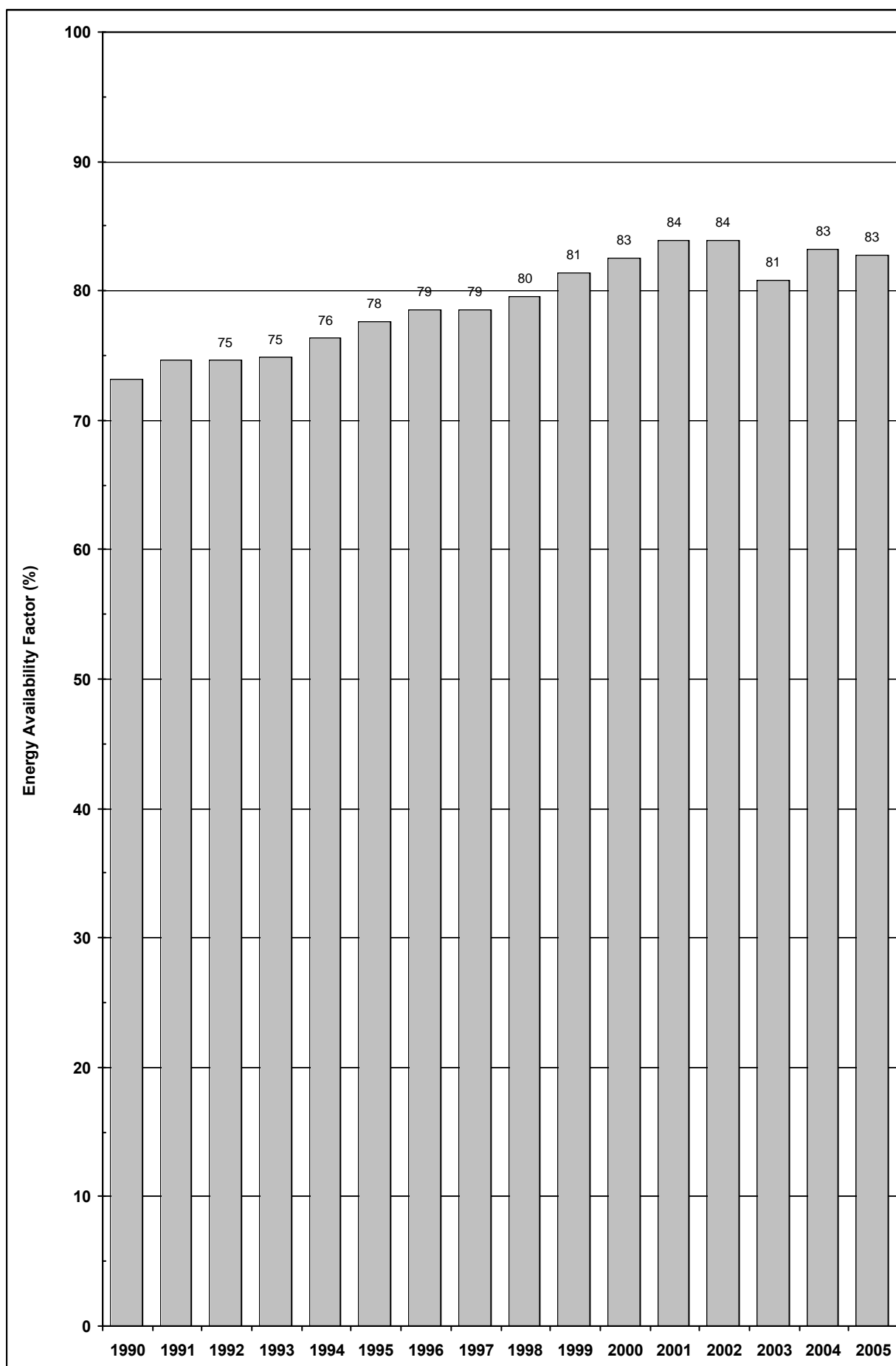


Figure 4 — Average Energy Availability Factors

(only reactors with capacity greater than 100 MW(e) and with more than one year of commercial operation)

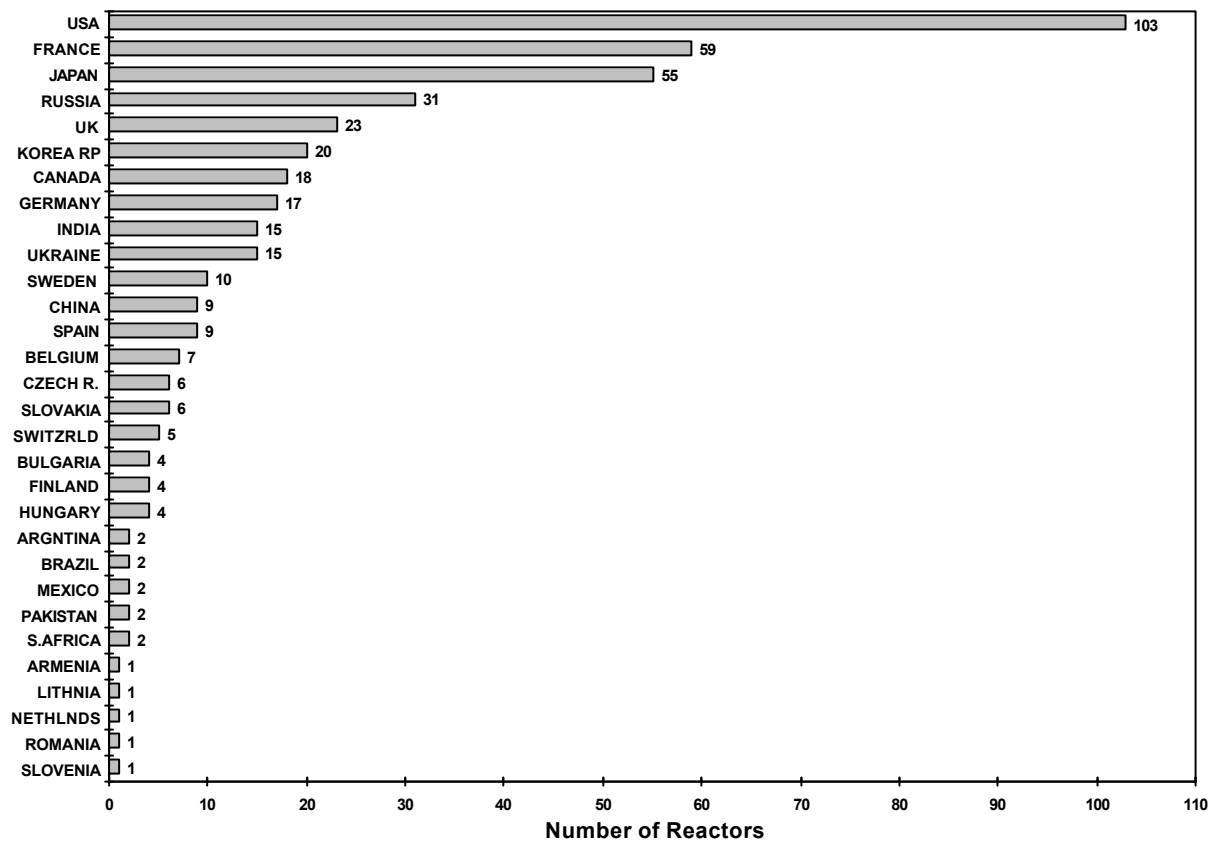


Figure 5 — Number of Reactors in Operation (as of 1 January 2006)

Note: There were 6 reactors in operation in Taiwan, China.

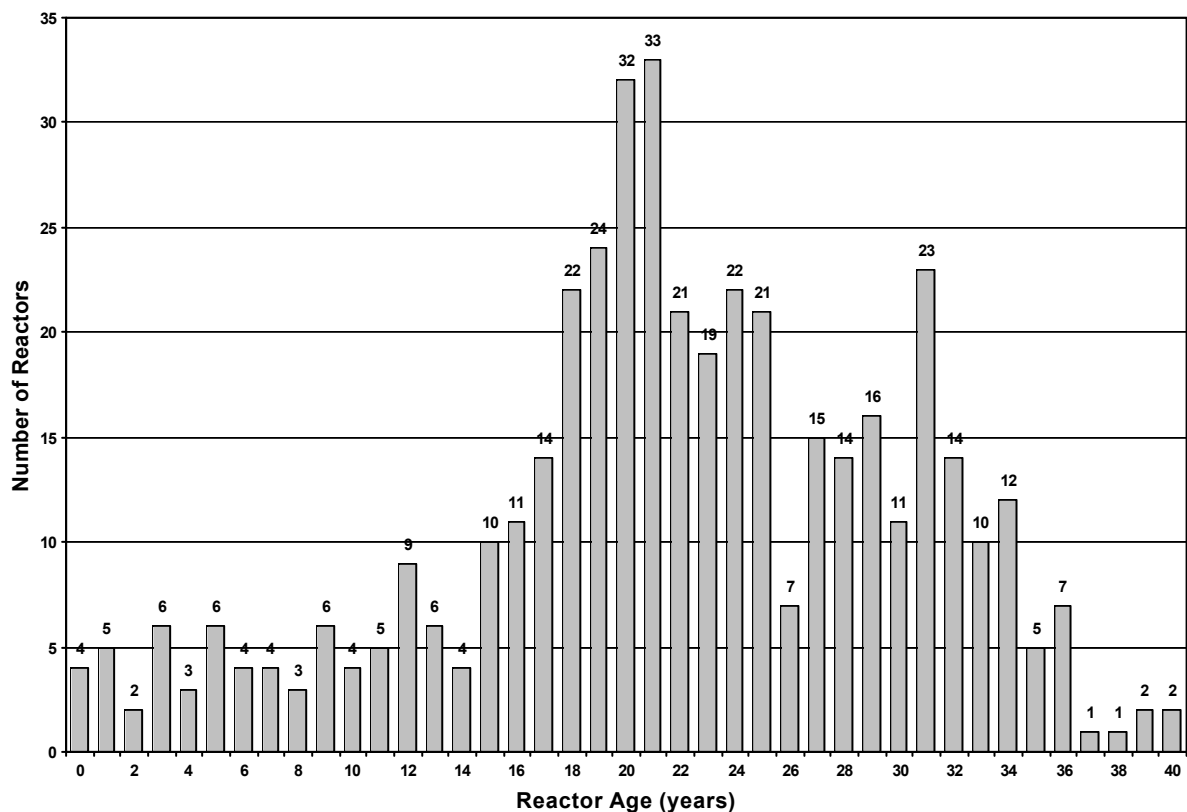


Figure 6 — Number of Reactors by Age (as of 1 January 2006)

4. ABBREVIATIONS

COUNTRY CODES

AM	ARMENIA
AR	ARGENTINA
BE	BELGIUM
BG	BULGARIA
BR	BRAZIL
CA	CANADA
CH	SWITZERLAND
CN	CHINA
CZ	CZECH REPUBLIC
DE	GERMANY
ES	SPAIN
FI	FINLAND
FR	FRANCE
GB	UNITED KINGDOM
HU	HUNGARY
IN	INDIA
JP	JAPAN
KR	KOREA, REPUBLIC OF
KZ	KAZAKHSTAN
LT	LITHUANIA, REPUBLIC OF
MX	MEXICO
NL	NETHERLANDS
PK	PAKISTAN
RO	ROMANIA
RU	RUSSIAN FEDERATION
SE	SWEDEN
SI	SLOVENIA
SK	SLOVAK REPUBLIC
TW	TAIWAN, CHINA
UA	UKRAINE
US	UNITED STATES OF AMERICA
ZA	SOUTH AFRICA

REACTOR TYPES

ABWR	Advanced Boiling Light-Water-Cooled and Moderated Reactor
AGR	Advanced Gas-Cooled, Graphite-Moderated Reactor
BWR	Boiling Light-Water-Cooled and Moderated Reactor
FBR	Fast Breeder Reactor
GCR	Gas-Cooled, Graphite-Moderated Reactor
HTGR	High-Temperature Gas-Cooled, Graphite-Moderated Reactor
HWGCR	Heavy-Water-Moderated, Gas-Cooled Reactor
HWLWR	Heavy-Water-Moderated, Boiling Light-Water-Cooled Reactor
LWGR	Light-Water-Cooled, Graphite-Moderated Reactor
PHWR	Pressurized Heavy-Water-Moderated and Cooled Reactor
PWR	Pressurized Light-Water-Moderated and Cooled Reactor
SGHWR	Steam-Generating Heavy-Water Reactor
WWER	Water Cooled Water Moderated Power Reactor

OPERATORS

AMEREN	AMEREN
AMERGEN	AMERGEN ENERGY CO.
ANAV	ASOCIACION NUCLEAR ASCO-VANDELLOS A.I.E. (ENDESA/ID)
ANPP	ARIZONA NUCLEAR POWER PROJECT
BE	BRITISH ENERGY
BKAB	BARSEBECK KRAFT AB
BKW	BKW ENERGIE AG
BNFL	BRITISH NUCLEAR FUELS PLC
BRUCEPOW	BRUCE POWER
CEA/EDF	COMMISSARIAT A L'ENERGIE ATOMIQUE / ELECTRICITE DE FRANCE
CEZ	CZECH POWER COMPANY , CEZ A.S.
CFE	COMISION FEDERAL DE ELECTRICIDAD
CHUBU	CHUBU ELECTRIC POWER CO.
CHUGOKU	CHUGOKU ELECTRIC POWER CO.
CNAT	CENTRALES NUCLEARES ALMARAZ-TRILLO(ID/UFG/ENDESA/HC/NUCLENOR)

CONST	CONSTELLATION NUCLEAR GROUP
DETE	DETROIT EDISON CO.
DOMIN	DOMINION VIRGINIA POWER
DUKE	DUKE POWER CO.
EBO	ELECTROSTATION BOHUNICE
EDF	ELECTRICITE DE FRANCE
ELECTRAB	ELECTRABEL M. V. NUCLEAIRE PRODUKTIE
ELETRONU	ELETRONUCLEAR SA – ELETRONUCLEAR
EMO	ELECTROSTATION MOCHOVCE
EnBW	ENBW KRAFTWERK AG
ENERGYNW	ENERGY NORTHWEST
ENTERGY	ENTERGY NUCLEAR
EON	EON KERNKRAFT GES.M.B.H
EPZ	N.V. ELEKTRICITEITS- PRODUKTIEMAATSCHAPPIJ ZUID-NEDERLAND
ESKOM	ESKOM
EXELON	EXELON NUCLEAR CO.
FENOC	FIRST ENERGY NUCLEAR OPERATING CO.
FKA	FORSMARK KRAFTGRUPP AB
FORTUMPH	FORTUM POWER AND HEAT OY (FORMER IVO)
FPL	FLORIDA POWER & LIGHT CO.
GNPJVC	GUANDONG NUCLEAR POWER JOINT VENTURE COMPANY LIMITED(GNPJVC)
HEPCO	HOKKAIDO ELECTRIC POWER CO.
HEW	HAMBURGISCHE ELEKTRIZITAETSWERKE
HOKURIKU	HOKURIKU ELECTRIC POWER CO.
HQ	HYDRO QUEBEC
ID	IBERDROLA, S.A.
IMPCO	INDIANA MICHIGAN POWER CO.
INPP	IGNALINA NUCLEAR POWER PLANT
JAPCO	JAPAN ATOMIC POWER CO.
JNC	JAPAN NUCLEAR CYCLE DEVELOPEMENT INSTITUTE
JSC	JOINT STOCK COMPANY ARMENIA NPP
KEPCO	KANSAI ELECTRIC POWER CO.
KHNP	KOREA HYDRO AND NUCLEAR POWER CO.
KKG	KERNKRAFTWERK GOESGEN-DAENIKEN AG
KKL	KERNKRAFTWERK LEIBSTADT
KYUSHU	KYUSHU ELECTRIC POWER CO.
LANPC	LINGAO NUCLEAR POWER COMPANY LTD.
NASA	NUCLEOELECTRICA ARGENTINA S.A.
NBEP	NEW BRUNSWICK ELECTRIC POWER COMMISSION
NEC	NATIONAL ELECTRICITY COMPANY, BRANCH NPP-KOZLODUY
NEK	NUKLEARNA ELEKTRARNA KRSKO
NNEG	NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>
NOK	NORDOSTSCHWEIZERISCHE KRAFTWERKE
NPCIL	NUCLEAR POWER CORPORATION OF INDIA LTD.
NPPD	NEBRASKA PUBLIC POWER DISTRICT
NPQJVC	NUCLEAR POWER PLANT QINSHAN JOINT VENTURE COMPANY LTD.
NUCLENOR	NUCLENOR, S.A.
NUCMAN	NUCLEAR MANAGEMENT CO.
OKG	OKG AKTIEBOLAG
OPG	ONTARIO POWER GENERATION
OPPD	OMAHA PUBLIC POWER DISTRICT
PAEC	PAKISTAN ATOMIC ENERGY COMMISSION
PAKS RT.	PAKS NUCLEAR POWER PLANT LTD
PGE	PACIFIC GAS & ELECTRIC CO.
PP&L	PENNSYLVANIA POWER & LIGHT CO.
PROGRESS	PROGRESS ENERGY CORPORATION
PSEG	PUBLIC SERVICE ELECTRIC & GAS CO.
QNPC	QINSHAN NUCLEAR POWER COMPANY
RAB	RINGHALS AB
REA	ROSENERGOATOM, CONSORTIUM
RGE	ROCHESTER GAS & ELECTRIC CORP.
RWE	RWE ENERGIE AG
SCE	SOUTHERN CALIFORNIA EDISON
SCEG	SOUTH CAROLINA ELECTRIC & GAS CO.
SHIKOKU	SHIKOKU ELECTRIC POWER CO.
SNN	SOCIETATEA NATIONALA NUCLEARELECTRICA S.A.
SOUTH	SOUTHERN NUCLEAR OPERATING CO.
STP	STP NUCLEAR OPERATING CO.
TEPCO	TOKYO ELECTRIC POWER CO.
TOHOKU	TOHOKU ELECTRIC POWER CO.
TPC	TAI POWER CO.
TQNPC	THE THIRD QINSHAN JOINTED VENTURE COMPANY LTD.
TVA	TENNESSEE VALLEY AUTHORITY
TVO	TEOLLISUUDEN VOIMA OY
TXU	TXU ELECTRIC CO.

UFG	UNION FENOSA GENERATION S.A.
WOLF	WOLF CREEK NUCLEAR OPERATION CORP.

CONTRACTORS

AA	ALSTHOM ATLANTIQUE
ABBATOM	ABBATOM (formerly ASEA -ATOM)
ACECOWEN	ACECOWEN (ACEC-COCKERILL-WESTINGHOUSE)
ACLF	(ACECOWEN - CREUSOT LOIRE - FRAMATOME)
AECL	ATOMIC ENERGY OF CANADA LTD.
AECL/DAE	ATOMIC ENERGY OF CANADA Ltda AND DEPARTMENT OF ATOMIC ENERGY(INDIA)
AECL/DHI	ATOMIC ENERGY OF CANADA LTD./DOOSAN HEAVY INDUSTRY & CONSTRUCTION
AEE	ATOMENERGOEXPORT
APC	ATOMIC POWER CONSTRUCTION LTD.
ASEASTAL	ASEA-ATOM / STAL-LAVAL
B&W	BABCOCK & WILCOX CO.
BBC	BROWN BOVERI ET CIE
CE	COMBUSTION ENGINEERING CO.
CGE	CANADIAN GENERAL ELECTRIC
CNCLNEY	CNIM-CONSTRUCTIONS NA VALES ET INDUSTRIELLES DE MEDITERRANEE CL -
	CREUSOT LOIRE , NEY - NEYRPIE
CNNC	CHINA NATIONAL NUCLEAR CORPORATION
DHICKAEC	DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA
	ATOMICENERGY RESEARCH INSTITUTE/COMBUSTIONENGINEERING
DHICKOPC	DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA
	POWER ENGINEERING COMPANY/COMBUSTIONENGINEERING
EE/B&W/T	THE ENGLISH ELECTRIC CO. LTD / BABCOCK & WILCOX CO. /
	TAYLOR WOODROW CONSTRUCTION LTD.
FRAM	FRAMATOME
FRAMACEC	FRAMACECO (FRAMATOME-ACEC-COCKERILL)
GE	GENERAL ELECTRIC COMPANY (US)
GEC	GENERAL ELECTRIC COMPANY (UK)
GETSCO	GENERAL ELECTRIC TECHNICAL SERVICES CO.
HITA/GE	HITACHI LTD./GENERAL ELECTRIC CO.
HITACHI	HITACHI LTD.
KWU	SIEMENS KRAFTWERK UNION AG
KWU/STOR	KRAFTWERK UNION AG / STORK
M	MITSUBISHI HEAVY INDUSTRY LTD
MAEP	MINATOMENERGOPROM, MINISTRY OF NUCLEAR POWER AND INDUSTRY
MNE	MINISTRY OF NUCLEAR ENERGY OF RUSSIAN FEDERATION
NEI.P	NEI PARSONS
NNC	NATIONAL NUCLEAR CORPORATION
NPC	NUCLEAR POWER CO. LTD.
NPCIL	NUCLEAR POWER CORPORATIO N OF INDIA LTD.
OH/AECL	ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.
PAA	PRODUCTION AMALGAMATION 'ATOMMASH', VOLGODONSK
PAIP	PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH, VOLGODONSK, RUSSIA
PPC	PWR POWER PROJECTS
SIEM,KWU	SIEMENS AG, KRAFTWERK UNION AG
SIEMENS	SIEMENS AG
SKODA	SKODA CONCERN NUCLEAR POWER PLANT WORKS
TNPG	THE NUCLEAR POWER GROUP LTD.
TOSHI/GE	TOSHIBA CORPORATION/GENERAL ELECTRIC CO.
TOSHIBA	TOSHIBA CORPORATION
UKAEA	UNITED KINGDOM ATOMIC ENERGY AUTHORITY
WEST	WESTINGHOUSE ELECTRIC CORPORATION

**5. DATA SHEETS ON
INDIVIDUAL NUCLEAR POWER STATION UNITS**

AR-1 ATUCHA-1

Operator: NASA (NUCLEOELECTRICA ARGENTINA S.A.)

Contractor: SIEMENS (SIEMENS AG)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 335.0 MW(e)
Design Net Capacity: 319.0 MW(e)
Design Discharge Burnup: 6000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1998.0 GW(e).h
Energy Availability Factor: 68.5%
Load Factor: 68.1%
Operating Factor: 80.0%
Energy Unavailability Factor: 31.5%
Total Off-line Time: 1756 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	198.5	92.3	0.0	28.1	142.3	211.9	250.4	236.8	167.7	218.0	207.0	245.0	1998.0
EAF (%)	81.7	43.8	0.4	11.2	56.5	87.3	99.3	95.1	69.1	87.1	87.5	100.0	68.5
UCF (%)	81.7	43.8	0.4	11.2	56.5	87.3	99.3	95.1	69.1	87.1	87.5	100.0	68.5
LF (%)	79.6	41.0	0.0	11.7	57.1	87.9	100.5	95.0	69.5	87.4	85.8	98.3	68.1
OF (%)	100.0	64.1	0.0	39.4	100.0	100.0	100.0	100.0	74.4	89.7	89.7	100.0	80.0
EUF (%)	18.3	56.2	99.6	88.8	43.5	12.7	0.7	4.9	30.9	12.9	12.5	0.0	31.5
PUF (%)	18.3	56.2	99.6	88.8	43.5	12.7	0.0	0.0	5.3	0.0	0.0	0.0	26.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	4.9	25.7	12.9	12.5	0.0	4.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

2005.01.01 - 2005.02.05: OPERATION AT 80% OF FULL POWER (AVERAGE) IN BASE LOAD

MODE.2005.02.05 - 2005.04.05: SHUT DOWN (PROGRAMMED OUTAGE)2005.04.05-2005.07.01: OPERATION

AT 70% FULL POWER (AVERAGE) IN BASE LOAD MODE2005.07.01-2005.08.24:OPERATION AL 100%FULL

POWER (AVERAGE) IN BASE LOAD MODE2005.08.24-2005.08.31:LIMITATION AT 80% DUE TO FUEL

MANAGEMENT2005.08.31-2005.09.17: OPERATION AT 100% IN BASE LOAD

MODE2005.09.17-2005.09.25:SHUT DOWN2005.09.25-2005.10.11: OPERATION AT 100% IN BASE LOAD

MODE2005.10.11-2005.10.14: SHUT DOWN2005.10.14-2005.11.25:OPERATION AT 100% IN BASE LOAD

MODE2005.11.25-2005.11.28:SHUT DOWN2005.11.28-2005.12.31:OPERATION AT 100% IN BASE LOAD MODE

5. Historical Summary

Date of Construction Start: 01 Jun 1968
Date of First Criticality: 13 Jan 1974
Date of Grid Connection: 19 Mar 1974
Date of Commercial Operation: 24 Jun 1974

Lifetime Generation: 62661.4 GW(e).h
Cumulative Energy Availability Factor: 70.8%
Cumulative Load Factor: 67.8%
Cumulative Unit Capability Factor: 73.0%
Cumulative Energy Unavailability Factor: 29.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	831.3	319.0	100.0	100.0	50.7	50.7	50.7	50.7	3592	69.9
1975	2357.8	319.0	85.6	90.9	85.6	72.7	84.4	71.9	7730	88.2
1976	2408.6	319.0	86.9	89.4	86.9	78.2	86.0	77.4	7808	88.9
1977	1537.0	345.0	53.1	78.9	53.0	70.9	52.1	70.1	4650	53.1
1978	2711.8	345.0	90.9	81.6	90.9	75.5	89.7	74.6	8026	91.6
1979	2503.7	335.0	84.1	82.1	84.1	77.1	85.3	76.5	7551	86.2
1980	2180.5	335.0	73.5	80.8	73.5	76.5	74.1	76.2	6947	79.1
1981	2647.6	335.0	89.7	81.9	89.7	78.3	90.2	78.0	8120	92.7
1982	1753.6	335.0	59.2	79.3	59.2	76.0	59.8	75.9	5600	63.9
1983	2356.0	335.0	78.4	79.2	78.4	76.3	80.3	76.3	8101	92.5
1984	1706.1	335.0	98.7	81.0	98.7	78.4	58.0	74.6	8678	98.8
1985	1470.5	335.0	91.6	82.0	91.6	79.6	50.1	72.5	7159	81.7
1986	2205.0	335.0	75.8	81.5	75.8	79.3	75.1	72.7	7532	86.0
1987	1405.8	335.0	49.2	79.1	49.2	77.0	47.9	70.8	4391	50.1
1988	808.1	335.0	27.1	75.5	27.1	73.6	27.5	67.8	2515	28.6
1989	0.0	335.0	0.0	70.6	0.0	68.8	0.0	63.5	0	0.0
1990	1722.6	335.0	84.9	71.5	58.7	68.2	58.7	63.2	7201	82.2
1991	2721.9	335.0	92.6	72.7	92.6	69.6	92.8	64.9	8390	95.8
1992	2230.2	335.0	76.3	72.9	76.3	70.0	75.8	65.5	7089	80.7
1993	2403.7	335.0	82.2	73.4	82.2	70.6	81.9	66.3	7287	83.2
1994	2651.9	335.0	90.4	74.2	90.4	71.6	90.4	67.5	7916	90.4
1995	2671.7	335.0	92.3	75.0	92.3	72.5	91.0	68.6	8376	95.6
1996	2038.8	335.0	70.6	74.8	70.6	72.4	69.3	68.6	6990	79.6
1997	2720.1	335.0	93.4	75.6	93.4	73.3	92.7	69.6	8329	95.1
1998	2374.4	335.0	81.4	75.9	81.3	73.7	80.9	70.1	7242	82.7
1999	1395.5	335.0	47.8	74.8	47.8	72.6	47.6	69.2	4364	49.8
2000	1677.9	335.0	72.8	74.7	56.8	72.0	57.0	68.7	5038	57.4
2001	1426.0	335.0	57.2	74.0	57.2	71.5	48.6	68.0	4407	50.3
2002	1011.5	335.0	34.6	72.7	34.6	70.2	34.5	66.8	3030	34.6
2003	2020.6	335.0	68.8	72.5	68.8	70.2	68.9	66.9	6094	69.6
2004	2725.0	335.0	92.2	73.2	92.2	70.9	92.6	67.7	8250	93.9
2005	1998.0	335.0	68.5	73.0	68.5	70.8	68.1	67.8	7004	80.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		335			794	1
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling				7		
D. Inspection, maintenance or repair without refuelling				1212		
E. Testing of plant systems or components				6		
G. Major back-fitting, refurbishment or upgrading activities without refuelling	1422					
H. Nuclear regulatory requirements					1	87
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					15	53
Subtotal	1422	335	0	1225	823	143
Total		1757			2191	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	185	121
12. Reactor I&C Systems	74	53
13. Reactor Auxiliary Systems	76	156
14. Safety Systems		40
15. Reactor Cooling Systems		205
16. Steam generation systems		59
17. Safety I&C Systems (excluding reactor I&C)		12
31. Turbine and auxiliaries		11
32. Feedwater and Main Steam System		26
33. Circulating Water System		9
41. Main Generator Systems		6
42. Electrical Power Supply Systems		69
Total	335	767

AR-2 EMBALSE

Operator: NASA (NUCLEOELECTRICA ARGENTINA S.A.)

Contractor: AECL (ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 600.0 MW(e)
Design Net Capacity: 600.0 MW(e)
Design Discharge Burnup: 7190 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4372.5 GW(e).h
Energy Availability Factor: 83.3%
Load Factor: 83.2%
Operating Factor: 83.8%
Energy Unavailability Factor: 16.7%
Total Off-line Time: 1419 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	442.5	399.8	442.3	429.4	436.8	433.4	447.4	446.3	432.3	308.0	0.0	154.3	4372.5
EAF (%)	99.1	99.1	99.1	99.4	100.0	100.0	100.0	100.0	100.0	69.0	0.0	34.6	83.3
UCF (%)	99.1	99.1	99.1	99.4	100.0	100.0	100.0	100.0	100.0	69.0	0.0	34.6	83.3
LF (%)	99.1	99.1	99.1	99.5	97.8	100.3	100.2	100.0	100.1	68.9	0.0	34.6	83.2
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	69.1	0.0	36.8	83.8
EUF (%)	0.9	0.9	0.9	0.6	0.0	0.0	0.0	0.0	0.0	31.0	100.0	65.4	16.7
PUF (%)	0.9	0.9	0.9	0.6	0.0	0.0	0.0	0.0	0.0	31.0	100.0	60.3	16.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005, EMBALSE NPP GENERATED 4724404 MWH. WITH A GROSS LOAD FACTOR OF 83.23% AN AVAILABILITY FACTOR OF 83.41% AND UNPLANNED ANNUAL UNAVAILABILITY OF 0.44%.IN 2005 THERE WERE EXTRACTED FOR SALE 5287508 CI OF COBALT 60.

5. Historical Summary

Date of Construction Start: 01 Apr 1974 **Lifetime Generation:** 98655.0 GW(e).h
Date of First Criticality: 13 Mar 1983 **Cumulative Energy Availability Factor:** 86.9%
Date of Grid Connection: 25 Apr 1983 **Cumulative Load Factor:** 84.2%
Date of Commercial Operation: 20 Jan 1984 **Cumulative Unit Capability Factor:** 87.4%
Cumulative Energy Unavailability Factor: 13.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	2527.1	600.0	70.3	70.3	69.9	69.9	47.9	47.9	6355	72.3
1985	3778.6	600.0	93.4	81.9	93.4	81.6	71.9	59.9	8170	93.3
1986	3061.7	600.0	67.1	77.0	66.3	76.5	58.3	59.4	5847	66.7
1987	4577.0	600.0	87.9	79.7	87.9	79.4	87.1	66.3	7951	90.8
1988	4560.6	600.0	88.8	81.5	88.8	81.3	86.5	70.3	7798	88.8
1989	4659.0	600.0	90.1	82.9	89.1	82.6	88.6	73.4	7804	89.1
1990	5000.7	600.0	96.5	84.9	95.1	84.4	95.1	76.5	8404	95.9
1991	4498.8	600.0	89.7	85.5	85.8	84.5	85.6	77.6	7855	89.7
1992	4354.0	600.0	83.4	85.2	81.6	84.2	82.6	78.2	7440	84.7
1993	4773.3	600.0	90.7	85.8	90.6	84.8	90.8	79.4	7956	90.8
1994	5157.9	600.0	98.3	86.9	97.8	86.0	98.1	81.1	8575	97.9
1995	3897.9	600.0	74.3	85.9	74.3	85.1	74.2	80.6	6541	74.7
1996	4892.0	600.0	92.8	86.4	92.8	85.6	92.8	81.5	8176	93.1
1997	4737.0	600.0	89.3	86.6	89.3	85.9	90.1	82.1	7821	89.3
1998	4555.4	600.0	86.9	86.6	86.9	86.0	86.7	82.4	7629	87.1
1999	5201.8	598.0	99.1	87.4	99.1	86.8	99.3	83.5	8700	99.3
2000	4064.5	643.0	78.2	86.8	78.1	86.2	72.0	82.8	6837	77.8
2001	5128.1	600.0	97.5	87.4	97.4	86.9	97.6	83.6	8564	97.8
2002	4385.5	600.0	84.0	87.2	83.4	86.7	83.4	83.6	7401	84.5
2003	5004.1	600.0	95.1	87.6	95.1	87.1	95.2	84.1	8367	95.5
2004	4589.6	600.0	87.5	87.6	87.5	87.1	87.1	84.3	7704	87.7
2005	4372.5	600.0	83.3	87.4	83.3	86.9	83.2	84.2	7341	83.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		36		7	268	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling				104		
D. Inspection, maintenance or repair without refuelling	1382			642		
E. Testing of plant systems or components				62	1	
H. Nuclear regulatory requirements				9	2	
J. Grid failure or grid unavailability					1	20
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					3	
Subtotal	1382	36	0	824	275	20
Total		1418			1119	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		9
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		48
15. Reactor Cooling Systems		18
16. Steam generation systems		75
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		40
32. Feedwater and Main Steam System		26
33. Circulating Water System	36	
41. Main Generator Systems		39
42. Electrical Power Supply Systems		8
Total	36	270

AM-19 ARMENIA-2

Operator: JSC (Joint Stock Company Armenian NPP)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 376.0 MW(e)
Design Net Capacity: 376.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2504.5 GW(e).h
Energy Availability Factor: 76.3%
Load Factor: 76.0%
Operating Factor: 87.4%
Energy Unavailability Factor: 23.7%
Total Off-line Time: 1102 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	259.6	227.9	241.7	244.4	242.7	185.7	245.9	242.8	239.0	0.2	116.5	258.0	2504.5
EAF (%)	89.0	86.8	84.5	90.0	88.1	69.2	91.7	91.0	91.0	0.3	45.8	88.4	76.3
UCF (%)	89.0	86.8	84.5	90.0	88.2	69.3	91.7	91.0	91.0	0.3	45.8	88.4	76.3
LF (%)	92.8	90.2	86.4	90.4	86.7	68.6	87.9	86.8	88.3	0.1	43.0	92.2	76.0
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	0.3	50.0	100.0	87.4
EUF (%)	11.0	13.2	15.5	10.0	11.9	30.8	8.3	9.0	9.0	99.7	54.2	11.6	23.7
PUF (%)	8.0	8.0	8.0	8.0	8.0	29.7	8.0	8.0	8.0	99.7	51.9	8.0	21.2
UCLF (%)	3.0	5.2	7.6	2.0	3.9	1.1	0.3	1.0	1.0	0.0	2.3	3.6	2.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

ARMENIA2 WAS IN NORMAL OPERATION, AND THERE WAS NO SCRAMS DURING THE YEAR OF 2005. ANPP HAS A LICENSE TO BE OPERATED NOT MORE THAN AT 92%.THE ELECTRIC ENERGY PRODUCTION WAS MAXIMAL SINCE THE RESTART OF POWER UNIT.

5. Historical Summary

Date of Construction Start:	01 Jul 1975	Lifetime Generation:	41776.0 GW(e).h
Date of First Criticality:	01 Jan 1980	Cumulative Energy Availability Factor:	62.3%
Date of Grid Connection:	05 Jan 1980	Cumulative Load Factor:	61.1%
Date of Commercial Operation:	03 May 1980	Cumulative Unit Capability Factor:	64.9%
		Cumulative Energy Unavailability Factor:	37.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	Data not provided									
1981	"									
1982	"									
1983	"									
1984	"									
1985	"									
1986	"									
1987	2629.1	408.0	79.3	79.3	79.3	79.3	73.6	73.6	7040	80.4
1988	2254.5	376.0	73.4	76.5	73.4	76.5	68.3	71.0	6741	76.7
1989	671.3	376.0	99.6	78.9	99.6	78.9	82.7	72.2	1838	85.1
1990	Data not available - Long-term shutdown									
1991	"									
1992	"									
1993	"									
1994	"									
1995	Data not provided									
1996	2098.0	376.0	86.2	81.1	63.6	74.3	63.5	69.6	7561	86.1
1997	1430.0	376.0	43.4	72.4	43.4	67.2	43.4	63.6	5700	65.1
1998	1416.5	376.0	44.6	67.2	44.6	63.0	43.0	59.7	6408	73.2
1999	1890.4	376.0	57.4	65.7	57.4	62.1	57.4	59.4	6193	70.7
2000	1841.5	376.0	55.8	64.3	55.8	61.2	55.8	58.9	5699	64.9
2001	1815.4	376.0	55.1	63.2	55.1	60.5	55.1	58.4	5660	64.6
2002	2078.9	376.0	63.3	63.2	63.2	60.8	63.1	58.9	6961	79.5
2003	1997.6	376.0	63.4	63.2	60.6	60.8	60.6	59.1	6120	69.9
2004	2196.6	376.0	70.3	63.9	64.2	61.1	66.5	59.7	7135	81.2
2005	2504.5	376.0	76.3	64.9	76.3	62.3	76.0	61.1	7658	87.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					62	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1101			960		
D. Inspection, maintenance or repair without refuelling				88		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				82		
J. Grid failure or grid unavailability						13
Subtotal	1101	0	0	1130	64	13
Total	1101			1207		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		0
15. Reactor Cooling Systems		7
16. Steam generation systems		11
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		1
41. Main Generator Systems		1
42. Electrical Power Supply Systems		2
Total	0	24

BE-2 DOEL-1

Operator: ELECTRAB (ELECTRABEL M. V. NUCLEAIRE PRODUKTIE)

Contractor: ACECOWEN (ACECOWEN (ACEC-COCKERILL-WESTINGHOUSE))

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 392.0 MW(e)
Design Net Capacity: 392.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3062.6 GW(e).h
Energy Availability Factor: 88.0%
Load Factor: 89.2%
Operating Factor: 89.6%
Energy Unavailability Factor: 12.0%
Total Off-line Time: 912 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	298.1	269.1	296.5	285.7	276.2	282.5	291.8	292.8	283.1	278.9	82.7	125.4	3062.6
EAF (%)	99.7	99.5	99.3	98.8	93.1	99.2	99.8	99.8	99.9	95.2	29.4	42.0	88.0
UCF (%)	100.0	100.0	100.0	100.0	93.9	100.0	100.0	100.0	99.9	100.0	34.2	42.0	89.1
LF (%)	102.2	102.1	101.7	101.2	94.7	100.1	100.0	100.4	100.3	95.5	29.3	43.0	89.2
OF (%)	100.0	100.0	99.9	100.0	95.0	100.0	100.0	100.0	100.0	100.0	34.3	46.1	89.6
EUF (%)	0.3	0.5	0.7	1.2	6.9	0.8	0.2	0.2	0.1	4.8	70.6	58.0	12.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	65.5	56.2	10.2
UCLF (%)	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.3	1.8	0.7
XUF (%)	0.3	0.5	0.6	1.2	0.7	0.8	0.2	0.2	0.0	4.8	4.8	0.0	1.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

05-05-2005 : MANUAL SCRAM 06-05-2005 : AUTOMATIC SCRAM 11-11-2005 : AUTOMATIC SCRAM

16-12-2005 : AUTOMATIC SCRAM

5. Historical Summary

Date of Construction Start: 01 Jul 1969
Date of First Criticality: 18 Jul 1974
Date of Grid Connection: 28 Aug 1974
Date of Commercial Operation: 15 Feb 1975

Lifetime Generation: 91732.0 GW(e).h
Cumulative Energy Availability Factor: 85.2%
Cumulative Load Factor: 85.5%
Cumulative Unit Capability Factor: 89.7%
Cumulative Energy Unavailability Factor: 14.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	2407.2	392.0	76.6	76.6	76.6	76.6	76.6	76.6	6672	83.2
1976	2667.1	395.0	100.0	88.9	75.5	76.0	76.9	76.7	6928	78.9
1977	2830.0	395.0	100.0	92.7	81.8	78.0	81.8	78.5	7332	83.7
1978	2731.2	395.0	100.0	94.6	78.9	78.2	78.9	78.6	7071	80.7
1979	3037.0	395.0	100.0	95.7	86.4	79.9	87.8	80.5	7812	89.2
1980	2901.0	395.0	100.0	96.4	84.4	80.6	83.6	81.0	7596	86.5
1981	2946.0	395.0	100.0	96.9	85.0	81.3	85.1	81.6	7644	87.3
1982	3184.5	395.0	91.7	96.3	91.2	82.5	92.0	82.9	8103	92.5
1983	2823.0	393.0	82.1	94.7	81.8	82.4	82.0	82.8	7316	83.5
1984	3129.0	393.0	90.2	94.2	90.2	83.2	90.6	83.6	7988	90.9
1985	2896.3	392.0	82.4	93.2	82.4	83.2	84.3	83.7	7330	83.7
1986	2685.9	392.0	79.1	92.0	78.8	82.8	78.2	83.2	7040	80.4
1987	2928.4	400.0	85.5	91.5	85.4	83.0	83.6	83.2	7306	83.4
1988	2694.1	400.0	86.6	91.1	81.3	82.9	76.7	82.8	7686	87.5
1989	2513.1	400.0	73.6	89.9	71.9	82.1	71.7	82.0	6475	73.9
1990	2859.9	400.0	85.6	89.7	83.5	82.2	81.6	82.0	7380	84.2
1991	3061.4	400.0	89.5	89.6	89.2	82.6	87.4	82.3	7860	89.7
1992	2990.5	400.0	87.7	89.5	86.5	82.9	85.1	82.5	7741	88.1
1993	2908.9	400.0	86.0	89.3	84.4	82.9	83.0	82.5	7580	86.5
1994	2921.8	400.0	88.7	89.3	84.8	83.0	83.4	82.5	7635	87.2
1995	2791.5	392.0	82.7	89.0	81.0	82.9	81.3	82.5	7342	83.8
1996	3169.4	392.0	91.5	89.1	91.3	83.3	92.0	82.9	8141	92.7
1997	3113.8	392.0	89.0	89.1	88.9	83.6	90.7	83.3	7899	90.2
1998	3292.5	392.0	94.1	89.3	93.7	84.0	95.9	83.8	8277	94.5
1999	3196.8	392.0	92.6	89.4	91.1	84.3	93.1	84.1	8123	92.7
2000	3264.8	392.0	94.2	89.6	92.3	84.6	94.8	84.6	8317	94.7
2001	3157.6	392.0	91.4	89.7	90.5	84.8	91.9	84.8	8098	92.4
2002	3260.7	392.0	93.4	89.8	93.3	85.1	95.0	85.2	8308	94.8
2003	3024.6	392.0	90.3	89.8	86.4	85.1	88.1	85.3	7953	90.8
2004	2989.1	392.0	87.6	89.8	85.5	85.1	86.8	85.3	7742	88.1
2005	3062.6	392.0	89.1	89.7	88.0	85.2	89.2	85.5	7849	89.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		22			204	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	858			781		
D. Inspection, maintenance or repair without refuelling				8		
E. Testing of plant systems or components				34	1	
H. Nuclear regulatory requirements		2			5	
J. Grid failure or grid unavailability						7
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				26	49	
L. Human factor related					0	
P. Fire		30			1	
Z. Others						
Subtotal	858	54	0	849	263	7
Total		912			1119	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		11
12. Reactor I&C Systems		13
14. Safety Systems		10
15. Reactor Cooling Systems		16
16. Steam generation systems		45
31. Turbine and auxiliaries	14	75
32. Feedwater and Main Steam System		22
33. Circulating Water System		0
41. Main Generator Systems		7
42. Electrical Power Supply Systems	8	0
Total	22	199

BE-4 DOEL-2

Operator: ELECTRAB (ELECTRABEL M. V. NUCLEAIRE PRODUKTIE)

Contractor: ACECOWEN (ACECOWEN (ACEC-COCKERILL-WESTINGHOUSE))

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 433.0 MW(e)
Design Net Capacity: 392.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3506.7 GW(e).h
Energy Availability Factor: 90.8%
Load Factor: 92.4%
Operating Factor: 91.7%
Energy Unavailability Factor: 9.2%
Total Off-line Time: 725 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	317.5	299.1	330.5	227.4	175.7	314.8	319.3	321.0	311.0	327.3	234.5	328.7	3506.7
EAF (%)	95.6	99.7	99.7	72.0	53.4	99.8	98.7	98.9	99.3	99.8	73.5	99.3	90.8
UCF (%)	95.9	100.0	100.0	72.5	53.4	100.0	100.0	100.0	100.0	100.0	73.7	100.0	91.3
LF (%)	98.6	102.8	102.6	73.0	54.5	101.0	99.1	99.7	99.7	101.5	75.2	102.0	92.4
OF (%)	96.1	100.0	99.9	72.8	57.9	100.0	100.0	100.0	100.0	100.0	74.2	100.0	91.7
EUF (%)	4.4	0.3	0.3	28.0	46.6	0.2	1.3	1.1	0.7	0.2	26.5	0.7	9.2
PUF (%)	0.0	0.0	0.0	27.6	27.5	0.0	0.0	0.0	0.0	0.0	26.3	0.0	6.8
UCLF (%)	4.1	0.0	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
XUF (%)	0.3	0.3	0.3	0.4	0.0	0.2	1.3	1.1	0.7	0.2	0.2	0.7	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

18-01-2005 : MANUAL SCRAM

5. Historical Summary

Date of Construction Start:	01 Sep 1971	Lifetime Generation:	85014.8 GW(e).h
Date of First Criticality:	04 Aug 1975	Cumulative Energy Availability Factor:	80.6%
Date of Grid Connection:	21 Aug 1975	Cumulative Load Factor:	80.8%
Date of Commercial Operation:	01 Dec 1975	Cumulative Unit Capability Factor:	86.1%
		Cumulative Energy Unavailability Factor:	19.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	266.4	392.0	100.0	100.0	91.3	91.3	91.3	91.3	694	93.3
1976	2462.8	395.0	100.0	100.0	71.6	73.2	71.0	72.6	6519	74.2
1977	2576.8	395.0	100.0	100.0	74.3	73.7	74.5	73.5	6649	75.9
1978	2750.6	395.0	100.0	100.0	79.5	75.6	79.5	75.4	7114	81.2
1979	2593.3	395.0	100.0	100.0	74.6	75.3	74.9	75.3	6639	75.8
1980	2782.0	395.0	100.0	100.0	79.7	76.2	80.2	76.3	7111	81.0
1981	2841.7	395.0	100.0	100.0	81.4	77.1	82.1	77.2	7226	82.5
1982	2582.0	395.0	74.2	96.4	73.8	76.6	74.6	76.9	6598	75.3
1983	2017.0	393.0	58.5	91.7	58.0	74.3	58.6	74.6	5190	59.2
1984	2916.0	393.0	84.1	90.9	84.1	75.4	84.5	75.7	7508	85.5
1985	2908.7	392.0	83.0	90.1	83.0	76.1	84.7	76.6	7341	83.8
1986	2282.6	392.0	69.8	88.3	69.8	75.6	66.5	75.7	5891	67.2
1987	2616.4	400.0	77.8	87.4	76.8	75.7	74.7	75.6	6612	75.5
1988	2906.7	400.0	83.2	87.1	82.6	76.2	82.7	76.1	7408	84.3
1989	2479.8	400.0	71.8	86.0	70.8	75.8	70.8	75.8	6436	73.5
1990	1982.6	400.0	66.5	84.7	56.6	74.5	56.6	74.5	5170	59.0
1991	2779.8	400.0	81.2	84.4	81.0	74.9	79.3	74.8	7136	81.5
1992	2971.9	400.0	86.3	84.6	86.1	75.6	84.6	75.4	7617	86.7
1993	2949.5	400.0	85.9	84.6	85.7	76.2	84.2	75.9	7551	86.2
1994	2982.4	392.0	87.3	84.8	86.2	76.7	86.9	76.4	7810	89.2
1995	2867.5	392.0	82.9	84.7	82.7	77.0	83.5	76.8	7342	83.8
1996	2888.8	392.0	83.4	84.6	83.1	77.3	83.9	77.1	7390	84.1
1997	2935.0	392.0	87.7	84.8	84.5	77.6	85.5	77.5	7749	88.5
1998	3145.0	392.0	90.2	85.0	90.1	78.1	91.6	78.1	7987	91.2
1999	3091.7	392.0	89.6	85.2	88.9	78.6	90.0	78.6	7875	89.9
2000	3135.6	392.0	90.4	85.4	89.8	79.0	91.1	79.1	8022	91.3
2001	3150.5	392.0	90.9	85.6	90.3	79.4	91.7	79.6	8060	92.0
2002	3104.5	392.0	91.4	85.8	89.5	79.8	90.4	80.0	8076	92.2
2003	3142.6	392.0	93.1	86.1	90.1	80.2	91.5	80.4	8184	93.4
2004	2951.9	433.0	81.9	85.9	80.5	80.2	81.3	80.4	7174	81.7
2005	3506.7	433.0	91.3	86.1	90.8	80.6	92.4	80.8	8036	91.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		171			331	
B. Refuelling without a maintenance					16	
C. Inspection, maintenance or repair combined with refuelling	365			845		
D. Inspection, maintenance or repair without refuelling				175		
E. Testing of plant systems or components	186			71	14	
J. Grid failure or grid unavailability						14
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				9	11	
L. Human factor related					0	
Z. Others					0	
Subtotal	551	171	0	1100	372	14
Total	722			1486		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	142	
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		5
14. Safety Systems		9
15. Reactor Cooling Systems		27
16. Steam generation systems		97
31. Turbine and auxiliaries		94
32. Feedwater and Main Steam System		18
41. Main Generator Systems	29	12
42. Electrical Power Supply Systems		9
Total	171	282

BE-5 DOEL-3

Operator: ELECTRAB (ELECTRABEL M. V. NUCLEAIRE PRODUKTIE)
Contractor: FRAMACEC (FRAMACECO (FRAMATOME-ACEC-COCKERILL))

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1006.0 MW(e)
Design Net Capacity: 890.0 MW(e)
Design Discharge Burnup: 49000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7962.7 GW(e).h
Energy Availability Factor: 91.1%
Load Factor: 90.4%
Operating Factor: 93.0%
Energy Unavailability Factor: 8.9%
Total Off-line Time: 613 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	744.3	657.2	742.7	706.2	431.7	357.1	718.2	721.8	675.5	736.4	722.2	749.5	7962.7
EAF (%)	99.3	96.9	99.3	97.6	57.7	50.4	98.8	98.9	95.2	99.1	99.8	99.5	91.1
UCF (%)	100.0	97.4	100.0	100.0	64.6	50.9	100.0	100.0	95.9	100.0	100.0	100.0	92.4
LF (%)	99.4	97.2	99.2	97.6	57.7	49.3	96.0	96.4	93.3	98.3	99.7	100.1	90.4
OF (%)	100.0	98.2	99.9	100.1	64.8	56.9	100.0	100.0	96.0	100.0	100.0	100.0	93.0
EUF (%)	0.7	3.1	0.7	2.4	42.3	49.6	1.2	1.1	4.8	0.9	0.2	0.5	8.9
PUF (%)	0.0	0.0	0.0	0.0	35.4	44.3	0.0	0.0	0.0	0.0	0.0	0.0	6.7
UCLF (%)	0.0	2.6	0.0	0.0	0.0	4.8	0.0	0.0	4.1	0.0	0.0	0.0	0.9
XUF (%)	0.7	0.5	0.7	2.4	6.9	0.5	1.2	1.1	0.6	0.8	0.2	0.5	1.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

27-02-2005 : SCRAM 15-06-2005: SCRAM MANUAL 15-09-2005: SCRAM MANUAL

5. Historical Summary

Date of Construction Start: 01 Jan 1975 **Lifetime Generation:** 167232.1 GW(e).h
Date of First Criticality: 14 Jun 1982 **Cumulative Energy Availability Factor:** 86.0%
Date of Grid Connection: 23 Jun 1982 **Cumulative Load Factor:** 85.9%
Date of Commercial Operation: 01 Oct 1982 **Cumulative Unit Capability Factor:** 88.8%
Cumulative Energy Unavailability Factor: 14.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	1764.0	900.0	100.0	100.0	88.8	88.8	88.8	88.8	2033	92.1
1983	6705.0	900.0	100.0	100.0	85.0	85.8	85.0	85.8	7807	89.1
1984	7074.0	900.0	89.5	95.3	89.5	87.5	89.5	87.4	8084	92.0
1985	6496.3	900.0	82.4	91.4	82.4	85.9	82.4	85.9	7515	85.8
1986	6860.0	897.0	100.0	93.4	88.5	86.5	87.3	86.2	8007	91.4
1987	5713.2	897.0	75.7	90.0	73.5	84.0	72.7	83.7	6905	78.8
1988	6777.5	890.0	88.7	89.8	85.9	84.3	86.7	84.1	7875	89.7
1989	5774.9	900.0	82.1	88.8	73.4	82.8	73.2	82.6	7470	85.3
1990	6811.8	900.0	89.9	88.9	86.4	83.3	86.4	83.1	8021	91.6
1991	6742.9	900.0	90.0	89.0	85.8	83.5	85.5	83.4	7913	90.3
1992	6732.2	900.0	92.3	89.3	90.1	84.2	85.2	83.5	7778	88.5
1993	5377.2	900.0	69.6	87.6	65.8	82.5	68.2	82.2	6198	70.8
1994	7482.3	970.0	88.4	87.6	87.7	83.0	88.1	82.7	7888	90.0
1995	7025.1	970.0	83.4	87.3	82.6	83.0	82.7	82.7	7396	84.4
1996	7334.2	1006.0	84.4	87.1	83.8	83.0	84.0	82.8	7447	84.8
1997	8108.2	1006.0	93.5	87.5	91.9	83.7	92.0	83.4	8250	94.2
1998	8012.6	1006.0	92.0	87.8	90.9	84.2	90.9	83.9	8171	93.3
1999	8231.2	1006.0	94.8	88.3	93.4	84.7	93.4	84.5	8330	95.1
2000	7884.9	1006.0	89.3	88.3	89.0	85.0	89.2	84.8	7892	89.8
2001	7993.3	1006.0	90.9	88.5	90.2	85.3	90.7	85.1	7989	91.2
2002	7636.6	1006.0	86.7	88.4	86.2	85.3	86.7	85.2	7647	87.3
2003	7870.8	1006.0	89.8	88.5	89.7	85.5	89.3	85.4	7928	90.5
2004	7984.8	1006.0	91.6	88.6	90.8	85.8	90.4	85.7	8104	92.3
2005	7962.7	1006.0	92.4	88.8	91.1	86.0	90.4	85.9	8147	93.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		40			173	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	551			703	2	
D. Inspection, maintenance or repair without refuelling				9		
E. Testing of plant systems or components				0	1	
H. Nuclear regulatory requirements					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					11	
L. Human factor related					1	
P. Fire		22				
Subtotal	551	62	0	712	189	0
Total		613			901	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems	28	1
13. Reactor Auxiliary Systems		1
14. Safety Systems		0
15. Reactor Cooling Systems		33
16. Steam generation systems		58
17. Safety I&C Systems (excluding reactor I&C)		19
31. Turbine and auxiliaries		20
32. Feedwater and Main Steam System	12	10
41. Main Generator Systems		7
42. Electrical Power Supply Systems		6
Total	40	168

BE-7 DOEL-4**Operator:** ELECTRAB (ELECTRABEL M. V. NUCLEAIRE PRODUKTIE)**Contractor:** ACECOWEN (ACECOWEN (ACEC-COCKERILL-WESTINGHOUSE))**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 985.0 MW(e)

Design Net Capacity: 1000.0 MW(e)

Design Discharge Burnup: 45000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7394.8 GW(e).h

Energy Availability Factor: 85.9%

Load Factor: 85.7%

Operating Factor: 87.3%

Energy Unavailability Factor: 14.1%

Total Off-line Time: 1114 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	728.5	654.4	728.8	704.0	698.5	669.1	640.1	0.0	364.9	732.4	722.1	752.1	7394.8
EAF (%)	99.4	98.3	99.2	99.6	96.8	96.6	89.8	0.0	52.2	100.0	100.0	99.8	85.9
UCF (%)	99.4	98.3	100.0	100.0	97.7	97.0	89.8	0.0	52.2	100.0	100.0	100.0	86.1
LF (%)	99.4	98.9	99.4	99.3	95.3	94.3	87.3	0.0	51.5	99.8	101.8	102.6	85.7
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	90.3	0.0	58.8	100.0	100.0	100.0	87.3
EUF (%)	0.6	1.7	0.8	0.4	3.2	3.4	10.2	100.0	47.8	0.0	0.0	0.2	14.1
PUF (%)	0.6	1.7	0.0	0.0	2.3	3.0	10.2	100.0	34.7	0.0	0.0	0.0	12.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	1.1
XUF (%)	0.0	0.0	0.8	0.4	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Dec 1978 **Lifetime Generation:** 149608.1 GW(e).h

Date of First Criticality: 31 Mar 1985 **Cumulative Energy Availability Factor:** 83.1%

Date of Grid Connection: 08 Apr 1985 **Cumulative Load Factor:** 83.1%

Date of Commercial Operation: 01 Jul 1985 **Cumulative Unit Capability Factor:** 84.1%

Cumulative Energy Unavailability Factor: 16.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	3574.9	980.0	82.6	82.6	82.6	82.6	82.6	82.6	3884	87.9
1986	7722.9	1006.0	90.6	88.0	87.8	86.1	87.6	86.0	7973	91.0
1987	6809.3	1006.0	81.4	85.3	77.0	82.4	77.3	82.5	7448	85.0
1988	7552.0	1000.0	87.6	86.0	85.9	83.4	86.0	83.5	7784	88.6
1989	7445.9	1010.0	87.4	86.3	84.4	83.7	84.2	83.6	7737	88.3
1990	7535.8	1010.0	88.2	86.7	85.3	83.9	85.2	83.9	7790	88.9
1991	7425.4	1010.0	84.8	86.4	84.1	84.0	83.9	83.9	7673	87.6
1992	7418.6	1010.0	86.7	86.4	85.9	84.2	83.6	83.9	7481	85.2
1993	6980.9	1010.0	79.6	85.6	78.9	83.6	78.9	83.3	7112	81.2
1994	3462.7	1001.0	39.2	80.7	39.2	78.9	39.5	78.7	3637	41.5
1995	6769.7	1001.0	76.9	80.4	76.8	78.7	77.2	78.6	7381	84.3
1996	6186.8	1001.0	70.6	79.5	69.9	78.0	70.4	77.8	6565	74.7
1997	7548.7	1001.0	87.1	80.1	87.0	78.7	86.1	78.5	7653	87.4
1998	7844.0	985.0	90.0	80.9	90.0	79.5	90.9	79.4	7998	91.3
1999	8008.4	985.0	92.5	81.6	92.4	80.4	92.8	80.3	8150	93.0
2000	7992.9	985.0	92.0	82.3	92.0	81.1	92.4	81.1	8323	94.8
2001	8098.9	985.0	93.3	83.0	93.2	81.9	93.9	81.8	8264	94.3
2002	7831.9	985.0	90.6	83.4	90.4	82.3	90.8	82.3	8017	91.5
2003	7781.2	985.0	91.1	83.8	90.5	82.8	90.2	82.8	8015	91.5
2004	7519.8	985.0	88.4	84.0	87.0	83.0	86.9	83.0	7843	89.3
2005	7394.8	985.0	86.1	84.1	85.9	83.1	85.7	83.1	7647	87.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		86			299	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1026			824		
D. Inspection, maintenance or repair without refuelling				32		
E. Testing of plant systems or components				2	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					57	
L. Human factor related					7	
Subtotal	1026	86	0	858	365	0
Total		1112			1223	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
14. Safety Systems	75	3
15. Reactor Cooling Systems		21
16. Steam generation systems		245
31. Turbine and auxiliaries		7
32. Feedwater and Main Steam System		14
33. Circulating Water System		0
41. Main Generator Systems		4
42. Electrical Power Supply Systems	11	2
Total	86	296

BE-3 TIHANGE-1

Operator: ELECTRAB (ELECTRABEL M. V. NUCLEAIRE PRODUKTIE)

Contractor: ACLF ((ACECOWEN - CREUSOT LOIRE - FRAMATOME))

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 962.0 MW(e)
Design Net Capacity: 870.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6811.0 GW(e).h
Energy Availability Factor: 80.2%
Load Factor: 80.8%
Operating Factor: 84.5%
Energy Unavailability Factor: 19.8%
Total Off-line Time: 1357 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	713.1	656.7	724.8	680.0	727.5	686.1	668.4	646.5	290.7	0.0	335.2	682.0	6811.0
EAF (%)	98.1	100.0	100.0	96.4	100.0	99.8	94.6	90.3	42.0	0.0	47.9	94.6	80.2
UCF (%)	98.7	100.0	100.0	96.4	100.0	99.9	95.7	99.6	53.5	0.0	54.6	94.7	82.7
LF (%)	99.6	101.6	101.3	98.3	101.6	99.0	93.4	90.3	42.0	0.0	48.4	95.3	80.8
OF (%)	100.0	100.0	99.9	98.7	100.0	100.0	98.1	100.0	54.0	0.0	64.3	100.0	84.5
EUF (%)	1.9	0.0	0.0	3.6	0.0	0.2	5.4	9.7	58.0	100.0	52.1	5.4	19.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.6	100.0	11.2	0.0	13.3
UCLF (%)	1.3	0.0	0.0	3.6	0.0	0.1	4.3	0.5	0.0	0.0	34.2	5.3	4.1
XUF (%)	0.6	0.0	0.0	0.0	0.0	0.1	1.1	9.2	11.5	0.0	6.7	0.1	2.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

FULL POWER DURING 01/2005 EXCEPT JANUARY, 8 AND 9 : PROBLEMS ON RCV.FULL POWER DURING 2005.INSPECTION AND MAINTENANCE OPERATIONS WITH REFUELLING FROM 17/09 TO 11/11.REPLACEMENT OF MAIN TRANSFORMER 26/11 TO 05/12. 2 AUTOMATIC SCRAM ON 19/07 AND 11/11. NO POWER REVISION IN 2005.

5. Historical Summary

Date of Construction Start:	01 Jun 1970	Lifetime Generation:	199011.0 GW(e).h
Date of First Criticality:	21 Feb 1975	Cumulative Energy Availability Factor:	82.8%
Date of Grid Connection:	07 Mar 1975	Cumulative Load Factor:	82.5%
Date of Commercial Operation:	01 Oct 1975	Cumulative Unit Capability Factor:	88.9%
		Cumulative Energy Unavailability Factor:	17.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	1463.0	870.0	100.0	100.0	76.2	76.2	76.2	76.2	2087	94.5
1976	4409.5	870.0	100.0	100.0	57.5	61.3	57.7	61.4	6354	72.3
1977	5842.3	870.0	100.0	100.0	76.7	68.1	76.7	68.2	7234	82.6
1978	6371.0	870.0	100.0	100.0	84.3	73.1	83.6	72.9	7582	86.6
1979	5159.0	870.0	100.0	100.0	67.6	71.8	67.7	71.7	6121	69.9
1980	6173.0	870.0	80.7	96.3	80.7	73.5	80.8	73.4	7337	83.5
1981	6414.2	870.0	100.0	96.9	83.8	75.1	84.2	75.1	7762	88.6
1982	6164.8	870.0	80.9	94.7	80.8	75.9	80.9	75.9	7269	83.0
1983	5843.0	870.0	76.6	92.5	76.5	76.0	76.7	76.0	7135	81.4
1984	6374.0	870.0	83.4	91.5	83.4	76.8	83.4	76.8	7774	88.5
1985	5979.0	870.0	90.8	91.5	81.1	77.2	78.5	77.0	8077	92.2
1986	4005.0	870.0	59.2	88.6	54.8	75.2	52.6	74.8	5429	62.0
1987	7337.0	870.0	98.5	89.4	97.6	77.0	96.3	76.6	8733	99.7
1988	6310.0	870.0	84.9	89.1	83.9	77.6	82.6	77.0	7520	85.6
1989	6508.0	870.0	88.4	89.0	87.9	78.3	85.4	77.6	7854	89.7
1990	6683.0	870.0	90.9	89.1	88.4	78.9	87.7	78.3	8082	92.3
1991	6163.0	870.0	86.7	89.0	81.0	79.1	80.9	78.4	7714	88.1
1992	6059.0	870.0	80.5	88.5	79.1	79.1	79.3	78.5	7807	88.9
1993	7317.0	870.0	99.8	89.1	96.4	80.0	96.0	79.4	8459	96.6
1994	6737.0	863.0	90.7	89.2	90.0	80.5	89.1	79.9	8018	91.5
1995	5442.0	931.0	72.9	88.4	70.0	80.0	70.4	79.5	6488	74.1
1996	7210.7	931.0	88.4	88.4	88.2	80.4	88.2	79.9	7823	89.1
1997	7942.6	962.0	95.5	88.7	94.3	81.1	94.3	80.6	8385	95.7
1998	7264.0	962.0	87.4	88.7	86.3	81.3	86.2	80.9	7777	88.8
1999	7272.0	962.0	86.9	88.6	85.5	81.5	86.3	81.1	7905	90.2
2000	8457.0	962.0	99.3	89.0	99.3	82.3	100.1	81.9	8782	100.0
2001	6969.0	962.0	91.2	89.1	82.5	82.3	82.7	82.0	7481	85.4
2002	7047.2	962.0	86.0	89.0	83.9	82.4	83.6	82.0	7631	87.1
2003	7990.4	962.0	95.5	89.3	95.1	82.9	94.8	82.5	8552	97.6
2004	7106.5	962.0	84.5	89.1	84.5	82.9	84.1	82.6	7456	84.9
2005	6811.0	962.0	82.7	88.9	80.2	82.8	80.8	82.5	7403	84.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		270			98	
C. Inspection, maintenance or repair combined with refuelling	1162			843		
D. Inspection, maintenance or repair without refuelling				13		
G. Major back-fitting, refurbishment or upgrading activities without refuelling						9
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	92
L. Human factor related					0	
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant , spare part delivery problems etc.)			48			
Z. Others					1	
Subtotal	1162	270	48	856	104	101
Total		1480			1061	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		10
14. Safety Systems		2
15. Reactor Cooling Systems	161	29
16. Steam generation systems	10	15
31. Turbine and auxiliaries		13
32. Feedwater and Main Steam System		11
33. Circulating Water System		1
35. All other I&C Systems		0
41. Main Generator Systems	55	
42. Electrical Power Supply Systems	44	11
XX. Miscellaneous Systems		1
Total	270	93

BE-6 TIHANGE-2

Operator: ELECTRAB (ELECTRABEL M. V. NUCLEAIRE PRODUKTIE)

Contractor: FRAMACEC (FRAMACECO (FRAMATOME-ACEC-COCKERILL))

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1008.0 MW(e)
Design Net Capacity: 902.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7890.0 GW(e).h
Energy Availability Factor: 89.5%
Load Factor: 89.4%
Operating Factor: 90.5%
Energy Unavailability Factor: 10.5%
Total Off-line Time: 831 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	758.3	681.0	290.7	320.4	744.1	710.7	728.2	729.7	709.8	729.0	725.8	762.4	7890.0
EAF (%)	100.0	99.7	38.9	43.8	99.0	99.2	98.8	98.4	99.2	97.9	99.4	99.8	89.5
UCF (%)	100.0	99.9	39.0	44.0	100.0	100.0	100.0	100.0	100.0	98.5	100.0	100.0	90.1
LF (%)	101.1	100.5	38.8	44.2	99.2	97.9	97.1	97.3	97.8	97.1	100.0	101.7	89.4
OF (%)	100.0	100.0	39.2	48.4	100.0	100.0	100.0	100.0	100.0	98.9	100.0	100.0	90.5
EUF (%)	0.0	0.3	61.1	56.2	1.0	0.8	1.2	1.6	0.8	2.1	0.6	0.2	10.5
PUF (%)	0.0	0.1	61.0	55.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
UCLF (%)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.1
XUF (%)	0.0	0.2	0.1	0.2	1.0	0.8	1.2	1.6	0.8	0.6	0.6	0.2	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

MAINTENANCE AND REFUELLING OPERATIONS : 13/03.FULL POWER DURING ALL THE YEAR EXCEPT REFUELLING AND NO SCRAM.NO POWER REVISION IN 2005.

5. Historical Summary

Date of Construction Start: 01 Apr 1976 **Lifetime Generation:** 163303.0 GW(e).h
Date of First Criticality: 05 Oct 1982 **Cumulative Energy Availability Factor:** 87.4%
Date of Grid Connection: 13 Oct 1982 **Cumulative Load Factor:** 87.2%
Date of Commercial Operation: 01 Jul 1983 **Cumulative Unit Capability Factor:** 88.7%
Cumulative Energy Unavailability Factor: 12.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	3390.0	901.0	85.2	85.2	85.2	85.2	85.2	85.2	3906	88.4
1984	6856.0	901.0	86.4	86.0	86.4	86.0	86.6	86.1	7693	87.6
1985	6636.0	900.0	89.4	87.4	87.8	86.7	84.2	85.4	7890	90.1
1986	6189.0	900.0	85.0	86.7	83.1	85.7	78.5	83.4	7509	85.7
1987	6584.0	900.0	84.3	86.1	83.4	85.2	83.5	83.4	7477	85.4
1988	6966.0	900.0	89.9	86.8	87.9	85.7	88.1	84.3	7992	91.0
1989	6663.0	901.0	86.0	86.7	84.7	85.5	84.4	84.3	7728	88.2
1990	6919.0	901.0	88.5	86.9	88.0	85.9	87.7	84.7	7827	89.3
1991	6850.0	901.0	88.4	87.1	87.7	86.1	86.8	85.0	7790	88.9
1992	6746.0	901.0	89.7	87.4	86.9	86.2	85.2	85.0	7912	90.1
1993	6555.0	901.0	86.4	87.3	83.6	85.9	83.1	84.8	7507	85.7
1994	7585.0	894.0	98.3	88.2	96.7	86.9	96.9	85.9	8501	97.0
1995	6849.0	930.0	90.2	88.4	85.0	86.7	84.9	85.8	7697	87.9
1996	7253.0	955.0	88.6	88.4	87.0	86.7	87.5	85.9	7810	88.9
1997	6854.0	960.0	82.3	88.0	81.3	86.3	81.5	85.6	7241	82.7
1998	7664.0	960.0	91.0	88.2	90.6	86.6	91.1	86.0	8015	91.5
1999	8111.0	960.0	95.5	88.6	95.5	87.2	96.4	86.6	8380	95.7
2000	7481.0	960.0	89.4	88.7	88.0	87.2	88.7	86.8	7901	89.9
2001	6976.0	960.0	80.8	88.2	80.7	86.9	83.0	86.5	7137	81.5
2002	7833.4	1008.0	89.0	88.3	87.9	86.9	88.7	86.7	7821	89.3
2003	7601.0	1008.0	86.3	88.2	85.6	86.8	86.1	86.6	7589	86.6
2004	8517.3	1008.0	96.4	88.6	96.0	87.3	96.2	87.1	8478	96.5
2005	7890.0	1008.0	90.1	88.7	89.5	87.4	89.4	87.2	7929	90.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		8			121	
B. Refuelling without a maintenance					16	
C. Inspection, maintenance or repair combined with refuelling	900			700		
D. Inspection, maintenance or repair without refuelling				96		
E. Testing of plant systems or components					3	
G. Major back-fitting, refurbishment or upgrading activities without refuelling						17
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				16	30	
Subtotal	900	8	0	812	170	17
Total		908			999	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
12. Reactor I&C Systems		7
14. Safety Systems		2
15. Reactor Cooling Systems		17
16. Steam generation systems		31
31. Turbine and auxiliaries	8	10
32. Feedwater and Main Steam System		9
41. Main Generator Systems		2
42. Electrical Power Supply Systems		13
Total	8	96

BE-8 TIHANGE-3**Operator:** ELECTRAB (ELECTRABEL M. V. NUCLEAIRE PRODUKTIE)**Contractor:** ACECOWEN (ACECOWEN (ACEC-COCKERILL-WESTINGHOUSE))**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1015.0 MW(e)

Design Net Capacity: 1006.0 MW(e)

Design Discharge Burnup: 45000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8707.5 GW(e).h

Energy Availability Factor: 99.6%

Load Factor: 97.9%

Operating Factor: 99.9%

Energy Unavailability Factor: 0.4%

Total Off-line Time: 7 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	752.8	681.2	743.0	720.9	729.9	705.3	726.8	731.3	706.7	737.8	720.7	751.3	8707.5
EAF (%)	99.4	99.8	98.5	99.3	98.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6
UCF (%)	100.0	100.0	98.8	100.0	98.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8
LF (%)	99.7	99.9	98.4	98.8	96.7	96.5	96.3	96.8	96.7	97.6	98.6	99.5	97.9
OF (%)	100.0	100.0	98.9	100.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9
EUF (%)	0.6	0.2	1.5	0.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	1.2	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
XUF (%)	0.6	0.2	0.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

FULL POWER DURING THE YEAR, NO INSPECTION AND REFUELLING. 1 SCRAM 22/03. NO POWER REVISION IN 2005.

5. Historical Summary

Date of Construction Start: 01 Nov 1978 **Lifetime Generation:** 159958.0 GW(e).h

Date of First Criticality: 05 Jun 1985 **Cumulative Energy Availability Factor:** 88.0%

Date of Grid Connection: 15 Jun 1985 **Cumulative Load Factor:** 87.7%

Date of Commercial Operation: 01 Sep 1985 **Cumulative Unit Capability Factor:** 89.7%

Cumulative Energy Unavailability Factor: 12.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985			Data not provided							
1986	7558.0	1020.0	86.5	86.5	85.6	85.6	84.6	84.6	7733	88.3
1987	7829.0	1020.0	89.0	87.8	87.3	86.4	87.6	86.1	7872	89.9
1988	7623.0	1020.0	87.4	87.6	85.0	86.0	85.1	85.8	7773	88.5
1989	7749.0	1020.0	87.5	87.6	87.0	86.2	86.7	86.0	7790	88.9
1990	7794.0	1020.0	90.0	88.1	87.1	86.4	87.2	86.2	7924	90.5
1991	7649.0	1020.0	88.3	88.1	86.2	86.4	85.6	86.1	7903	90.2
1992	8335.0	1020.0	93.4	88.9	93.3	87.4	93.0	87.1	8246	93.9
1993	7748.0	1020.0	89.5	88.9	88.1	87.4	86.7	87.1	7874	89.9
1994	7480.0	1015.0	86.8	88.7	84.7	87.1	84.1	86.7	7666	87.5
1995	7559.0	1015.0	86.7	88.5	84.7	86.9	85.0	86.6	7632	87.1
1996	7189.0	1015.0	81.1	87.8	81.1	86.4	80.6	86.0	7142	81.3
1997	8357.0	1015.0	99.2	88.8	94.4	87.0	94.0	86.7	8342	95.2
1998	6738.0	1015.0	77.9	87.9	75.9	86.2	75.8	85.9	6903	78.8
1999	8799.0	1015.0	99.1	88.7	98.9	87.1	99.0	86.8	8686	99.2
2000	7597.0	1015.0	86.4	88.6	84.9	86.9	85.2	86.7	7656	87.2
2001	7729.0	1015.0	89.9	88.7	86.5	86.9	86.9	86.7	7929	90.5
2002	8340.5	1015.0	95.7	89.1	93.7	87.3	93.8	87.1	8368	95.5
2003	7661.5	1015.0	89.4	89.1	86.5	87.3	86.2	87.1	7846	89.6
2004	7936.4	1015.0	90.4	89.2	89.2	87.4	89.0	87.2	7969	90.7
2005	8707.5	1015.0	99.8	89.7	99.6	88.0	97.9	87.7	8753	99.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		9			135	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	660					
D. Inspection, maintenance or repair without refuelling	6					
E. Testing of plant systems or components	1					
G. Major back-fitting, refurbishment or upgrading activities without refuelling	26					19
H. Nuclear regulatory requirements					2	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	7					
Subtotal	0	9	0	700	142	19
Total		9			861	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		7
15. Reactor Cooling Systems		21
16. Steam generation systems	9	52
31. Turbine and auxiliaries		35
32. Feedwater and Main Steam System		2
33. Circulating Water System		10
41. Main Generator Systems		2
42. Electrical Power Supply Systems		3
Total	9	132

BR-1 ANGRA-1**Operator:** ELETRONU (ELETROBRAS TERMONUCLEAR SA - ELETRONUCLEAR)**Contractor:** WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 626.0 MW(e)

Design Net Capacity: 626.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3520.4 GW(e).h

Energy Availability Factor: 83.0%

Load Factor: 64.2%

Operating Factor: 83.0%

Energy Unavailability Factor: 17.0%

Total Off-line Time: 1485 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	338.7	290.4	0.0	78.1	344.3	358.3	358.3	364.6	361.1	369.8	344.5	312.2	3520.4
EAF (%)	100.0	89.3	0.0	26.6	95.4	98.5	99.1	100.0	100.0	100.0	98.6	89.4	83.0
UCF (%)	100.0	89.3	0.0	26.6	95.4	98.5	99.1	100.0	100.0	100.0	98.6	89.4	83.0
LF (%)	72.7	69.0	0.0	17.3	73.9	79.5	76.9	78.3	80.1	79.3	76.4	67.0	64.2
OF (%)	100.0	89.3	0.0	26.7	95.4	98.5	99.1	100.0	100.0	99.9	98.6	89.4	83.0
EUF (%)	0.0	10.7	100.0	73.4	4.6	1.5	0.9	0.0	0.0	0.0	1.4	10.6	17.0
PUF (%)	0.0	10.7	100.0	73.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	16.2
UCLF (%)	0.0	0.0	0.0	0.0	4.6	1.5	0.9	0.0	0.0	0.0	1.4	0.0	0.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE UNIT WAS SHUTDOWN IN 25/02 TO BEGGING OF REFUELLING OUTAGE 1P13 AND FINISHED IN 21/04 WHEN WAS SYNCHRONIZED TO THE ELECTRICAL SYSTEM. IN DECEMBER, THE 26TH, THE UNIT HAD A PROGRAMMED LOAD REDUCTION IN ORDER TO REPAIR A REFRIGERANT GAS LEAKAGE IN THE MAIN ELECTRICAL GENERATOR FROM THE FASE B OUTLET BUSH. IN DEC. THE 29TH AFTER THE REPAIR, THE UNIT WAS SINCRONIZED TO THE GRID.DURING THE REST OF THE YEAR, THE UNIT OPERATED IN LOAD FOLLOWING MODE TO COMPLY WITH THE NATIONAL DISPATCH.

5. Historical Summary

Date of Construction Start: 01 May 1971 **Lifetime Generation:** 49058.3 GW(e).h

Date of First Criticality: 13 Mar 1982 **Cumulative Energy Availability Factor:** 51.4%

Date of Grid Connection: 01 Apr 1982 **Cumulative Load Factor:** 41.0%

Date of Commercial Operation: 01 Jan 1985 **Cumulative Unit Capability Factor:** 59.7%

Cumulative Energy Unavailability Factor: 48.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	3169.4	626.0	57.8	57.8	57.8	57.8	57.8	57.8	6847	78.2
1986	132.4	626.0	3.7	30.7	3.7	30.7	2.4	30.1	512	5.8
1987	910.6	626.0	19.7	27.1	19.7	27.1	16.6	25.6	1958	22.4
1988	566.6	626.0	18.5	24.9	18.5	24.9	10.3	21.8	1488	16.9
1989	1695.1	626.0	61.8	32.3	61.3	32.2	30.9	23.6	5362	61.2
1990	2055.3	626.0	86.1	41.3	82.5	40.6	37.5	25.9	7400	84.5
1991	1306.4	626.0	57.2	43.5	57.2	43.0	23.8	25.6	5046	57.6
1992	1506.4	626.0	47.9	44.1	47.9	43.6	27.4	25.8	4275	48.7
1993	402.7	626.0	17.2	41.1	17.2	40.6	7.3	23.8	1524	17.4
1994	41.5	626.0	83.8	45.4	3.5	36.9	0.8	21.5	305	3.5
1995	2333.6	626.0	92.8	49.7	42.6	37.4	42.6	23.4	8127	92.8
1996	2288.8	626.0	67.0	51.1	55.2	38.9	41.6	24.9	5063	57.6
1997	2990.0	626.0	60.7	51.9	53.2	40.0	54.5	27.2	6219	71.0
1998	3093.8	626.0	56.4	52.2	56.4	41.2	56.4	29.3	6976	79.6
1999	3631.7	626.0	65.2	53.0	64.8	42.8	66.2	31.7	8429	96.2
2000	3164.9	626.0	58.7	53.4	58.7	43.8	57.6	33.4	6514	74.2
2001	3614.4	626.0	82.9	55.1	82.9	46.1	65.9	35.3	7295	83.3
2002	3775.2	626.0	87.7	56.9	85.9	48.3	68.8	37.1	7595	86.7
2003	3137.1	626.0	74.5	57.9	57.2	48.7	57.2	38.2	6551	74.8
2004	3890.2	626.0	70.7	58.5	70.7	49.8	70.7	39.8	7968	90.7
2005	3520.4	626.0	83.0	59.7	83.0	51.4	64.2	41.0	7275	83.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		62			1586	0
B. Refuelling without a maintenance				43	5	
C. Inspection, maintenance or repair combined with refuelling	1344			984		
D. Inspection, maintenance or repair without refuelling	79			210	13	
E. Testing of plant systems or components				78	0	
H. Nuclear regulatory requirements				61	0	12
J. Grid failure or grid unavailability					6	3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					28	13
L. Human factor related					0	343
Subtotal	1423	62	0	1376	1638	371
Total		1485			3385	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	7	
12. Reactor I&C Systems	11	32
13. Reactor Auxiliary Systems		102
15. Reactor Cooling Systems		5
16. Steam generation systems		35
21. Fuel Handling and Storage Facilities		360
31. Turbine and auxiliaries	10	124
32. Feedwater and Main Steam System	34	61
33. Circulating Water System		8
41. Main Generator Systems		510
42. Electrical Power Supply Systems		284
Total	62	1521

BR-2 ANGRA-2**Operator:** ELETRONU (ELETROBRAS TERMONUCLEAR SA - ELETRONUCLEAR)**Contractor:** KWU (SIEMENS KRAFTWERK UNION AG)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1275.0 MW(e)

Design Net Capacity: 1245.0 MW(e)

Design Discharge Burnup: 35000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5676.7 GW(e).h

Energy Availability Factor: 63.7%

Load Factor: 50.8%

Operating Factor: 63.7%

Energy Unavailability Factor: 36.3%

Total Off-line Time: 3179 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	700.0	751.0	789.8	616.3	751.2	777.1	731.0	560.3	0.0	5676.7
EAF (%)	0.0	0.0	0.0	100.0	100.0	100.0	83.9	100.0	100.0	98.5	80.0	0.0	63.7
UCF (%)	0.0	0.0	0.0	100.0	100.0	100.0	83.9	100.0	100.0	98.5	80.0	0.0	63.7
LF (%)	0.0	0.0	0.0	76.2	79.2	86.0	65.0	79.2	84.7	77.1	61.0	0.0	50.8
OF (%)	0.0	0.0	0.0	100.0	100.0	100.0	83.9	100.0	100.0	98.5	80.0	0.0	63.7
EUF (%)	100.0	100.0	100.0	0.0	0.0	0.0	16.1	0.0	0.0	1.5	20.0	100.0	36.3
PUF (%)	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	27.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	16.1	0.0	0.0	1.5	20.0	71.0	9.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

WE HAVE HAD PROBLEMS WITH OUR MAIN TRANSFORMERS IN 2005: TWO TRANSFORMERS BURNED. FIRST OCCURRED A SHORT CIRCUIT AND SECOND A FIRE IN THE HIGH VOLTAGE BUSHING. IN 2005, DURING THREE MONTHS WE HAVE SHUTDOWN THE PLANT TO SEARCH FOR A LEAKAGE (PRIMARY WATER) IN THE MAIN ELECTRIC GENERATOR ROTOR. DURING THE REST OF THE TIME IN 2005 WE OPERATED IN LOAD FOLLOWING MODE TO COMPLY WITH A REQUEST OF THE NATIONAL DISPATCH.

5. Historical Summary

Date of Construction Start: 01 Jan 1976 **Lifetime Generation:** 43579.8 GW(e).h

Date of First Criticality: 14 Jul 2000 **Cumulative Energy Availability Factor:** 79.6%

Date of Grid Connection: 21 Jul 2000 **Cumulative Load Factor:** 73.0%

Date of Commercial Operation: 01 Feb 2001 **Cumulative Unit Capability Factor:** 82.5%

Cumulative Energy Unavailability Factor: 20.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2001	9272.9	1350.0	94.3	94.3	94.2	94.2	85.7	85.7	7797	97.3
2002	9238.2	1275.0	91.3	92.8	83.3	88.7	82.7	84.2	8060	92.0
2003	9419.0	1275.0	91.0	92.2	84.3	87.2	84.3	84.2	8019	91.5
2004	6919.8	1275.0	72.8	87.3	72.8	83.6	61.8	78.6	6497	74.0
2005	5676.7	1275.0	63.7	82.5	63.7	79.6	50.8	73.0	5581	63.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		275			290	
C. Inspection, maintenance or repair combined with refuelling	216	528		342		
D. Inspection, maintenance or repair without refuelling	2160			188		
E. Testing of plant systems or components				9		
J. Grid failure or grid unavailability						5
Subtotal	2376	803	0	539	290	5
Total	3179			834		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		104
15. Reactor Cooling Systems		5
16. Steam generation systems		0
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System	11	
41. Main Generator Systems		129
42. Electrical Power Supply Systems	264	48
Total	275	288

BG-3 KOZLODUY-3

Operator: KOZNPP (KOZLODUY NPP-plc)

Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 408.0 MW(e)
Design Net Capacity: 408.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2974.8 GW(e).h
Energy Availability Factor: 91.1%
Load Factor: 83.2%
Operating Factor: 91.6%
Energy Unavailability Factor: 8.9%
Total Off-line Time: 739 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	291.2	271.0	298.8	221.7	158.2	50.3	178.2	294.2	292.1	306.9	300.3	311.8	2974.8
EAF (%)	100.0	100.0	100.0	100.0	100.0	33.5	59.5	100.0	100.0	99.6	100.0	100.0	91.1
UCF (%)	100.0	100.0	100.0	100.0	100.0	33.5	59.5	100.0	100.0	99.6	100.0	100.0	91.1
LF (%)	95.9	98.9	98.5	75.6	52.1	17.1	58.7	96.9	99.4	101.0	102.2	102.7	83.2
OF (%)	100.0	100.0	100.0	100.1	100.0	33.5	65.1	100.0	100.0	99.9	100.0	100.0	91.6
EUF (%)	0.0	0.0	0.0	0.0	0.0	66.5	40.5	0.0	0.0	0.4	0.0	0.0	8.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	66.5	40.4	0.0	0.0	0.0	0.0	0.0	8.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT 3 HAS OPERATED IN BASE LOAD MODE AT POWER LEVEL 98-100% IN THE AUTUMN AND THE WINTER AND AT LOWER POWER 55% IN ACCORDANCE WITH THE REVISED LOAD SCHEDULE IN APRIL (INCREASING OF THE WATER RECURSES AND FORCED HYDRO POWER PLANT PERFORMANCE).

5. Historical Summary

Date of Construction Start:	01 Oct 1973	Lifetime Generation:	59764.0 GW(e).h
Date of First Criticality:	04 Dec 1980	Cumulative Energy Availability Factor:	75.1%
Date of Grid Connection:	17 Dec 1980	Cumulative Load Factor:	66.6%
Date of Commercial Operation:	20 Jan 1981	Cumulative Unit Capability Factor:	79.4%
		Cumulative Energy Unavailability Factor:	24.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	2896.7	408.0	86.4	86.4	86.4	86.4	81.0	81.0	7845	89.6
1982	2652.3	408.0	88.5	87.4	88.5	87.4	74.2	77.6	7743	88.4
1983	2748.9	408.0	83.6	86.2	83.6	86.2	76.9	77.4	7324	83.6
1984	3135.4	408.0	93.4	88.0	93.4	88.0	87.5	79.9	8206	93.4
1985	3204.8	408.0	94.2	89.2	94.2	89.2	89.7	81.9	8253	94.2
1986	2688.1	408.0	77.4	87.3	77.4	87.3	75.2	80.8	8173	93.3
1987	2752.6	408.0	82.6	86.6	82.4	86.6	77.0	80.2	7239	82.6
1988	3119.0	408.0	92.7	87.4	92.3	87.3	87.0	81.1	8181	93.1
1989	2429.0	408.0	72.8	85.7	72.6	85.7	68.0	79.6	6520	74.4
1990	2606.9	408.0	78.2	85.0	78.2	84.9	72.9	79.0	7715	88.1
1991	2171.9	408.0	61.7	82.9	61.7	82.8	60.8	77.3	5607	64.0
1992	2336.5	408.0	73.0	82.1	73.0	82.0	65.2	76.3	7727	88.0
1993	1933.0	408.0	78.6	81.8	52.2	79.7	54.1	74.6	7416	84.7
1994	1082.7	408.0	40.3	78.8	40.3	76.9	30.3	71.4	4255	48.6
1995	2747.2	408.0	97.3	80.1	86.9	77.5	76.9	71.8	8682	99.1
1996	1021.0	408.0	82.2	80.2	82.2	77.8	28.5	69.1	3193	36.4
1997	2225.4	408.0	80.1	80.2	80.1	78.0	62.3	68.7	7020	80.1
1998	2150.0	408.0	80.8	80.2	59.3	76.9	60.2	68.2	8584	98.0
1999	1684.7	408.0	49.2	78.6	48.8	75.5	47.1	67.1	4656	53.2
2000	2166.9	440.0	75.5	78.4	62.9	74.8	56.2	66.5	6736	76.9
2001	2249.8	408.0	98.8	79.4	62.5	74.2	62.9	66.3	8712	99.5
2002	1779.7	408.0	63.4	78.7	63.4	73.7	49.8	65.6	5574	63.6
2003	2477.9	408.0	82.9	78.8	82.9	74.1	69.3	65.8	7392	84.4
2004	2531.0	408.0	81.2	78.9	81.2	74.4	70.6	66.0	7160	81.5
2005	2974.8	408.0	91.1	79.4	91.1	75.1	83.2	66.6	8021	91.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					28	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	739			989		
D. Inspection, maintenance or repair without refuelling				90		
E. Testing of plant systems or components				16	0	
J. Grid failure or grid unavailability					0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
Subtotal	739	0	0	1095	28	0
Total		739			1123	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
13. Reactor Auxiliary Systems		4
15. Reactor Cooling Systems		4
16. Steam generation systems		8
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		4
41. Main Generator Systems		0
42. Electrical Power Supply Systems		0
Total	0	23

BG-4 KOZLODUY-4

Operator: KOZNPP (KOZLODUY NPP-plc)

Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 408.0 MW(e)
Design Net Capacity: 408.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2739.3 GW(e).h
Energy Availability Factor: 89.2%
Load Factor: 76.6%
Operating Factor: 92.0%
Energy Unavailability Factor: 10.8%
Total Off-line Time: 702 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	306.1	277.0	165.9	152.0	186.3	282.2	214.8	11.0	229.7	305.6	298.6	310.1	2739.3
EAF (%)	100.0	100.0	100.0	100.0	100.0	99.9	70.9	3.6	98.5	99.7	100.0	100.0	89.2
UCF (%)	100.0	100.0	100.0	100.0	100.0	99.9	93.7	3.6	98.5	99.7	100.0	100.0	91.1
LF (%)	100.8	101.0	54.7	51.8	61.4	96.0	70.8	3.6	78.2	100.5	101.7	102.1	76.6
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	94.2	11.4	100.0	99.9	100.0	100.0	92.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	29.1	96.4	1.5	0.3	0.0	0.0	10.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	5.8	96.4	1.4	0.1	0.0	0.0	8.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.1	0.1	0.0	0.0	0.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	22.8	0.0	0.0	0.0	0.0	0.0	1.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT 4 HAS OPERATED IN BASE LOAD MODE AT POWER LEVEL 95-100% IN THE AUTUMN AND THE WINTER. THE UNIT 4 LOAD SCHEDULE (PRELIMINARY AGREED WITH THE GRID OPERATOR) WAS REVISED IN APRIL BY GRID OPERATOR REQUEST (INCREASING OF THE WATER RECOURSES AND FORCED HYDRO POWER PLANT PERFORMANCE). IT IS CAUSED A CHANGE OF THE PLANNED OUTAGE PERIOD AND COAST DOWN OPERATION IN JULY.

5. Historical Summary

Date of Construction Start:	01 Oct 1973	Lifetime Generation:	57854.0 GW(e).h
Date of First Criticality:	25 Apr 1982	Cumulative Energy Availability Factor:	74.4%
Date of Grid Connection:	17 May 1982	Cumulative Load Factor:	68.4%
Date of Commercial Operation:	20 Jun 1982	Cumulative Unit Capability Factor:	78.2%
		Cumulative Energy Unavailability Factor:	25.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	1797.8	408.0	100.0	100.0	85.8	85.8	85.8	85.8	5024	97.8
1983	2867.2	408.0	92.7	95.4	92.7	90.1	80.2	82.3	8116	92.6
1984	3252.6	408.0	93.8	94.8	93.7	91.5	90.8	85.6	8238	93.8
1985	3031.0	408.0	86.3	92.4	86.3	90.0	84.8	85.4	7812	89.2
1986	3168.0	408.0	92.5	92.4	92.3	90.5	88.6	86.1	8154	93.1
1987	3026.3	408.0	91.2	92.2	91.2	90.6	84.7	85.8	8080	92.2
1988	2902.0	408.0	87.8	91.5	87.8	90.2	81.0	85.1	8139	92.7
1989	2842.1	408.0	86.5	90.9	86.4	89.7	79.5	84.3	8129	92.8
1990	2569.1	408.0	78.7	89.5	78.7	88.4	71.9	82.9	7223	82.5
1991	2170.6	408.0	64.4	86.8	64.4	85.9	60.7	80.6	5661	64.6
1992	2316.9	408.0	70.2	85.3	70.2	84.4	64.6	79.1	6997	79.7
1993	2081.3	408.0	71.6	84.1	65.9	82.8	58.2	77.3	6277	71.7
1994	1094.4	408.0	31.4	79.9	31.4	78.8	30.6	73.6	4112	46.9
1995	2516.4	408.0	84.7	80.3	81.5	79.0	70.4	73.3	7424	84.7
1996	2401.1	408.0	71.2	79.6	71.2	78.4	67.0	72.9	8743	99.5
1997	1524.4	408.0	49.5	77.7	49.5	76.6	42.7	71.0	4338	49.5
1998	1929.2	408.0	57.9	76.5	57.4	75.4	54.0	69.9	6633	75.7
1999	1938.5	408.0	92.9	77.5	55.7	74.3	54.2	69.1	8736	99.7
2000	2418.4	440.0	78.0	77.5	69.7	74.0	62.7	68.7	6922	79.0
2001	1777.9	408.0	64.9	76.8	49.7	72.8	49.7	67.7	5777	65.9
2002	2025.6	408.0	82.5	77.1	74.9	72.9	56.7	67.2	6589	75.2
2003	2527.0	408.0	76.6	77.1	76.6	73.1	70.7	67.4	6735	76.9
2004	2943.4	408.0	89.6	77.6	89.6	73.8	82.1	68.0	7921	90.2
2005	2739.3	408.0	91.1	78.2	89.2	74.4	76.6	68.4	8058	92.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					29	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	702			1041		
D. Inspection, maintenance or repair without refuelling				76		
E. Testing of plant systems or components				4		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
Subtotal	702	0	0	1121	29	0
Total	702			1150		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
14. Safety Systems		0
15. Reactor Cooling Systems		14
16. Steam generation systems		2
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		7
41. Main Generator Systems		1
42. Electrical Power Supply Systems		0
Total	0	26

BG-5 KOZLODUY-5**Operator:** KOZNPP (KOZLODUY NPP-plc)**Contractor:** AEE (ATOMENERGOEXPORT)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 953.0 MW(e)

Design Net Capacity: 953.0 MW(e)

Design Discharge Burnup: 27000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5513.5 GW(e).h

Energy Availability Factor: 75.2%

Load Factor: 66.0%

Operating Factor: 75.8%

Energy Unavailability Factor: 24.8%

Total Off-line Time: 2119 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	695.9	603.0	515.6	498.2	298.2	0.0	0.0	212.3	612.9	692.1	677.8	707.6	5513.5
EAFF (%)	100.0	95.0	100.0	100.0	59.1	0.0	0.0	50.5	100.0	100.0	99.9	100.0	75.2
UCF (%)	100.0	95.0	100.0	100.0	59.1	0.0	0.0	50.6	100.0	100.0	100.0	100.0	75.2
LF (%)	98.2	94.2	72.7	72.7	42.1	0.0	0.0	29.9	89.3	97.5	98.8	99.8	66.0
OF (%)	100.0	100.0	100.0	100.1	59.1	0.0	0.0	52.8	100.0	99.9	100.0	100.0	75.8
EUF (%)	0.0	5.0	0.0	0.0	40.9	100.0	100.0	49.5	0.0	0.0	0.1	0.0	24.8
PUF (%)	0.0	0.0	0.0	0.0	40.9	100.0	100.0	49.5	0.0	0.0	0.0	0.0	24.4
UCLF (%)	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

A LOT OF MODERNIZATION PROJECTS WERE FINALIZED DURING PLANNED OUTAGE IN ACCORDANCE WITH THE LONG TERM MODERNIZATION PROGRAM IMPLEMENTATION PLAN. THE MOST IMPORTANT IMPLEMENTED PROJECTS DURING 2005 WERE: REPLACEMENT OF TURBINE AUTOMATIC CONTROL SYSTEM ON BASE OF OVATION PLATFORM; REPLACEMENT OF THE PRIMARY LOOPS INSULATION; UNIT RELAY PROTECTION; EMERGENCY DIESEL GENERATORS PROTECTION; INSTALLATION OF COLD OVERPRESSURIZATION SYSTEM ETC.

5. Historical Summary

Date of Construction Start: 09 Jul 1980 **Lifetime Generation:** 70439.0 GW(e).h

Date of First Criticality: 05 Nov 1987 **Cumulative Energy Availability Factor:** 60.7%

Date of Grid Connection: 29 Nov 1987 **Cumulative Load Factor:** 49.2%

Date of Commercial Operation: 23 Dec 1988 **Cumulative Unit Capability Factor:** 64.3%

Cumulative Energy Unavailability Factor: 39.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	635.9	887.0	100.0	100.0	100.0	100.0	96.4	96.4	744	100.0
1989	3355.1	953.0	51.5	55.1	51.5	55.1	40.2	44.3	4663	53.2
1990	3380.9	953.0	58.1	56.5	41.8	48.7	40.5	42.5	5592	63.8
1991	1950.4	953.0	31.7	48.5	31.7	43.2	23.4	36.3	2777	31.7
1992	3540.7	953.0	56.7	50.5	47.0	44.1	42.3	37.7	4982	56.7
1993	3278.0	953.0	50.5	50.5	47.5	44.8	39.3	38.0	4675	53.4
1994	2880.4	953.0	52.6	50.8	48.1	45.3	34.5	37.5	4350	49.7
1995	4699.3	953.0	68.1	53.3	59.4	47.3	56.3	40.1	5988	68.4
1996	4720.3	953.0	73.8	55.8	73.8	50.6	56.4	42.1	6468	73.6
1997	4410.2	953.0	68.7	57.2	68.7	52.6	52.8	43.3	6034	68.9
1998	3741.0	953.0	73.3	58.8	73.3	54.6	44.8	43.5	6467	73.8
1999	3423.2	953.0	54.8	58.5	50.4	54.3	41.0	43.2	4838	55.2
2000	4340.8	1000.0	63.4	58.9	54.3	54.3	49.6	43.8	5406	61.7
2001	5049.6	953.0	66.6	59.5	61.5	54.8	60.5	45.1	5940	67.8
2002	5095.8	953.0	79.8	60.9	79.4	56.6	61.0	46.2	7003	79.9
2003	5596.7	953.0	98.6	63.4	98.6	59.3	67.0	47.6	8579	97.9
2004	4842.0	953.0	67.2	63.6	67.2	59.8	57.8	48.2	5906	67.2
2005	5513.5	953.0	75.2	64.3	75.2	60.7	66.0	49.2	6641	75.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					189	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	2119			1608		
D. Inspection, maintenance or repair without refuelling				243		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				136		
H. Nuclear regulatory requirements				34		
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						0
Subtotal	2119	0	0	2021	191	2
Total	2119			2214		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		1
15. Reactor Cooling Systems		10
16. Steam generation systems		13
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		20
32. Feedwater and Main Steam System		20
35. All other I&C Systems		2
41. Main Generator Systems		114
42. Electrical Power Supply Systems		3
Total	0	185

1. Station Details

2. Production Summary 2005

Net Energy Production:	6150.0 GW(e).h
Energy Availability Factor:	76.9%
Load Factor:	73.7%
Operating Factor:	77.3%
Energy Unavailability Factor:	23.1%
Total Off-line Time:	1988 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	693.7	622.0	702.8	679.1	669.0	643.7	663.5	524.9	0.0	0.0	240.7	710.7	6150.0
EAF (%)	100.0	98.3	100.0	100.0	100.0	100.0	99.8	84.7	0.0	0.1	40.4	100.0	76.9
UCF (%)	100.0	98.3	100.0	100.0	100.0	100.0	100.0	84.7	0.0	0.1	40.4	100.0	77.0
LF (%)	97.8	97.1	99.1	99.1	94.3	93.8	93.6	74.0	0.0	0.0	35.1	100.2	73.7
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	84.7	0.0	0.0	43.1	100.0	77.3
EUf (%)	0.0	1.7	0.0	0.0	0.0	0.0	0.2	15.3	100.0	99.9	59.6	0.0	23.1
PUf (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3	100.0	99.9	59.6	0.0	22.9
UCLF (%)	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT 6 OF KOZLODUY NPP IS OPERATED 9 YEARS WITHOUT ANY UNPLANNED REACTOR SCRAM. A LOT OF MODERNIZATION PROJECTS WERE FINALIZED DURING PLANNED OUTAGE IN ACCORDANCE WITH THE LONG TERM MODERNIZATION PROGRAM IMPLEMENTATION PLAN. THE MOST IMPORTANT IMPLEMENTED PROJECTS DURING 2005 WERE: REPLACEMENT OF PRIMARY CIRCUIT EQUIPMENT CONTROL SYSTEM ON BASE OF OVATION PLATFORM; REPLACEMENT OF REACTOR PROTECTION SYSTEM; REPLACEMENT OF THE PRIMARY LOOPS INSULATION; UNIT RELAY PROTECTION; EMERGENCY DIESEL GENERATORS PROTECTION; INSTALLATION OF COLD OVERPRESSURIZATION SYSTEM ETC.

5. Historical Summary

Date of Construction Start:	01 Apr 1982	Lifetime Generation:	57936.0 GW(e).h
Date of First Criticality:	29 May 1991	Cumulative Energy Availability Factor:	68.7%
Date of Grid Connection:	02 Aug 1991	Cumulative Load Factor:	57.2%
Date of Commercial Operation:	30 Dec 1993	Cumulative Unit Capability Factor:	71.9%
		Cumulative Energy Unavailability Factor:	31.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	59.9	953.0	91.2	91.2	91.2	91.2	8.4	8.4	678	91.1
1994	4862.6	953.0	88.7	88.9	87.6	87.9	58.2	54.3	7817	89.2
1995	3831.9	953.0	63.6	76.8	63.6	76.2	45.9	50.3	5568	63.6
1996	5495.9	953.0	76.2	76.6	76.2	76.2	65.7	55.3	6698	76.3
1997	4825.4	953.0	72.8	75.7	72.8	75.4	57.8	55.9	6380	72.8
1998	3970.0	953.0	63.7	73.3	63.7	73.1	47.6	54.3	6079	69.4
1999	4407.8	953.0	69.6	72.7	60.7	71.1	52.8	54.0	6194	70.7
2000	4064.3	1000.0	66.7	71.8	51.1	68.1	46.4	52.9	5772	65.9
2001	4189.4	953.0	63.4	70.8	50.4	66.0	50.2	52.6	5441	62.1
2002	5324.9	953.0	71.5	70.9	71.5	66.6	63.8	53.8	6256	71.4
2003	5480.6	953.0	72.9	71.1	72.9	67.2	65.6	55.0	6474	73.9
2004	5298.1	953.0	75.3	71.4	75.2	67.9	63.3	55.7	6614	75.3
2005	6150.0	953.0	77.0	71.9	76.9	68.7	73.7	57.2	6772	77.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1992 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					235	
C. Inspection, maintenance or repair combined with refuelling	1988			1467		
D. Inspection, maintenance or repair without refuelling				161		
E. Testing of plant systems or components				12	0	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				154		
J. Grid failure or grid unavailability						5
Subtotal	1988	0	0	1794	235	5
Total	1988			2034		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1992 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
14. Safety Systems		36
41. Main Generator Systems		10
42. Electrical Power Supply Systems		180
Total	0	232

CA-10 BRUCE-3

Operator: BRUCEPOW (BRUCE POWER)

Contractor: NEI.P (NEI PARSONS)

1. Station Details

Type: PHWR
Net Reference Unit Power
at the beginning of 2005: 750.0 MW(e)
Design Net Capacity: 750.0 MW(e)
Design Discharge Burnup: 8750 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4938.1 GW(e).h
Energy Availability Factor: 75.2%
Load Factor: 75.2%
Operating Factor: 77.4%
Energy Unavailability Factor: 24.8%
Total Off-line Time: 1978 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	131.8	0.0	334.0	369.3	560.2	535.1	553.9	545.4	330.4	555.1	538.9	483.9	4938.1
EAF (%)	23.6	0.0	59.9	68.7	100.0	100.0	100.0	97.8	61.2	99.5	100.0	86.0	75.2
UCF (%)	23.6	0.0	59.9	68.7	100.0	100.0	100.0	99.9	61.8	100.0	100.0	86.0	75.5
LF (%)	23.6	0.0	59.9	68.4	100.4	99.1	99.3	97.8	61.2	99.5	99.8	86.7	75.2
OF (%)	24.7	0.0	75.3	70.7	100.0	100.0	100.0	100.0	63.6	100.0	100.0	88.0	77.4
EUF (%)	76.4	100.0	40.1	31.3	0.0	0.0	0.0	2.2	38.8	0.5	0.0	14.0	24.8
PUF (%)	75.2	100.0	35.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.1
UCLF (%)	1.1	0.0	4.6	31.3	0.0	0.0	0.0	0.1	38.2	0.0	0.0	14.0	7.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.6	0.5	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jul 1972
Date of First Criticality: 28 Nov 1977
Date of Grid Connection: 12 Dec 1977
Date of Commercial Operation: 01 Feb 1978

Lifetime Generation: 99868.0 GW(e).h
Cumulative Energy Availability Factor: 72.2%
Cumulative Load Factor: 72.0%
Cumulative Unit Capability Factor: 73.1%
Cumulative Energy Unavailability Factor: 27.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	4793.0	740.0	92.1	92.1	87.6	87.6	82.0	82.0	7361	93.2
1979	4797.9	740.0	77.8	84.5	77.8	82.4	73.2	77.4	6885	77.7
1980	5939.8	740.0	91.4	86.9	91.4	85.5	91.4	82.2	8276	94.2
1981	5795.0	740.0	89.5	87.6	89.5	86.5	89.4	84.0	7873	89.9
1982	6381.9	740.0	96.7	89.4	96.7	88.6	98.4	87.0	8497	97.0
1983	6091.1	740.0	89.2	89.4	89.2	88.7	94.0	88.1	7905	90.2
1984	6148.7	740.0	91.2	89.7	91.2	89.1	94.6	89.1	8077	92.0
1985	6015.1	775.0	93.9	90.2	88.6	89.0	88.6	89.0	8118	92.7
1986	5891.2	848.0	86.9	89.8	84.2	88.4	84.5	88.5	7600	86.8
1987	6073.3	848.0	85.8	89.4	81.9	87.7	81.8	87.7	7724	88.2
1988	3310.6	848.0	45.6	84.9	45.6	83.4	44.4	83.3	4044	46.0
1989	4031.7	848.0	57.4	82.4	54.8	80.8	54.3	80.7	5364	61.2
1990	5652.7	848.0	76.8	81.9	76.3	80.4	76.1	80.3	7472	85.3
1991	6126.3	848.0	84.3	82.1	82.4	80.6	82.5	80.5	7950	90.8
1992	5801.0	848.0	77.9	81.8	77.9	80.4	77.9	80.3	7438	84.7
1993	3158.2	848.0	43.0	79.2	43.0	77.9	42.5	77.7	6557	74.9
1994	2737.6	848.0	36.9	76.5	36.9	75.3	36.9	75.2	5006	57.1
1995	4225.8	848.0	56.9	75.4	56.9	74.2	56.9	74.1	7000	79.9
1996	3321.5	848.0	44.6	73.7	44.6	72.5	44.6	72.4	5684	64.7
1997	4214.8	848.0	56.8	72.8	56.8	71.7	56.7	71.6	6325	72.2
1998	1642.5	848.0	81.6	72.9	81.6	71.8	81.6	71.7	2328	98.1
1999	Data not available - Long-term shutdown									
2000	"									
2001	"									
2002	"									
2003	"									
2004	4971.6	750.0	76.5	73.0	76.1	72.0	75.3	71.9	7154	81.4
2005	4938.1	750.0	75.5	73.1	75.2	72.2	75.2	72.0	6782	77.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		474			642	
B. Refuelling without a maintenance					7	
D. Inspection, maintenance or repair without refuelling	1415			553		
E. Testing of plant systems or components				19	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	17
L. Human factor related		89				
Subtotal	1415	563	0	572	651	17
Total		1978			1240	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		76
12. Reactor I&C Systems	473	36
13. Reactor Auxiliary Systems		24
14. Safety Systems		50
15. Reactor Cooling Systems		69
16. Steam generation systems	1	131
31. Turbine and auxiliaries		117
32. Feedwater and Main Steam System		34
35. All other I&C Systems		6
41. Main Generator Systems		73
42. Electrical Power Supply Systems		6
XX. Miscellaneous Systems		1
Total	474	623

CA-11 BRUCE-4

Operator: BRUCEPOW (BRUCE POWER)

Contractor: NEI.P (NEI PARSONS)

1. Station Details

Type: PHWR
 Net Reference Unit Power
 at the beginning of 2005: 750.0 MW(e)
 Design Net Capacity: 733.0 MW(e)
 Design Discharge Burnup: 8750 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5499.1 GW(e).h
 Energy Availability Factor: 83.7%
 Load Factor: 83.7%
 Operating Factor: 85.3%
 Energy Unavailability Factor: 16.3%
 Total Off-line Time: 1291 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	559.6	504.8	204.5	9.8	458.3	539.0	549.3	537.5	531.7	558.3	486.7	559.6	5499.1
EAF (%)	100.0	100.0	36.9	1.8	80.8	100.0	99.3	96.3	98.5	100.0	90.6	100.0	83.7
UCF (%)	100.0	100.0	36.9	1.8	80.8	100.0	99.3	99.9	100.0	100.0	90.6	100.0	84.1
LF (%)	100.3	100.2	36.6	1.8	82.1	99.8	98.4	96.3	98.5	100.1	90.1	100.3	83.7
OF (%)	100.0	100.0	36.8	5.1	88.3	100.0	100.0	100.0	100.0	100.0	92.9	100.0	85.3
EUf (%)	0.0	0.0	63.1	98.2	19.2	0.0	0.7	3.7	1.5	0.0	9.4	0.0	16.3
PUf (%)	0.0	0.0	63.1	94.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1
UCLF (%)	0.0	0.0	0.0	3.9	19.2	0.0	0.7	0.1	0.0	0.0	9.4	0.0	2.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	1.5	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Sep 1972 Lifetime Generation: 93871.0 GW(e).h
 Date of First Criticality: 10 Dec 1978 Cumulative Energy Availability Factor: 69.3%
 Date of Grid Connection: 21 Dec 1978 Cumulative Load Factor: 69.2%
 Date of Commercial Operation: 18 Jan 1979 Cumulative Unit Capability Factor: 70.2%
 Cumulative Energy Unavailability Factor: 30.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	4966.4	740.0	84.8	84.8	84.8	84.8	80.4	80.4	7084	84.8
1980	4945.1	740.0	76.1	80.4	76.1	80.4	76.1	78.2	6962	79.3
1981	5753.5	740.0	89.1	83.3	89.1	83.3	88.8	81.7	7874	89.9
1982	6050.2	740.0	92.2	85.6	92.2	85.6	93.3	84.7	8150	93.0
1983	6407.4	740.0	94.3	87.3	94.3	87.3	98.8	87.5	8345	95.3
1984	6664.6	740.0	97.8	89.1	97.8	89.1	102.5	90.1	8625	98.2
1985	4995.2	808.0	79.0	87.6	73.2	86.7	72.3	87.4	6518	74.4
1986	6891.6	848.0	95.5	88.7	92.8	87.5	92.8	88.1	8644	98.7
1987	5045.0	848.0	71.5	86.6	67.9	85.1	67.9	85.6	6366	72.7
1988	4663.7	848.0	66.9	84.4	65.7	83.0	62.6	83.1	5997	68.3
1989	5584.2	848.0	77.0	83.7	75.3	82.2	75.2	82.3	7290	83.2
1990	3533.0	848.0	48.3	80.5	47.5	79.1	47.6	79.2	4611	52.6
1991	5940.7	848.0	81.6	80.6	79.9	79.2	80.0	79.3	7955	90.8
1992	5843.4	848.0	80.1	80.6	78.4	79.1	78.4	79.2	8070	91.9
1993	350.1	848.0	4.7	75.2	4.7	73.9	4.7	73.9	527	6.0
1994	3656.0	848.0	49.3	73.5	49.3	72.2	49.2	72.3	7206	82.3
1995	3034.9	848.0	40.9	71.5	40.9	70.3	40.9	70.4	5024	57.4
1996	5296.3	848.0	71.2	71.4	71.2	70.3	71.1	70.4	8686	98.9
1997	2923.0	848.0	39.4	69.7	39.4	68.6	39.3	68.7	4968	56.7
1998	12.3	848.0	0.8	68.9	0.8	67.9	0.8	67.9	45	2.5
1999	Data not available - Long-term shutdown									
2000	"									
2001	"									
2002	"									
2003	Data not provided									
2004	5418.8	750.0	83.4	69.6	83.4	68.6	82.3	68.6	7469	85.0
2005	5499.1	750.0	84.1	70.2	83.7	69.3	83.7	69.2	7469	85.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		106			813	
B. Refuelling without a maintenance					4	
D. Inspection, maintenance or repair without refuelling	1124			577		
E. Testing of plant systems or components				56		
H. Nuclear regulatory requirements					5	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					15	23
L. Human factor related		60			3	
Subtotal	1124	166	0	633	840	23
Total		1290			1496	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		119
12. Reactor I&C Systems		42
14. Safety Systems		13
15. Reactor Cooling Systems		80
16. Steam generation systems		222
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		55
32. Feedwater and Main Steam System	55	38
35. All other I&C Systems		129
41. Main Generator Systems		23
42. Electrical Power Supply Systems	51	26
XX. Miscellaneous Systems		13
Total	106	761

CA-18 BRUCE-5**Operator:** BRUCEPOW (BRUCE POWER)**Contractor:** OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)**1. Station Details**

Type: PHWR

Net Reference Unit Power at the beginning of 2005: 790.0 MW(e)

Design Net Capacity: 750.0 MW(e)

Design Discharge Burnup: 7710 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5109.6 GW(e).h

Energy Availability Factor: 74.1%

Load Factor: 73.8%

Operating Factor: 76.2%

Energy Unavailability Factor: 25.9%

Total Off-line Time: 2082 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	579.9	525.4	550.5	348.3	583.3	564.0	577.5	574.6	556.1	135.9	0.0	114.1	5109.6
EAF (%)	98.7	99.0	93.7	62.0	100.0	100.0	98.3	97.8	97.8	24.4	0.0	19.4	74.1
UCF (%)	98.7	99.0	93.7	62.0	100.0	100.0	100.0	100.0	99.6	24.5	0.0	19.4	74.6
LF (%)	98.7	99.0	93.7	61.2	99.2	99.2	98.3	97.8	97.8	23.1	0.0	19.4	73.8
OF (%)	100.0	100.0	94.8	66.7	100.0	100.0	100.0	100.0	100.0	24.7	0.0	29.7	76.2
EUF (%)	1.3	1.0	6.3	38.0	0.0	0.0	1.7	2.2	2.2	75.6	100.0	80.6	25.9
PUF (%)	1.3	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.4	75.5	100.0	50.3	19.2
UCLF (%)	0.0	0.0	5.2	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3	6.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.2	1.9	0.1	0.0	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Jun 1978 **Lifetime Generation:** 124149.0 GW(e).h

Date of First Criticality: 15 Nov 1984 **Cumulative Energy Availability Factor:** 82.3%

Date of Grid Connection: 02 Dec 1984 **Cumulative Load Factor:** 82.3%

Date of Commercial Operation: 01 Mar 1985 **Cumulative Unit Capability Factor:** 83.0%

Cumulative Energy Unavailability Factor: 17.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	4992.2	815.0	91.6	91.6	85.9	85.9	84.2	84.2	6324	86.1
1986	7078.0	835.0	98.4	95.4	96.7	91.8	96.8	91.2	8675	99.0
1987	5730.1	835.0	80.2	90.0	78.2	87.0	78.3	86.6	7197	82.2
1988	6673.6	860.0	88.5	89.6	88.5	87.4	88.3	87.1	7824	89.1
1989	7130.8	860.0	97.1	91.2	94.1	88.8	94.7	88.7	8589	98.0
1990	5534.7	860.0	74.6	88.3	73.5	86.1	73.5	86.0	6656	76.0
1991	6769.6	860.0	90.7	88.6	90.3	86.8	89.9	86.6	8130	92.8
1992	6452.1	860.0	85.8	88.3	85.8	86.6	85.4	86.4	7636	86.9
1993	5118.3	860.0	68.1	86.0	68.1	84.5	67.9	84.3	7457	85.1
1994	5629.3	860.0	75.0	84.8	75.0	83.5	74.7	83.3	7671	87.6
1995	6125.3	860.0	81.4	84.5	81.4	83.3	81.3	83.1	7859	89.7
1996	5767.6	860.0	76.4	83.8	76.4	82.7	76.3	82.6	7153	81.4
1997	6388.3	860.0	84.8	83.9	84.8	82.9	84.8	82.7	8148	93.0
1998	5623.1	785.0	81.7	83.7	81.7	82.8	81.8	82.7	7305	83.4
1999	5281.9	785.0	76.6	83.3	76.6	82.4	76.8	82.3	6719	76.7
2000	6908.7	785.0	99.1	84.2	99.1	83.4	100.2	83.4	8719	99.3
2001	4902.1	790.0	70.9	83.5	70.9	82.7	70.8	82.7	6220	71.0
2002	5993.1	790.0	86.3	83.6	86.3	82.9	86.6	82.9	7630	87.1
2003	5302.5	790.0	77.3	83.3	77.3	82.6	76.6	82.6	6783	77.4
2004	5889.1	790.0	85.1	83.4	85.1	82.7	84.9	82.7	7543	85.9
2005	5109.6	790.0	74.6	83.0	74.1	82.3	73.8	82.3	6678	76.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		132			293	
D. Inspection, maintenance or repair without refuelling	1592	211		737	1	
E. Testing of plant systems or components				9		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					6	19
L. Human factor related		147				
Subtotal	1592	490	0	746	300	19
Total		2082			1065	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		33
13. Reactor Auxiliary Systems		14
14. Safety Systems		21
15. Reactor Cooling Systems	132	116
16. Steam generation systems		14
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries		11
32. Feedwater and Main Steam System		31
41. Main Generator Systems		19
42. Electrical Power Supply Systems		11
XX. Miscellaneous Systems		3
Total	132	274

CA-19 BRUCE-6

Operator: BRUCEPOW (BRUCE POWER)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR

Net Reference Unit Power at the beginning of 2005: 841.0 MW(e)

Design Net Capacity: 750.0 MW(e)

Design Discharge Burnup: 7710 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5721.1 GW(e).h

Energy Availability Factor: 79.6%

Load Factor: 78.9%

Operating Factor: 81.6%

Energy Unavailability Factor: 20.4%

Total Off-line Time: 1609 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	432.8	507.6	614.2	199.5	183.0	591.0	608.2	605.0	587.1	611.9	517.6	263.0	5721.1
EAF (%)	69.2	91.2	100.0	33.1	29.6	99.1	100.0	100.0	100.0	100.0	89.7	44.8	79.6
UCF (%)	69.2	91.2	100.0	33.1	29.6	99.2	100.0	100.0	100.0	100.0	89.7	44.8	79.6
LF (%)	69.2	90.8	99.2	33.3	29.6	98.7	99.4	98.9	99.2	100.1	87.5	43.0	78.9
OF (%)	70.6	94.9	100.0	35.4	42.6	100.0	100.0	100.0	100.0	100.0	91.7	45.7	81.6
EUF (%)	30.8	8.8	0.0	66.9	70.4	0.9	0.0	0.0	0.0	0.0	10.3	55.2	20.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	30.8	8.8	0.0	66.9	70.4	0.9	0.0	0.0	0.0	0.0	10.3	55.2	20.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1978

Date of First Criticality: 29 May 1984

Date of Grid Connection: 26 Jun 1984

Date of Commercial Operation: 14 Sep 1984

Lifetime Generation: 121965.0 GW(e).h

Cumulative Energy Availability Factor: 79.4%

Cumulative Load Factor: 79.2%

Cumulative Unit Capability Factor: 80.3%

Cumulative Energy Unavailability Factor: 20.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	2301.0	795.0	99.4	99.4	98.8	98.8	98.9	98.9	2926	99.9
1985	5900.1	815.0	88.7	91.3	84.0	87.7	83.7	87.4	7369	84.1
1986	5716.0	837.0	81.7	87.1	77.8	83.4	78.1	83.4	7213	82.3
1987	7017.1	837.0	97.9	90.4	95.3	87.0	95.7	87.1	8610	98.3
1988	6139.5	837.0	89.2	90.1	89.1	87.5	83.5	86.3	7880	89.7
1989	5386.2	837.0	78.9	88.0	73.4	84.8	73.5	83.8	7069	80.7
1990	6213.6	860.0	83.9	87.3	82.3	84.4	83.2	83.7	7429	84.8
1991	7013.4	860.0	93.3	88.2	93.0	85.6	93.1	85.1	8194	93.5
1992	5328.2	860.0	70.5	86.0	70.5	83.8	70.5	83.3	6393	72.8
1993	4351.0	860.0	58.0	82.9	58.0	81.0	57.8	80.5	6950	79.3
1994	6451.7	860.0	85.7	83.2	85.7	81.4	85.6	81.0	8760	100.0
1995	4671.6	860.0	62.1	81.3	62.1	79.7	62.0	79.3	6049	69.1
1996	6822.8	860.0	90.4	82.1	90.4	80.6	90.3	80.2	8682	98.8
1997	4796.4	860.0	63.7	80.7	63.7	79.3	63.7	78.9	6201	70.8
1998	4678.6	785.0	68.1	79.9	68.0	78.6	68.0	78.2	6137	70.1
1999	6860.1	785.0	99.4	81.0	99.3	79.8	99.8	79.5	8760	100.0
2000	4668.2	785.0	66.8	80.2	66.8	79.1	67.7	78.9	5912	67.3
2001	6840.1	790.0	98.3	81.2	98.3	80.1	98.8	79.9	8624	98.4
2002	3522.5	790.0	50.6	79.6	50.6	78.6	50.9	78.4	4539	51.8
2003	6750.9	790.0	98.2	80.5	98.2	79.6	97.6	79.4	8559	97.7
2004	5379.1	841.0	76.6	80.4	76.6	79.4	75.4	79.2	6698	76.3
2005	5721.1	822.0	79.6	80.3	79.6	79.4	78.9	79.2	7151	81.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1204			435	
B. Refuelling without a maintenance					5	
D. Inspection, maintenance or repair without refuelling				843	3	
E. Testing of plant systems or components				0	3	
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					21	19
L. Human factor related					3	
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)		404				
Subtotal	0	1608	0	843	470	22
Total		1608			1335	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		117
12. Reactor I&C Systems		56
14. Safety Systems		28
15. Reactor Cooling Systems	405	84
16. Steam generation systems		92
31. Turbine and auxiliaries	7	17
32. Feedwater and Main Steam System	97	16
33. Circulating Water System		10
41. Main Generator Systems		2
42. Electrical Power Supply Systems	695	1
Total	1204	423

CA-20 BRUCE-7**Operator:** BRUCEPOW (BRUCE POWER)**Contractor:** OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)**1. Station Details**

Type: PHWR

Net Reference Unit Power at the beginning of 2005: 790.0 MW(e)

Design Net Capacity: 750.0 MW(e)

Design Discharge Burnup: 7710 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4890.5 GW(e).h

Energy Availability Factor: 70.2%

Load Factor: 70.1%

Operating Factor: 72.0%

Energy Unavailability Factor: 29.8%

Total Off-line Time: 2450 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	571.4	438.1	586.6	564.7	124.7	0.0	0.0	315.5	557.8	583.1	561.3	587.3	4890.5
EAF (%)	97.8	82.9	100.0	99.6	21.3	0.0	0.0	52.6	96.1	97.4	96.7	97.9	70.2
UCF (%)	97.8	82.9	100.0	99.6	21.3	0.0	0.0	52.6	96.1	97.6	96.7	97.9	70.2
LF (%)	97.2	82.5	99.8	99.4	21.2	0.0	0.0	52.6	96.1	97.1	96.7	97.9	70.1
OF (%)	99.7	86.8	100.0	100.1	21.5	0.0	0.0	58.2	100.0	99.9	100.0	100.0	72.0
EUF (%)	2.2	17.1	0.0	0.4	78.7	100.0	100.0	47.4	3.9	2.6	3.3	2.1	29.8
PUF (%)	0.0	0.0	0.0	0.4	78.7	100.0	100.0	7.0	0.5	0.8	1.5	0.0	24.1
UCLF (%)	2.2	17.2	0.0	0.0	0.0	0.0	0.0	40.4	3.4	1.5	1.8	2.1	5.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 May 1979 **Lifetime Generation:** 117494.0 GW(e).h

Date of First Criticality: 07 Jan 1986 **Cumulative Energy Availability Factor:** 82.7%

Date of Grid Connection: 22 Feb 1986 **Cumulative Load Factor:** 82.2%

Date of Commercial Operation: 10 Apr 1986 **Cumulative Unit Capability Factor:** 83.8%

Cumulative Energy Unavailability Factor: 17.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	4952.8	837.0	96.7	96.7	89.8	89.8	89.7	89.7	6438	97.5
1987	6288.1	837.0	96.9	96.8	85.9	87.6	85.8	87.4	8489	96.9
1988	4866.2	860.0	74.8	88.7	74.8	82.9	65.4	79.4	6636	75.5
1989	7280.8	860.0	97.8	91.2	96.4	86.6	96.6	84.0	8632	98.5
1990	6659.4	860.0	90.7	91.1	88.5	87.0	88.4	85.0	8065	92.1
1991	5733.6	860.0	76.4	88.5	76.3	85.1	76.1	83.4	6835	78.0
1992	6413.4	860.0	85.2	88.0	85.1	85.1	84.9	83.6	7589	86.4
1993	5802.3	860.0	78.1	86.7	78.1	84.2	77.0	82.8	8760	100.0
1994	5496.7	860.0	73.2	85.2	73.2	82.9	73.0	81.7	7577	86.5
1995	6285.1	860.0	83.5	85.0	83.5	83.0	83.4	81.8	8092	92.4
1996	5475.7	860.0	72.6	83.8	72.5	82.0	72.5	81.0	7000	79.7
1997	6154.5	860.0	81.7	83.6	81.7	82.0	81.7	81.0	7874	89.9
1998	4990.8	785.0	72.4	82.8	72.4	81.3	72.6	80.4	6474	73.9
1999	6315.7	785.0	92.3	83.5	91.8	82.0	91.8	81.2	8208	93.7
2000	5322.7	785.0	78.2	83.1	76.9	81.7	77.2	80.9	6790	77.3
2001	7026.3	790.0	100.0	84.1	100.0	82.8	101.5	82.2	8760	100.0
2002	4819.4	790.0	69.5	83.3	69.5	82.0	69.6	81.5	6121	69.9
2003	6730.2	790.0	97.7	84.1	97.7	82.9	97.3	82.3	8592	98.1
2004	6428.8	790.0	92.8	84.5	92.8	83.4	92.6	82.8	8188	93.2
2005	4890.5	806.0	70.2	83.8	70.2	82.7	70.1	82.2	6310	72.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		2			268	
B. Refuelling without a maintenance					1	
D. Inspection, maintenance or repair without refuelling	2072	287		650		
E. Testing of plant systems or components				14		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	5
L. Human factor related		89				
Z. Others					11	
Subtotal	2072	378	0	664	285	5
Total		2450			954	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		30
13. Reactor Auxiliary Systems		3
15. Reactor Cooling Systems		69
16. Steam generation systems		15
31. Turbine and auxiliaries		14
32. Feedwater and Main Steam System		25
41. Main Generator Systems	2	5
42. Electrical Power Supply Systems		28
XX. Miscellaneous Systems		53
Total	2	245

CA-21 BRUCE-8**Operator:** BRUCEPOW (BRUCE POWER)**Contractor:** OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)**1. Station Details**

Type: PHWR

Net Reference Unit Power at the beginning of 2005: 790.0 MW(e)

Design Net Capacity: 750.0 MW(e)

Design Discharge Burnup: 7710 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6889.2 GW(e).h

Energy Availability Factor: 99.4%

Load Factor: 99.5%

Operating Factor: 99.8%

Energy Unavailability Factor: 0.6%

Total Off-line Time: 15 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	592.2	534.0	591.8	569.4	587.6	568.8	585.4	580.8	560.8	587.3	568.2	563.0	6889.2
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	98.6	100.0	99.9	96.0	99.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	96.0	99.7
LF (%)	100.8	100.6	100.7	100.2	100.0	100.0	99.6	98.8	98.6	99.8	99.9	95.8	99.5
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	98.0	99.8
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.4	0.0	0.1	4.0	0.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.4	0.0	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1979 **Lifetime Generation:** 108730.0 GW(e).h

Date of First Criticality: 15 Feb 1987 **Cumulative Energy Availability Factor:** 81.3%

Date of Grid Connection: 09 Mar 1987 **Cumulative Load Factor:** 80.9%

Date of Commercial Operation: 22 May 1987 **Cumulative Unit Capability Factor:** 82.8%

Cumulative Energy Unavailability Factor: 18.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	3673.2	837.0	95.7	95.7	74.7	74.7	74.6	74.6	5849	99.5
1988	5958.5	837.0	86.8	90.4	86.5	81.8	81.0	78.5	7659	87.2
1989	6523.5	837.0	98.4	93.4	89.2	84.6	89.0	82.4	8661	98.9
1990	5758.7	860.0	80.7	89.9	78.1	82.8	78.0	81.2	7186	82.0
1991	6932.7	860.0	93.0	90.6	92.5	84.9	92.0	83.6	8213	93.8
1992	5451.1	860.0	72.4	87.3	72.4	82.7	72.2	81.5	6587	75.0
1993	4675.9	860.0	62.3	83.5	62.3	79.6	62.1	78.6	7064	80.6
1994	6443.2	860.0	86.0	83.8	86.0	80.4	85.5	79.5	8760	100.0
1995	6113.4	860.0	81.3	83.6	81.3	80.5	81.1	79.7	7876	89.9
1996	6957.8	860.0	92.1	84.5	92.1	81.7	92.1	81.0	8783	100.0
1997	6346.5	860.0	84.2	84.4	84.2	82.0	84.2	81.3	8003	91.4
1998	4122.4	785.0	59.9	82.5	59.8	80.2	59.9	79.6	5368	61.3
1999	4114.4	785.0	60.0	80.8	59.8	78.7	59.8	78.1	5414	61.8
2000	6530.9	785.0	93.7	81.7	93.7	79.7	94.7	79.3	8293	94.4
2001	5424.8	790.0	78.0	81.5	78.0	79.6	78.4	79.2	6852	78.2
2002	6686.0	790.0	97.0	82.4	97.0	80.7	96.6	80.3	8543	97.5
2003	4960.0	790.0	71.9	81.8	71.9	80.2	71.7	79.8	6301	71.9
2004	5695.8	790.0	83.0	81.9	82.8	80.3	82.1	79.9	7374	83.9
2005	6889.2	790.0	99.7	82.8	99.4	81.3	99.5	80.9	8745	99.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		15			365	
B. Refuelling without a maintenance					2	
D. Inspection, maintenance or repair without refuelling				737	51	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					3	
L. Human factor related					2	
Subtotal	0	15	0	737	423	0
Total		15			1160	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		18
12. Reactor I&C Systems		5
14. Safety Systems		29
15. Reactor Cooling Systems		83
16. Steam generation systems		174
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		11
33. Circulating Water System		8
35. All other I&C Systems		2
41. Main Generator Systems	15	
42. Electrical Power Supply Systems		16
XX. Miscellaneous Systems		4
Total	15	354

CA-22 DARLINGTON-1

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
 Net Reference Unit Power
 at the beginning of 2005: 881.0 MW(e)
 Design Net Capacity: 881.0 MW(e)
 Design Discharge Burnup: 7790 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7366.3 GW(e).h
 Energy Availability Factor: 96.2%
 Load Factor: 95.7%
 Operating Factor: 97.6%
 Energy Unavailability Factor: 3.8%
 Total Off-line Time: 207 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	545.2	588.9	648.7	627.5	647.7	627.9	634.7	624.4	525.1	623.1	627.3	645.9	7366.3
EAF (%)	84.1	99.7	100.0	100.0	99.9	99.8	97.6	95.7	83.2	95.8	100.0	98.9	96.2
UCF (%)	84.1	99.7	100.0	100.0	100.0	100.0	100.0	99.9	85.3	96.9	100.0	98.9	97.0
LF (%)	83.2	99.5	99.0	99.3	99.2	99.3	97.2	95.6	83.1	95.4	99.2	98.9	95.7
OF (%)	85.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.5	98.7	100.0	100.0	97.6
EUF (%)	15.9	0.3	0.0	0.0	0.1	0.2	2.4	4.3	16.8	4.2	0.0	1.1	3.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	16.0	0.3	0.0	0.0	0.1	0.0	0.0	0.1	14.7	3.1	0.0	1.1	3.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.2	2.4	4.2	2.1	1.1	0.0	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DARLINGTON UNITS WERE RE-RATED AT THE END OF Q1-2005 FROM 881 MW(E) TO 878 MW(E)

5. Historical Summary

Date of Construction Start: 01 Apr 1982 Lifetime Generation: 88320.7 GW(e).h
 Date of First Criticality: 29 Oct 1990 Cumulative Energy Availability Factor: 82.9%
 Date of Grid Connection: 19 Dec 1990 Cumulative Load Factor: 82.3%
 Date of Commercial Operation: 14 Nov 1992 Cumulative Unit Capability Factor: 83.8%
 Cumulative Energy Unavailability Factor: 17.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1992	974.0	881.0	96.8	96.8	96.8	96.8	75.5	75.5	1152	78.7
1993	6016.2	881.0	79.2	81.7	78.7	81.3	78.0	77.6	7213	82.3
1994	6326.6	881.0	83.5	82.5	83.1	82.2	82.0	79.6	7446	85.0
1995	6853.3	881.0	90.7	85.1	89.7	84.5	88.8	82.5	8046	91.8
1996	5745.3	881.0	75.7	82.8	75.0	82.3	74.2	80.5	6827	77.7
1997	4765.1	881.0	63.0	79.0	62.3	78.4	61.7	76.9	7236	82.6
1998	6427.5	881.0	84.3	79.9	83.3	79.2	83.3	77.9	7717	88.1
1999	7175.1	881.0	94.4	81.9	93.0	81.1	93.0	80.0	8705	99.4
2000	6280.6	881.0	82.0	81.9	81.2	81.1	81.2	80.2	7615	86.7
2001	6980.8	881.0	91.2	82.9	90.5	82.1	90.5	81.3	8502	97.1
2002	6532.9	881.0	85.5	83.2	84.7	82.4	84.6	81.6	7887	90.0
2003	6562.4	881.0	87.5	83.5	85.1	82.6	85.0	81.9	7846	89.6
2004	5612.1	881.0	73.5	82.7	72.7	81.8	72.7	81.2	6540	74.7
2005	7366.3	878.0	97.0	83.8	96.2	82.9	95.7	82.3	8553	97.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1991 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		207			635	
D. Inspection, maintenance or repair without refuelling				665		
J. Grid failure or grid unavailability						5
Z. Others					1	
Subtotal	0	207	0	665	636	5
Total		207			1306	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1991 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		18
12. Reactor I&C Systems		51
13. Reactor Auxiliary Systems	107	
14. Safety Systems		25
15. Reactor Cooling Systems		335
21. Fuel Handling and Storage Facilities	49	32
31. Turbine and auxiliaries		16
32. Feedwater and Main Steam System		2
35. All other I&C Systems		43
41. Main Generator Systems		78
42. Electrical Power Supply Systems		14
XX. Miscellaneous Systems	51	9
Total	207	623

CA-23 DARLINGTON-2

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
 Net Reference Unit Power
 at the beginning of 2005: 881.0 MW(e)
 Design Net Capacity: 881.0 MW(e)
 Design Discharge Burnup: 7790 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6056.2 GW(e).h
 Energy Availability Factor: 78.9%
 Load Factor: 78.7%
 Operating Factor: 80.3%
 Energy Unavailability Factor: 21.1%
 Total Off-line Time: 1729 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	649.3	587.7	359.8	0.0	79.9	627.3	637.0	628.4	617.5	595.7	633.1	640.5	6056.2
EAF (%)	100.0	100.0	55.0	0.0	12.2	99.7	98.0	96.4	98.3	91.1	100.0	97.9	78.9
UCF (%)	100.0	100.0	55.0	0.0	12.2	99.7	99.9	99.9	100.0	91.6	100.0	100.0	79.7
LF (%)	99.1	99.3	54.9	0.0	12.2	99.2	97.5	96.2	97.7	91.2	100.1	98.1	78.7
OF (%)	100.0	100.0	55.2	0.0	16.1	100.0	100.0	100.0	100.0	93.0	100.0	100.0	80.3
EUF (%)	0.0	0.0	45.0	100.0	87.8	0.3	2.0	3.6	1.7	8.9	0.0	2.1	21.1
PUF (%)	0.0	0.0	44.8	100.0	41.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5
UCLF (%)	0.0	0.0	0.2	0.0	46.5	0.3	0.1	0.1	0.0	8.4	0.0	0.0	4.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.5	1.7	0.5	0.0	2.1	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DARLINGTON UNITS WERE RE-RATED AT THE END OF Q1-2005 FROM 881 MW(E) TO 878 MW(E)

5. Historical Summary

Date of Construction Start: 01 Sep 1981 Lifetime Generation: 87533.9 GW(e).h
 Date of First Criticality: 05 Nov 1989 Cumulative Energy Availability Factor: 73.3%
 Date of Grid Connection: 15 Jan 1990 Cumulative Load Factor: 73.0%
 Date of Commercial Operation: 09 Oct 1990 Cumulative Unit Capability Factor: 74.3%
 Cumulative Energy Unavailability Factor: 26.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	1153.5	881.0	64.9	64.9	64.9	64.9	65.7	65.7	1608	80.7
1991	51.5	881.0	0.7	12.6	0.7	12.6	0.7	12.7	102	1.2
1992	1290.2	881.0	16.7	14.4	16.7	14.4	16.7	14.5	2418	27.5
1993	6370.2	881.0	83.3	35.7	82.7	35.6	82.5	35.6	7594	86.7
1994	6750.8	881.0	88.9	48.3	88.5	48.1	87.5	47.8	8069	92.1
1995	6953.0	881.0	91.3	56.5	90.7	56.2	90.1	55.9	8104	92.5
1996	6705.7	881.0	87.8	61.6	87.2	61.2	86.7	60.9	7752	88.3
1997	4710.4	881.0	61.7	61.6	61.5	61.3	61.0	60.9	7069	80.7
1998	6227.9	881.0	81.9	64.0	80.7	63.6	80.7	63.3	7492	85.5
1999	6469.1	881.0	85.1	66.3	83.8	65.8	83.8	65.5	7824	89.3
2000	6885.4	881.0	90.1	68.7	89.0	68.1	89.0	67.8	8221	93.6
2001	5826.4	881.0	76.3	69.3	75.5	68.7	75.5	68.5	7030	80.3
2002	7268.9	881.0	95.4	71.5	94.2	70.8	94.2	70.6	8627	98.5
2003	6084.1	881.0	81.6	72.2	79.3	71.5	78.8	71.2	7245	82.7
2004	7038.4	881.0	96.7	74.0	91.4	72.9	91.0	72.6	8737	99.5
2005	6056.2	878.0	79.7	74.3	78.9	73.3	78.7	73.0	7031	80.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		52			833	
D. Inspection, maintenance or repair without refuelling	1332	345		427		
J. Grid failure or grid unavailability						4
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					409	
Subtotal	1332	397	0	427	1242	4
Total		1729			1673	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		40
12. Reactor I&C Systems		47
13. Reactor Auxiliary Systems		2
14. Safety Systems		14
15. Reactor Cooling Systems		531
16. Steam generation systems		77
17. Safety I&C Systems (excluding reactor I&C)		2
21. Fuel Handling and Storage Facilities		3
31. Turbine and auxiliaries	52	26
32. Feedwater and Main Steam System		9
35. All other I&C Systems		20
41. Main Generator Systems		12
42. Electrical Power Supply Systems		6
XX. Miscellaneous Systems		10
Total	52	799

CA-24 DARLINGTON-3

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR

Net Reference Unit Power
at the beginning of 2005: 881.0 MW(e)

Design Net Capacity: 881.0 MW(e)

Design Discharge Burnup: 7790 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7562.0 GW(e).h

Energy Availability Factor: 98.3%

Load Factor: 98.2%

Operating Factor: 100.0%

Energy Unavailability Factor: 1.7%

Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	590.9	595.6	658.1	633.3	650.0	628.9	636.4	624.6	610.1	647.8	631.7	654.6	7562.0
EAF (%)	89.8	100.0	100.0	100.0	99.7	99.8	97.9	95.8	97.1	99.2	100.0	100.0	98.3
UCF (%)	89.9	100.0	100.0	100.0	99.8	100.0	99.9	100.0	99.7	100.0	100.0	100.0	99.1
LF (%)	90.2	100.6	100.4	100.3	99.5	99.5	97.4	95.6	96.5	99.0	99.9	100.2	98.2
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	10.2	0.0	0.0	0.0	0.3	0.2	2.1	4.2	2.9	0.8	0.0	0.0	1.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
UCLF (%)	10.2	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.2	2.0	4.2	2.6	0.8	0.0	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DARLINGTON UNITS WERE RE-RATED AT THE END OF Q1-2005 FROM 881 MW(E) TO 878 MW(E)

5. Historical Summary

Date of Construction Start: 01 Sep 1984 Lifetime Generation: 84658.5 GW(e).h

Date of First Criticality: 09 Nov 1992 Cumulative Energy Availability Factor: 85.1%

Date of Grid Connection: 07 Dec 1992 Cumulative Load Factor: 84.6%

Date of Commercial Operation: 14 Feb 1993 Cumulative Unit Capability Factor: 86.0%

Cumulative Energy Unavailability Factor: 14.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	6003.4	881.0	89.8	89.8	89.2	89.2	85.0	85.0	7141	89.1
1994	6528.5	881.0	85.6	87.6	85.3	87.2	84.6	84.8	7642	87.2
1995	7061.5	881.0	92.9	89.5	92.2	88.9	91.5	87.1	8219	93.8
1996	7391.6	881.0	97.3	91.5	96.7	90.9	95.5	89.2	8574	97.6
1997	4010.8	881.0	52.4	83.5	52.1	83.0	52.0	81.7	6314	72.1
1998	7244.9	881.0	94.7	85.4	93.9	84.8	93.9	83.7	8593	98.1
1999	5629.1	881.0	75.1	83.9	72.9	83.1	72.9	82.2	6929	79.1
2000	6517.0	881.0	85.1	84.1	84.2	83.3	84.2	82.4	7822	89.0
2001	6578.0	881.0	86.3	84.3	85.2	83.5	85.2	82.7	7901	90.2
2002	6371.8	881.0	83.7	84.2	82.6	83.4	82.6	82.7	7595	86.7
2003	6827.2	881.0	89.5	84.7	88.6	83.9	88.5	83.3	8004	91.4
2004	6601.6	881.0	86.9	84.9	85.6	84.0	85.3	83.4	7649	87.1
2005	7562.0	878.0	99.1	86.0	98.3	85.1	98.2	84.6	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1993 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					279	
B. Refuelling without a maintenance					6	
D. Inspection, maintenance or repair without refuelling				601		
E. Testing of plant systems or components					11	
Subtotal	0	0	0	601	296	0
Total	0			897		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1993 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		28
13. Reactor Auxiliary Systems		14
14. Safety Systems		5
15. Reactor Cooling Systems		83
16. Steam generation systems		25
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		58
35. All other I&C Systems		40
42. Electrical Power Supply Systems		13
XX. Miscellaneous Systems		7
Total	0	276

CA-25 DARLINGTON-4

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR

Net Reference Unit Power
at the beginning of 2005: 881.0 MW(e)

Design Net Capacity: 881.0 MW(e)

Design Discharge Burnup: 7790 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6569.7 GW(e).h

Energy Availability Factor: 85.6%

Load Factor: 85.3%

Operating Factor: 87.0%

Energy Unavailability Factor: 14.4%

Total Off-line Time: 1143 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	635.0	589.7	655.7	348.1	649.6	628.0	632.7	601.7	591.0	0.0	581.7	656.5	6569.7
EAF (%)	100.0	100.0	100.0	53.6	99.9	99.8	97.3	92.2	93.8	0.0	92.1	100.0	85.6
UCF (%)	100.0	100.0	100.0	53.6	99.9	100.0	99.8	96.8	96.4	0.0	92.1	100.0	86.5
LF (%)	96.9	99.6	100.0	55.1	99.4	99.3	96.8	92.1	93.5	0.0	92.0	100.5	85.3
OF (%)	100.0	100.0	100.0	55.7	100.0	100.0	100.0	98.8	96.7	0.0	93.5	100.0	87.0
EUF (%)	0.0	0.0	0.0	46.4	0.1	0.2	2.7	7.8	6.2	100.0	7.9	0.0	14.4
PUF (%)	0.0	0.0	0.0	46.4	0.0	0.0	0.0	0.0	3.3	80.6	1.4	0.0	11.0
UCLF (%)	0.0	0.0	0.0	0.0	0.1	0.0	0.2	3.2	0.3	19.4	6.5	0.0	2.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.2	2.6	4.7	2.5	0.0	0.0	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DARLINGTON UNITS WERE RE-RATED AT THE END OF Q1-2005 FROM 881 MW(E) TO 878 MW(E)

5. Historical Summary

Date of Construction Start: 01 Jul 1985 Lifetime Generation: 82010.0 GW(e).h

Date of First Criticality: 13 Mar 1993 Cumulative Energy Availability Factor: 84.1%

Date of Grid Connection: 17 Apr 1993 Cumulative Load Factor: 83.7%

Date of Commercial Operation: 14 Jun 1993 Cumulative Unit Capability Factor: 84.8%

 Cumulative Energy Unavailability Factor: 15.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	3057.8	881.0	74.0	74.0	73.9	73.9	67.6	67.6	3616	70.4
1994	7038.7	881.0	92.2	85.5	91.8	85.2	91.2	82.5	8143	93.0
1995	6750.6	881.0	88.1	86.5	87.7	86.2	87.5	84.4	7751	88.5
1996	6105.4	881.0	79.4	84.5	79.1	84.2	78.9	82.9	7023	80.0
1997	5069.6	881.0	66.0	80.5	65.7	80.2	65.7	79.1	7428	84.8
1998	6520.9	881.0	85.3	81.3	84.5	81.0	84.5	80.1	7699	87.9
1999	6216.1	881.0	81.6	81.4	80.5	80.9	80.5	80.2	7431	84.8
2000	6975.0	881.0	90.8	82.6	90.1	82.1	90.1	81.5	8219	93.6
2001	6836.3	881.0	89.6	83.4	88.6	82.9	88.6	82.3	8037	91.7
2002	7449.8	881.0	97.3	84.9	96.5	84.3	96.5	83.8	8760	100.0
2003	5428.9	881.0	72.3	83.7	70.6	83.0	70.3	82.5	6320	72.1
2004	7321.1	881.0	95.2	84.7	94.6	84.0	94.6	83.6	8451	96.2
2005	6569.7	878.0	86.5	84.8	85.6	84.1	85.3	83.7	7617	87.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1993 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		200			334	
D. Inspection, maintenance or repair without refuelling	943			569		
E. Testing of plant systems or components				26	4	
J. Grid failure or grid unavailability						7
Z. Others					21	
Subtotal	943	200	0	595	359	7
Total		1143			961	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1993 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		47
13. Reactor Auxiliary Systems		15
14. Safety Systems		26
15. Reactor Cooling Systems	191	130
16. Steam generation systems		6
31. Turbine and auxiliaries	9	46
32. Feedwater and Main Steam System		7
33. Circulating Water System		11
42. Electrical Power Supply Systems		31
XX. Miscellaneous Systems		11
Total	200	330

CA-12 GENTILLY-2

Operator: HQ (HYDRO QUEBEC)
Contractor: BBC (BROWN BOVERI ET CIE)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 635.0 MW(e)
Design Net Capacity: 645.0 MW(e)
Design Discharge Burnup: 7000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4486.2 GW(e).h
Energy Availability Factor: 83.5%
Load Factor: 80.6%
Operating Factor: 83.7%
Energy Unavailability Factor: 16.5%
Total Off-line Time: 1431 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	461.0	413.8	459.4	217.8	0.0	225.7	451.5	452.7	444.7	462.2	447.7	449.7	4486.2
EAF (%)	100.0	100.0	100.0	50.0	0.0	54.6	100.0	100.0	100.0	100.0	100.0	97.9	83.5
UCF (%)	100.0	100.0	100.0	50.0	0.0	54.6	100.0	100.0	100.0	100.0	100.0	100.0	83.7
LF (%)	97.6	97.0	97.2	47.6	0.0	49.4	95.6	95.8	97.3	97.8	97.9	95.2	80.6
OF (%)	100.0	100.0	100.0	50.0	0.0	54.6	100.0	100.0	100.0	100.0	100.0	100.0	83.7
EUf (%)	0.0	0.0	0.0	50.0	100.0	45.4	0.0	0.0	0.0	0.0	0.0	2.1	16.5
PUf (%)	0.0	0.0	0.0	50.0	100.0	31.5	0.0	0.0	0.0	0.0	0.0	0.0	15.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	1.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PLANNED OUTAGE FOR FEEDER INSPECTION, BOILER CHEMICAL CLEANING, TURBINE INSPECTION, SLAR, OTHER WORK APR 15 - JUN 11.FORCED EXTENSION TO OUTAGE JUN 11 - 12.REACTOR STEPBACK & SUBSEQUENT SDS1 TRIP ON BOLIER LOW LEVEL, INITIATED BY POWER/LOAD UNBALANCE CIRCUIT AFTER SPURIOUS TRIP OF 345 KV SWITCHYARD BREAKER JUN 23-24

5. Historical Summary

Date of Construction Start: 01 Apr 1974 **Lifetime Generation:** 97627.8 GW(e).h
Date of First Criticality: 11 Sep 1982 **Cumulative Energy Availability Factor:** 82.7%
Date of Grid Connection: 04 Dec 1982 **Cumulative Load Factor:** 78.3%
Date of Commercial Operation: 01 Oct 1983 **Cumulative Unit Capability Factor:** 85.0%
Cumulative Energy Unavailability Factor: 17.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	937.7	645.0	65.9	65.9	65.9	65.9	65.8	65.8	1580	71.6
1984	3426.0	645.0	76.5	74.3	67.8	67.4	60.5	61.5	6742	76.8
1985	3189.4	645.0	72.7	73.6	71.1	69.1	56.4	59.3	6347	72.5
1986	3792.1	645.0	85.8	77.4	85.8	74.2	67.1	61.7	7488	85.5
1987	4658.5	640.0	86.3	79.5	85.5	76.8	83.1	66.7	7654	87.4
1988	5283.6	640.0	96.0	82.6	95.3	80.4	94.0	71.9	8372	95.3
1989	4870.3	640.0	90.0	83.8	89.5	81.8	86.9	74.3	7722	88.2
1990	4080.6	640.0	90.4	84.7	72.9	80.6	72.8	74.1	7748	88.4
1991	3925.5	640.0	71.4	83.1	69.9	79.3	70.0	73.6	6317	72.1
1992	4701.5	640.0	84.8	83.3	84.8	79.9	83.9	74.7	7431	84.8
1993	4827.1	685.0	92.9	84.3	92.4	81.2	80.4	75.3	7731	88.3
1994	5405.5	635.0	100.0	85.6	100.0	82.8	97.2	77.2	8634	98.6
1995	4519.0	635.0	86.2	85.7	86.2	83.1	81.2	77.5	7229	82.5
1996	5242.0	635.0	94.0	86.3	94.0	83.9	94.0	78.7	8289	94.4
1997	4217.5	635.0	86.8	86.3	86.8	84.1	75.8	78.5	6901	78.8
1998	3825.1	635.0	71.4	85.4	71.4	83.3	68.8	77.9	6258	71.4
1999	3793.3	635.0	88.3	85.6	69.6	82.5	68.2	77.3	6132	70.0
2000	4886.2	635.0	90.3	85.8	90.3	82.9	87.6	77.9	7879	89.7
2001	4711.2	635.0	88.3	86.0	88.3	83.2	84.7	78.3	7766	88.7
2002	4532.3	635.0	83.3	85.8	83.3	83.2	81.5	78.4	7366	84.1
2003	3567.1	635.0	65.2	84.8	65.2	82.3	64.1	77.7	5833	66.6
2004	4875.4	635.0	89.2	85.0	89.2	82.7	87.4	78.2	7905	90.0
2005	4486.2	635.0	83.7	85.0	83.5	82.7	80.6	78.3	7329	83.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		100			227	
B. Refuelling without a maintenance					23	
D. Inspection, maintenance or repair without refuelling	1331			817		
E. Testing of plant systems or components				0	5	
H. Nuclear regulatory requirements					23	
J. Grid failure or grid unavailability				1	1	3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						78
Z. Others					62	
Subtotal	1331	100	0	818	341	81
Total		1431			1240	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		42
12. Reactor I&C Systems		7
13. Reactor Auxiliary Systems		4
15. Reactor Cooling Systems		30
16. Steam generation systems		2
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		40
32. Feedwater and Main Steam System		8
41. Main Generator Systems		56
42. Electrical Power Supply Systems	50	3
XX. Miscellaneous Systems	50	9
Total	100	203

CA-4 PICKERING-1

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power
at the beginning of 2005: 515.0 MW(e)
Design Net Capacity: 508.0 MW(e)
Design Discharge Burnup: 9080 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 585.0 GW(e).h
Energy Availability Factor: 96.9%
Load Factor: 38.8%
Operating Factor: 42.0%
Energy Unavailability Factor: 3.1%
Total Off-line Time: 1699 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h									0.0	0.0	209.5	375.5	585.0
EAF (%)									100.0	100.0	89.0	98.4	96.9
UCF (%)									100.0	100.0	89.0	98.5	96.9
LF (%)									0.0	0.0	56.5	98.0	38.8
OF (%)									0.0	0.0	67.5	100.0	42.0
EUF (%)									0.0	0.0	11.0	1.6	3.1
PUF (%)									0.0	0.0	0.0	0.0	0.0
UCLF (%)									0.0	0.0	11.1	1.6	3.1
XUF (%)									0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT 1 WAS OFFICIALLY RETURNED TO COMMERCIAL SERVICE ON NOVEMBER 10, 2005.

5. Historical Summary

Date of Construction Start: 01 Jun 1966
Date of First Criticality: 25 Feb 1971
Date of Grid Connection: 04 Apr 1971
Date of Commercial Operation: 29 Jul 1971

Lifetime Generation: 76376.0 GW(e).h
Cumulative Energy Availability Factor: 64.0%
Cumulative Load Factor: 62.7%
Cumulative Unit Capability Factor: 66.5%
Cumulative Energy Unavailability Factor: 36.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	1921.7	540.0	100.0	100.0	81.5	81.5	81.5	81.5	3637	83.3
1972	2207.9	540.0	100.0	100.0	48.2	59.3	46.8	58.4	4237	48.5
1973	4222.4	514.0	95.3	98.2	94.0	72.9	92.3	71.7	8523	95.7
1974	3232.0	514.0	71.9	90.9	71.9	72.6	72.0	71.8	6979	79.9
1975	3592.8	512.0	80.2	88.5	80.2	74.3	80.3	73.6	7234	82.8
1976	4169.7	514.0	92.7	89.3	92.7	77.6	92.9	77.1	8136	93.1
1977	3852.8	514.0	86.1	88.8	85.8	78.8	85.8	78.4	7545	86.4
1978	4273.7	515.0	95.6	89.7	95.1	81.0	95.0	80.6	8359	95.7
1979	3781.4	515.0	85.3	89.2	85.3	81.5	82.9	80.9	7554	85.3
1980	3356.9	515.0	73.7	87.6	73.7	80.7	74.2	80.2	6640	75.6
1981	3947.7	515.0	88.0	87.6	88.0	81.4	87.5	80.9	7795	89.0
1982	3499.3	515.0	77.8	86.8	77.8	81.1	77.6	80.6	6915	78.9
1983	3070.8	515.0	68.1	85.3	68.1	80.0	68.1	79.6	6101	69.6
1984	0.0	515.0	0.0	79.0	0.0	74.1	0.0	73.7	0	0.0
1985	0.0	515.0	0.0	73.6	0.0	69.0	0.0	68.6	0	0.0
1986	0.0	515.0	0.0	68.8	0.0	64.6	0.0	64.2	0	0.0
1987	832.8	515.0	19.7	65.9	17.4	61.7	18.5	61.5	1981	22.6
1988	3986.5	515.0	89.2	67.2	89.1	63.3	88.1	63.0	8224	93.6
1989	3222.1	515.0	72.7	67.5	72.6	63.8	71.4	63.4	6943	79.3
1990	3041.7	515.0	70.9	67.7	70.6	64.2	67.4	63.6	7435	84.9
1991	3051.1	515.0	67.8	67.7	67.8	64.3	67.6	63.8	6525	74.5
1992	2920.0	515.0	65.4	67.6	65.4	64.4	64.5	63.9	5798	66.0
1993	3451.2	515.0	78.4	68.1	78.4	65.0	76.5	64.4	6908	78.9
1994	897.6	515.0	20.1	66.0	20.1	63.1	19.9	62.5	1835	20.9
1995	2013.2	515.0	45.7	65.2	44.8	62.4	44.6	61.8	4234	48.3
1996	3011.8	515.0	66.8	65.3	66.8	62.5	66.6	62.0	6202	70.6
1997	3950.8	515.0	89.7	66.2	89.7	63.5	88.5	63.0	8205	94.7
1998	Data not available - Long-term shutdown									
1999	"									
2000	"									
2001	"									
2002	"									
2003	"									
2004	"									
2005	585.0	515.0	96.9	66.5	96.9	64.0	38.8	62.7	1230	42.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					1505	
B. Refuelling without a maintenance					66	
D. Inspection, maintenance or repair without refuelling	563					
E. Testing of plant systems or components	6			6		
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					13	85
Subtotal	0	0	0	569	1590	86
Total	0			2245		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		989
12. Reactor I&C Systems		43
13. Reactor Auxiliary Systems		55
14. Safety Systems		71
15. Reactor Cooling Systems		108
16. Steam generation systems		67
31. Turbine and auxiliaries		24
32. Feedwater and Main Steam System		14
35. All other I&C Systems		2
41. Main Generator Systems		60
42. Electrical Power Supply Systems		37
XX. Miscellaneous Systems		1
Total	0	1471

CA-7 PICKERING-4

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 515.0 MW(e)
Design Net Capacity: 508.0 MW(e)
Design Discharge Burnup: 9080 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2996.5 GW(e).h
Energy Availability Factor: 66.4%
Load Factor: 66.4%
Operating Factor: 67.4%
Energy Unavailability Factor: 33.6%
Total Off-line Time: 2860 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	380.7	346.2	386.4	21.0	0.0	0.0	146.5	375.3	365.6	380.4	262.3	332.1	2996.5
EAF (%)	98.2	100.0	100.0	5.7	0.0	0.0	38.7	98.0	99.1	99.7	71.0	86.7	66.4
UCF (%)	98.2	100.0	100.0	5.7	0.0	0.0	38.7	98.4	99.5	99.7	71.1	87.3	66.5
LF (%)	99.4	100.0	100.9	5.7	0.0	0.0	38.2	98.0	98.6	99.3	70.7	86.7	66.4
OF (%)	100.0	100.0	100.0	5.7	0.0	0.0	41.8	100.0	100.0	100.0	71.1	89.8	67.4
EUF (%)	1.8	0.0	0.0	94.3	100.0	100.0	61.3	2.0	0.9	0.3	29.0	13.3	33.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	1.8	0.0	0.0	94.3	100.0	100.0	61.3	1.6	0.5	0.3	29.0	12.7	33.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.6	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1968
Date of First Criticality: 16 May 1973
Date of Grid Connection: 21 May 1973
Date of Commercial Operation: 17 Jun 1973

Lifetime Generation: 81026.9 GW(e).h
Cumulative Energy Availability Factor: 66.8%
Cumulative Load Factor: 66.7%
Cumulative Unit Capability Factor: 67.3%
Cumulative Energy Unavailability Factor: 33.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	2226.6	514.0	90.6	90.6	90.5	90.5	90.2	90.2	4402	91.7
1974	4221.0	514.0	94.0	92.8	94.0	92.8	94.0	92.7	8356	95.7
1975	1094.2	513.0	24.2	66.0	24.2	65.9	24.4	65.9	2201	25.2
1976	3089.0	514.0	68.4	66.6	68.1	66.5	68.8	66.7	6063	69.4
1977	4107.2	514.0	90.6	71.9	90.3	71.8	91.5	72.2	7975	91.3
1978	4033.9	515.0	89.9	75.2	89.7	75.0	89.7	75.3	7876	90.2
1979	4102.2	515.0	91.0	77.6	91.0	77.5	89.9	77.6	8059	91.0
1980	3700.5	515.0	81.8	78.2	81.8	78.0	81.8	78.2	7321	83.3
1981	4142.0	515.0	91.7	79.7	91.7	79.6	91.8	79.8	8078	92.2
1982	4137.9	515.0	91.8	81.0	91.8	80.9	91.7	81.0	8087	92.3
1983	4170.2	515.0	92.3	82.1	92.3	82.0	92.4	82.1	8183	93.4
1984	3733.3	515.0	82.7	82.1	82.7	82.1	82.5	82.1	7425	84.5
1985	3438.9	515.0	83.5	82.2	77.5	81.7	76.2	81.7	6824	77.9
1986	3687.4	515.0	83.2	82.3	83.2	81.8	81.7	81.7	7410	84.6
1987	3770.4	515.0	84.3	82.5	84.0	82.0	83.6	81.8	7495	85.6
1988	3166.2	515.0	70.1	81.7	70.1	81.2	70.0	81.0	6525	74.3
1989	2255.5	515.0	50.0	79.7	50.0	79.3	50.0	79.2	5468	62.4
1990	1070.8	515.0	23.7	76.5	23.7	76.1	23.7	76.0	2851	32.5
1991	2130.8	515.0	47.3	75.0	47.3	74.6	47.2	74.4	5185	59.2
1992	0.0	515.0	0.0	71.1	0.0	70.8	0.0	70.6	0	0.0
1993	3309.6	515.0	74.2	71.3	73.8	70.9	73.4	70.8	6711	76.6
1994	4009.6	515.0	89.7	72.1	89.5	71.8	88.9	71.6	7915	90.4
1995	2807.0	515.0	63.8	71.8	63.3	71.4	62.2	71.2	5684	64.9
1996	1134.9	515.0	25.1	69.8	25.1	69.4	25.1	69.2	2230	25.4
1997	0.0	515.0	0.0	66.9	0.0	66.6	0.0	66.4	0	0.0
1998	Data not available - Long-term shutdown									
1999	"									
2000	"									
2001	"									
2002	"									
2003	844.8	515.0	69.7	67.0	69.7	66.6	69.7	66.4	1880	79.9
2004	3266.8	515.0	75.6	67.3	72.1	66.8	72.2	66.7	6739	76.7
2005	2996.5	515.0	66.5	67.3	66.4	66.8	66.4	66.7	5900	67.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		2859			829	
B. Refuelling without a maintenance					4	
D. Inspection, maintenance or repair without refuelling	1164					
E. Testing of plant systems or components	67					
J. Grid failure or grid unavailability						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	15
Subtotal	0	2859	0	1231	841	21
Total		2859			2093	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		48
12. Reactor I&C Systems		37
13. Reactor Auxiliary Systems		190
14. Safety Systems		15
15. Reactor Cooling Systems	2859	403
31. Turbine and auxiliaries		29
32. Feedwater and Main Steam System		31
35. All other I&C Systems		3
41. Main Generator Systems		57
42. Electrical Power Supply Systems		2
XX. Miscellaneous Systems		1
Total	2859	816

CA-13 PICKERING-5

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR

Net Reference Unit Power
at the beginning of 2005: 516.0 MW(e)

Design Net Capacity: 516.0 MW(e)

Design Discharge Burnup: 8330 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2352.8 GW(e).h

Energy Availability Factor: 52.6%

Load Factor: 52.1%

Operating Factor: 55.0%

Energy Unavailability Factor: 47.4%

Total Off-line Time: 3942 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	378.8	113.9	0.0	0.0	0.0	0.0	281.1	339.1	360.7	377.0	169.2	332.9	2352.8
EAF (%)	100.0	33.2	0.0	0.0	0.0	0.0	73.3	88.7	98.5	99.5	46.4	87.9	52.6
UCF (%)	100.0	33.3	0.0	0.0	0.0	0.0	74.3	98.1	99.0	99.5	46.4	87.9	53.6
LF (%)	98.7	32.9	0.0	0.0	0.0	0.0	73.2	88.3	97.1	98.2	45.5	86.7	52.1
OF (%)	100.0	34.7	0.0	0.0	0.0	0.0	81.5	94.2	100.0	100.0	52.4	93.1	55.0
EUF (%)	0.0	66.8	100.0	100.0	100.0	100.0	26.7	11.3	1.5	0.5	53.6	12.1	47.4
PUF (%)	0.0	66.5	100.0	100.0	100.0	89.1	6.0	0.0	0.0	0.0	0.0	0.0	38.1
UCLF (%)	0.0	0.2	0.0	0.0	0.0	10.9	19.7	1.9	1.0	0.5	53.6	12.1	8.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.9	9.5	0.5	0.0	0.1	0.0	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1974 Lifetime Generation: 74927.7 GW(e).h

Date of First Criticality: 23 Oct 1982 Cumulative Energy Availability Factor: 72.9%

Date of Grid Connection: 19 Dec 1982 Cumulative Load Factor: 72.7%

Date of Commercial Operation: 10 May 1983 Cumulative Unit Capability Factor: 73.4%

 Cumulative Energy Unavailability Factor: 27.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	2719.9	516.0	90.3	90.3	90.3	90.3	89.6	89.6	5446	92.6
1984	3517.5	516.0	77.8	82.8	77.8	82.8	77.6	82.4	7035	80.1
1985	3366.5	516.0	83.1	82.9	77.7	80.9	74.5	79.5	6989	79.8
1986	4068.6	516.0	91.2	85.1	90.7	83.6	90.0	82.3	8057	92.0
1987	3600.1	516.0	80.3	84.1	79.6	82.7	79.6	81.8	7148	81.6
1988	4397.2	516.0	97.5	86.5	97.5	85.3	97.0	84.5	8683	98.9
1989	3400.8	516.0	75.7	84.9	75.4	83.8	75.2	83.1	6862	78.3
1990	3885.0	516.0	86.4	85.1	86.4	84.2	85.9	83.4	7821	89.3
1991	2887.1	516.0	64.6	82.7	64.4	81.9	63.9	81.2	5724	65.3
1992	1345.2	516.0	29.8	77.2	29.8	76.5	29.7	75.9	2621	29.8
1993	3841.8	516.0	85.6	78.0	85.4	77.3	85.0	76.7	8307	94.8
1994	3074.4	516.0	68.5	77.2	68.5	76.6	68.0	76.0	6196	70.7
1995	3372.9	516.0	75.0	77.0	74.8	76.4	74.6	75.9	7008	80.0
1996	3042.6	516.0	67.1	76.3	67.1	75.7	67.1	75.2	6429	73.2
1997	3924.9	516.0	86.8	77.0	86.8	76.5	86.8	76.0	7908	90.3
1998	3490.6	516.0	77.2	77.0	77.2	76.5	77.2	76.1	7296	83.3
1999	2511.6	516.0	55.6	75.7	55.6	75.3	55.6	74.9	5302	60.5
2000	2631.5	516.0	58.1	74.7	58.0	74.3	58.1	73.9	5457	62.1
2001	2980.2	516.0	66.6	74.3	65.9	73.9	65.9	73.5	5986	68.3
2002	2655.7	516.0	59.2	73.5	58.8	73.1	58.8	72.7	5565	63.5
2003	3295.0	516.0	71.1	73.4	69.1	72.9	72.9	72.7	6566	75.0
2004	4159.8	516.0	92.6	74.3	92.2	73.8	91.8	73.6	8264	94.1
2005	2352.8	516.0	53.6	73.4	52.6	72.9	52.1	72.7	4818	55.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		611			898	
B. Refuelling without a maintenance					79	
D. Inspection, maintenance or repair without refuelling	3288			767		
E. Testing of plant systems or components				0	2	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				39	11	19
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			42			
Z. Others					23	
Subtotal	3288	611	42	806	1013	19
Total		3941			1838	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		4
12. Reactor I&C Systems		93
13. Reactor Auxiliary Systems		77
14. Safety Systems		27
15. Reactor Cooling Systems		81
16. Steam generation systems		410
31. Turbine and auxiliaries	394	30
32. Feedwater and Main Steam System		10
33. Circulating Water System		4
35. All other I&C Systems		7
41. Main Generator Systems	217	103
42. Electrical Power Supply Systems		42
Total	611	888

CA-14 PICKERING-6

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR

Net Reference Unit Power
at the beginning of 2005: 516.0 MW(e)

Design Net Capacity: 516.0 MW(e)

Design Discharge Burnup: 8330 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2850.1 GW(e).h

Energy Availability Factor: 63.1%

Load Factor: 63.1%

Operating Factor: 63.9%

Energy Unavailability Factor: 36.9%

Total Off-line Time: 3164 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	382.8	346.4	383.1	372.7	383.7	368.4	350.7	262.4	0.0	0.0	0.0	0.0	2850.1
EAF (%)	100.0	100.0	99.7	100.0	100.0	99.9	91.5	68.4	0.0	0.1	0.0	0.0	63.1
UCF (%)	100.0	100.0	99.7	100.0	100.0	100.0	92.8	80.3	0.0	0.1	0.0	0.0	64.3
LF (%)	99.7	99.9	99.8	100.5	99.9	99.1	91.3	68.4	0.0	0.0	0.0	0.0	63.1
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	93.7	74.6	0.0	0.0	0.0	0.0	63.9
EUF (%)	0.0	0.0	0.3	0.0	0.0	0.1	8.5	31.6	100.0	99.9	100.0	100.0	36.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	100.0	99.9	100.0	72.8	31.3
UCLF (%)	0.0	0.0	0.3	0.0	0.0	0.0	7.2	17.1	0.0	0.0	0.0	27.2	4.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.3	11.8	0.0	0.0	0.0	0.0	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1975 Lifetime Generation: 76070.3 GW(e).h

Date of First Criticality: 15 Oct 1983 Cumulative Energy Availability Factor: 76.3%

Date of Grid Connection: 08 Nov 1983 Cumulative Load Factor: 76.2%

Date of Commercial Operation: 01 Feb 1984 Cumulative Unit Capability Factor: 77.0%

 Cumulative Energy Unavailability Factor: 23.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	3562.9	516.0	86.1	86.1	86.1	86.1	85.9	85.9	7048	87.7
1985	3289.1	516.0	79.5	82.6	73.1	79.3	72.8	79.0	6540	74.7
1986	3395.2	516.0	76.1	80.4	75.8	78.1	75.1	77.7	6763	77.2
1987	3949.9	516.0	88.5	82.5	86.6	80.3	87.4	80.2	7791	88.9
1988	4496.8	516.0	98.5	85.7	98.4	84.0	99.2	84.0	8775	99.9
1989	3950.2	516.0	87.9	86.1	87.6	84.6	87.4	84.6	7794	89.0
1990	3473.5	516.0	77.7	84.9	76.9	83.5	76.8	83.5	7017	80.1
1991	4469.7	516.0	99.2	86.7	99.0	85.4	98.9	85.4	8721	99.6
1992	4050.5	516.0	89.3	87.0	89.3	85.9	89.4	85.9	7936	90.3
1993	2689.2	516.0	60.4	84.3	59.9	83.3	59.5	83.2	5506	62.9
1994	4043.0	516.0	90.2	84.8	90.1	83.9	89.4	83.8	8036	91.7
1995	3493.3	516.0	77.5	84.2	77.2	83.3	77.3	83.2	6962	79.5
1996	2591.7	516.0	57.2	82.1	57.2	81.3	57.2	81.2	5707	65.0
1997	3386.2	516.0	74.9	81.6	74.9	80.8	74.9	80.8	6841	78.1
1998	3130.1	516.0	69.7	80.8	69.2	80.1	69.2	80.0	6384	72.9
1999	3353.7	516.0	74.4	80.4	74.2	79.7	74.2	79.6	6863	78.3
2000	2738.7	516.0	60.6	79.2	60.5	78.5	60.4	78.5	6449	73.4
2001	2618.1	516.0	57.7	78.0	57.7	77.4	57.9	77.3	5286	60.3
2002	3982.3	516.0	88.9	78.6	88.3	78.0	88.1	77.9	7985	91.2
2003	3267.4	516.0	74.3	78.4	72.5	77.7	72.3	77.6	6566	75.0
2004	2780.8	516.0	61.7	77.6	61.5	76.9	61.4	76.9	5597	63.7
2005	2850.1	516.0	64.3	77.0	63.1	76.3	63.1	76.2	5596	63.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		359			646	
B. Refuelling without a maintenance					57	
D. Inspection, maintenance or repair without refuelling	2736			856		
E. Testing of plant systems or components				0	4	
J. Grid failure or grid unavailability						27
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					3	26
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			69			
Subtotal	2736	359	69	856	710	53
Total		3164			1619	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		70
12. Reactor I&C Systems		54
13. Reactor Auxiliary Systems	50	44
14. Safety Systems	156	53
15. Reactor Cooling Systems	59	54
16. Steam generation systems	94	111
21. Fuel Handling and Storage Facilities		2
31. Turbine and auxiliaries		61
32. Feedwater and Main Steam System		52
33. Circulating Water System		3
35. All other I&C Systems		4
41. Main Generator Systems		91
42. Electrical Power Supply Systems		11
XX. Miscellaneous Systems		18
Total	359	628

CA-15 PICKERING-7

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR

Net Reference Unit Power at the beginning of 2005: 516.0 MW(e)

Design Net Capacity: 516.0 MW(e)

Design Discharge Burnup: 8330 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4390.8 GW(e).h

Energy Availability Factor: 97.4%

Load Factor: 97.1%

Operating Factor: 98.8%

Energy Unavailability Factor: 2.6%

Total Off-line Time: 102 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	301.1	349.3	386.6	369.3	377.8	364.9	376.3	369.6	364.5	377.9	370.0	383.4	4390.8
EAF (%)	78.9	100.0	100.0	99.9	99.2	98.3	99.2	96.3	99.0	99.4	99.7	99.9	97.4
UCF (%)	78.9	100.0	100.0	99.9	99.2	98.8	99.5	98.7	99.9	99.4	99.7	99.9	97.8
LF (%)	78.4	100.7	100.7	99.5	98.4	98.2	98.0	96.3	98.1	98.3	99.6	99.9	97.1
OF (%)	86.3	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	98.8
EUF (%)	21.1	0.0	0.0	0.1	0.8	1.7	0.8	3.7	1.0	0.6	0.3	0.1	2.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	21.1	0.0	0.0	0.1	0.8	1.2	0.5	1.4	0.1	0.6	0.3	0.1	2.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.5	0.3	2.4	0.9	0.0	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Mar 1976 Lifetime Generation: 75770.1 GW(e).h

Date of First Criticality: 22 Oct 1984 Cumulative Energy Availability Factor: 79.7%

Date of Grid Connection: 17 Nov 1984 Cumulative Load Factor: 79.4%

Date of Commercial Operation: 01 Jan 1985 Cumulative Unit Capability Factor: 80.4%

 Cumulative Energy Unavailability Factor: 20.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	4094.0	516.0	99.0	99.0	92.6	92.6	90.6	90.6	8277	94.5
1986	3373.3	516.0	75.5	87.2	75.2	83.9	74.6	82.6	7002	79.9
1987	4339.9	516.0	97.4	90.6	96.0	87.9	96.0	87.1	8642	98.7
1988	4340.4	516.0	95.9	92.0	95.4	89.8	95.8	89.2	8519	97.0
1989	3408.7	516.0	77.1	89.0	75.4	86.9	75.4	86.5	6939	79.2
1990	3500.8	516.0	78.4	87.2	77.7	85.4	77.4	85.0	7420	84.7
1991	4258.8	516.0	94.9	88.3	94.5	86.7	94.2	86.3	8436	96.3
1992	3727.4	516.0	82.4	87.6	82.4	86.2	82.2	85.8	7349	83.7
1993	4415.9	516.0	99.9	89.0	99.0	87.6	97.7	87.1	8760	100.0
1994	3709.9	516.0	83.4	88.4	83.4	87.2	82.1	86.6	7386	84.3
1995	4056.8	516.0	90.4	88.6	90.0	87.4	89.7	86.9	8140	92.9
1996	2050.7	516.0	45.4	85.0	45.4	83.9	45.2	83.4	4416	50.3
1997	2936.2	516.0	65.0	83.4	65.0	82.5	65.0	82.0	6208	70.9
1998	3084.7	516.0	68.9	82.4	68.2	81.4	68.2	81.0	6495	74.1
1999	4433.8	516.0	98.8	83.5	98.0	82.5	98.1	82.2	8751	99.9
2000	2099.0	516.0	46.4	81.2	46.3	80.3	46.3	79.9	4445	50.6
2001	4020.8	516.0	89.0	81.6	88.7	80.8	89.0	80.4	7968	91.0
2002	4246.9	516.0	94.4	82.3	93.9	81.5	94.0	81.2	8538	97.5
2003	1790.7	516.0	39.8	80.1	39.7	79.3	39.6	79.0	3811	43.5
2004	3116.1	516.0	68.9	79.5	68.9	78.8	68.7	78.5	6127	69.8
2005	4390.8	516.0	97.8	80.4	97.4	79.7	97.1	79.4	8658	98.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		102			357	
B. Refuelling without a maintenance					192	
D. Inspection, maintenance or repair without refuelling				804		
E. Testing of plant systems or components				1	14	
J. Grid failure or grid unavailability						4
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					9	21
Z. Others					43	
Subtotal	0	102	0	805	615	25
Total		102			1445	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		26
13. Reactor Auxiliary Systems	39	19
14. Safety Systems		45
15. Reactor Cooling Systems		54
16. Steam generation systems		27
31. Turbine and auxiliaries		30
32. Feedwater and Main Steam System		13
33. Circulating Water System		15
41. Main Generator Systems	63	106
42. Electrical Power Supply Systems		10
Total	102	346

CA-16 PICKERING-8

Operator: OPG (ONTARIO POWER GENERATION)

Contractor: OH/AECL (ONTARIO HYDRO / ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR

Net Reference Unit Power at the beginning of 2005: 516.0 MW(e)

Design Net Capacity: 516.0 MW(e)

Design Discharge Burnup: 8330 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4195.2 GW(e).h

Energy Availability Factor: 93.4%

Load Factor: 92.8%

Operating Factor: 96.2%

Energy Unavailability Factor: 6.6%

Total Off-line Time: 329 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	376.0	342.9	379.9	286.6	379.1	359.1	371.6	244.3	357.7	369.4	354.8	373.8	4195.2
EAF (%)	98.9	100.0	99.9	77.9	99.6	97.6	97.6	63.7	96.8	96.5	95.5	97.4	93.4
UCF (%)	98.9	100.0	99.9	77.9	99.6	98.0	98.7	74.8	97.7	96.5	96.1	97.4	94.6
LF (%)	97.9	98.9	99.0	77.2	98.8	96.7	96.8	63.6	96.3	96.1	95.5	97.4	92.8
OF (%)	100.0	100.0	100.0	81.8	100.0	100.0	100.0	73.5	100.0	99.9	100.0	100.0	96.2
EUF (%)	1.1	0.0	0.1	22.1	0.4	2.4	2.4	36.3	3.2	3.5	4.5	2.6	6.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	1.1	0.0	0.1	22.1	0.4	2.0	1.3	25.2	2.3	3.5	3.9	2.6	5.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.4	1.1	11.1	1.0	0.0	0.6	0.0	1.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1976 Lifetime Generation: 68373.3 GW(e).h

Date of First Criticality: 17 Dec 1985 Cumulative Energy Availability Factor: 76.1%

Date of Grid Connection: 21 Jan 1986 Cumulative Load Factor: 75.9%

Date of Commercial Operation: 28 Feb 1986 Cumulative Unit Capability Factor: 76.7%

 Cumulative Energy Unavailability Factor: 23.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	3771.0	516.0	92.2	92.2	91.9	91.9	91.2	91.2	7846	97.9
1987	3759.4	516.0	84.7	88.3	83.3	87.4	83.2	87.0	7585	86.6
1988	3710.4	516.0	82.5	86.3	82.3	85.6	81.9	85.2	7296	83.1
1989	4295.2	516.0	96.6	88.9	95.4	88.1	95.0	87.7	8569	97.8
1990	3014.7	516.0	66.7	84.4	66.6	83.7	66.7	83.5	6743	77.0
1991	4485.0	516.0	99.5	87.0	98.9	86.3	99.2	86.1	8759	100.0
1992	4212.0	516.0	93.0	87.8	92.9	87.3	92.9	87.1	8280	94.3
1993	3670.5	516.0	82.1	87.1	81.7	86.6	81.2	86.4	7233	82.6
1994	4341.9	516.0	96.8	88.2	96.8	87.7	96.1	87.4	8579	97.9
1995	4012.1	516.0	89.4	88.3	89.0	87.9	88.8	87.6	8066	92.1
1996	1300.3	516.0	28.7	82.9	28.7	82.4	28.7	82.2	2597	29.6
1997	360.8	516.0	8.0	76.6	8.0	76.2	8.0	75.9	995	11.3
1998	3493.6	516.0	78.0	76.7	77.3	76.3	77.3	76.0	7009	80.0
1999	3509.1	516.0	78.4	76.8	77.6	76.4	77.6	76.2	7077	80.8
2000	2711.2	516.0	60.8	75.7	59.9	75.2	59.8	75.1	5508	62.7
2001	3502.2	516.0	78.2	75.9	77.5	75.4	77.5	75.2	6999	79.9
2002	3605.4	516.0	81.1	76.2	80.0	75.7	79.8	75.5	7244	82.7
2003	3921.3	516.0	89.7	76.9	86.9	76.3	86.8	76.1	8026	91.6
2004	2489.5	516.0	55.4	75.8	55.1	75.2	54.9	75.0	5182	59.0
2005	4195.2	516.0	94.6	76.7	93.4	76.1	92.8	75.9	8431	96.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		279			383	
B. Refuelling without a maintenance				267	260	
D. Inspection, maintenance or repair without refuelling				885		
E. Testing of plant systems or components				1		
J. Grid failure or grid unavailability						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					4	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			49			
Subtotal	0	279	49	1153	647	6
Total		328			1806	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	77	29
13. Reactor Auxiliary Systems		4
14. Safety Systems		24
15. Reactor Cooling Systems	132	53
16. Steam generation systems		27
21. Fuel Handling and Storage Facilities		19
31. Turbine and auxiliaries		43
32. Feedwater and Main Steam System		42
33. Circulating Water System		12
35. All other I&C Systems		2
41. Main Generator Systems	70	13
42. Electrical Power Supply Systems		30
Total	279	298

CA-17 POINT LEPREAU

Operator: NBEPC (NEW BRUNSWICK ELECTRIC POWER COMMISSION)

Contractor: AECL (ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
 Net Reference Unit Power
 at the beginning of 2005: 635.0 MW(e)
 Design Net Capacity: 630.0 MW(e)
 Design Discharge Burnup: 8000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4372.6 GW(e).h
 Energy Availability Factor: 86.8%
 Load Factor: 78.6%
 Operating Factor: 87.1%
 Energy Unavailability Factor: 13.2%
 Total Off-line Time: 1128 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	438.5	395.5	424.2	167.1	44.4	417.8	429.9	385.2	411.7	425.3	410.0	422.9	4372.6
EAF (%)	100.0	100.0	97.2	42.3	14.4	99.8	99.8	90.8	99.9	99.7	99.3	99.4	86.8
UCF (%)	100.0	100.0	97.2	42.3	14.4	99.8	99.8	90.8	99.9	99.7	99.4	99.4	86.8
LF (%)	92.8	92.7	89.8	36.6	9.4	91.4	91.0	81.5	90.0	90.0	89.7	89.5	78.6
OF (%)	100.0	100.0	97.2	42.6	14.8	100.0	100.0	91.9	100.0	100.0	100.0	100.0	87.1
EUF (%)	0.0	0.0	2.8	57.7	85.6	0.2	0.2	9.2	0.1	0.3	0.7	0.6	13.2
PUF (%)	0.0	0.0	0.0	49.3	29.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
UCLF (%)	0.0	0.0	2.8	8.4	56.4	0.2	0.2	9.2	0.1	0.3	0.7	0.7	6.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE PLANNED OUTAGE IN APRIL/MAY WAS EXTENDED DUE ADDITIONAL FEEDER CRACKS. ORIGINALLY PLANNED FOR 6 FEEDER REPLACEMENTS WHICH ENDED UP BEING 13.

5. Historical Summary

Date of Construction Start: 01 May 1975 Lifetime Generation: 106053.9 GW(e).h
 Date of First Criticality: 25 Jul 1982 Cumulative Energy Availability Factor: 82.2%
 Date of Grid Connection: 11 Sep 1982 Cumulative Load Factor: 82.3%
 Date of Commercial Operation: 01 Feb 1983 Cumulative Unit Capability Factor: 83.5%
 Cumulative Energy Unavailability Factor: 17.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	4404.5	640.0	86.0	86.0	86.0	86.0	85.9	85.9	7164	89.4
1984	5000.9	635.0	89.0	87.6	88.9	87.5	89.7	87.8	7927	90.2
1985	5421.9	635.0	96.9	90.8	96.9	90.7	97.5	91.1	8547	97.6
1986	5223.1	635.0	94.0	91.6	93.4	91.4	93.9	91.8	8257	94.3
1987	5107.7	635.0	91.2	91.5	91.2	91.4	91.8	91.8	8110	92.6
1988	5338.3	635.0	94.9	92.1	94.9	92.0	95.7	92.5	8383	95.4
1989	5266.7	635.0	93.8	92.3	93.6	92.2	94.7	92.8	8271	94.4
1990	5333.7	635.0	95.0	92.7	94.7	92.5	95.9	93.2	8384	95.7
1991	5437.2	635.0	96.7	93.1	96.7	93.0	97.7	93.7	8500	97.0
1992	4829.8	635.0	85.8	92.4	85.8	92.3	86.6	93.0	7748	88.2
1993	5320.0	635.0	95.1	92.6	95.1	92.5	95.6	93.2	8391	95.8
1994	5230.1	635.0	93.5	92.7	93.5	92.6	94.0	93.3	8270	94.4
1995	1611.4	635.0	29.0	87.8	29.0	87.7	29.0	88.3	2615	29.9
1996	4587.8	635.0	81.4	87.3	81.4	87.2	82.3	87.9	7363	83.8
1997	3455.6	635.0	62.2	85.6	61.6	85.5	62.1	86.2	5564	63.5
1998	3782.4	635.0	67.1	84.5	66.0	84.3	68.0	85.0	6111	69.8
1999	4082.7	635.0	75.5	83.9	72.0	83.6	73.4	84.3	6797	77.6
2000	3966.9	635.0	77.6	83.6	70.5	82.8	71.1	83.6	6792	77.3
2001	4451.3	635.0	84.6	83.6	79.1	82.6	80.0	83.4	7418	84.7
2002	3760.6	635.0	71.6	83.0	67.6	81.9	67.6	82.6	6107	69.7
2003	4739.5	635.0	89.8	83.4	84.4	82.0	85.2	82.7	7869	89.8
2004	4299.7	635.0	83.3	83.4	82.6	82.0	77.1	82.5	7310	83.2
2005	4372.6	635.0	86.8	83.5	86.8	82.2	78.6	82.3	7632	87.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		563			244	1
B. Refuelling without a maintenance					88	
C. Inspection, maintenance or repair combined with refuelling	564					
D. Inspection, maintenance or repair without refuelling				494		
E. Testing of plant systems or components				0	2	
G. Major back-fitting, refurbishment or upgrading activities without refuelling				38		
H. Nuclear regulatory requirements					2	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						2
L. Human factor related					2	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						2
Z. Others					39	
Subtotal	564	563	0	532	377	6
Total		1127			915	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	432	
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		3
14. Safety Systems	60	24
15. Reactor Cooling Systems		79
16. Steam generation systems		67
31. Turbine and auxiliaries		14
32. Feedwater and Main Steam System		24
41. Main Generator Systems		9
42. Electrical Power Supply Systems	71	4
Total	563	236

CN-2 GUANGDONG-1

Operator: GNPJVC (GUANDONG NUCLEAR POWER JOINT VENTURE COMPANY LIMITED(GNPJVC))

Contractor: GEC (GENERAL ELECTRIC COMPANY (UK))

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 944.0 MW(e)
Design Net Capacity: 930.0 MW(e)
Design Discharge Burnup: 35000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8260.5 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 99.9%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	706.0	639.6	707.6	684.8	702.8	677.5	698.2	699.6	673.0	696.5	671.4	703.4	8260.5
EAF (%)	100.0	100.0	99.9	100.0	100.0	100.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	99.9	100.0	100.0	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	100.5	100.8	100.8	100.9	100.1	99.7	99.4	99.6	99.0	99.0	98.8	100.1	99.9
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT WAS BASICALLY OPERATED IN BASE-LOAD MODE.THERE WAS NO SCRAM AND NO SHUT-DOWN IN 2005.THERE WAS NO OUTAGE IN THE YEAR.

5. Historical Summary

Date of Construction Start: 07 Aug 1987 **Lifetime Generation:** 78974.1 GW(e).h
Date of First Criticality: 28 Jul 1993 **Cumulative Energy Availability Factor:** 80.1%
Date of Grid Connection: 31 Aug 1993 **Cumulative Load Factor:** 80.4%
Date of Commercial Operation: 01 Feb 1994 **Cumulative Unit Capability Factor:** 85.9%
Cumulative Energy Unavailability Factor: 19.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1994	5808.2	944.0	77.4	77.4	76.3	76.3	76.8	76.8	6385	79.7
1995	3723.6	944.0	84.6	81.2	46.2	60.6	45.0	60.2	4088	46.7
1996	6252.7	944.0	76.8	79.7	76.0	65.9	75.4	65.4	6847	77.9
1997	6491.2	944.0	82.1	80.3	74.6	68.1	78.5	68.8	7272	83.0
1998	6040.5	944.0	79.6	80.1	72.0	68.9	73.0	69.6	7344	83.8
1999	6723.7	944.0	87.7	81.4	82.7	71.2	81.3	71.6	7680	87.7
2000	Data not provided									
2001	7009.3	944.0	87.5	82.3	84.8	73.2	84.8	73.5	7619	87.0
2002	7387.2	944.0	89.6	83.2	89.5	75.3	89.3	75.5	7924	90.5
2003	7400.8	944.0	90.9	84.1	90.4	77.0	89.5	77.1	7958	90.8
2004	7540.9	944.0	88.5	84.5	88.2	78.1	90.9	78.5	7789	88.7
2005	8260.5	944.0	100.0	85.9	100.0	80.1	99.9	80.4	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					149	
C. Inspection, maintenance or repair combined with refuelling	871					
D. Inspection, maintenance or repair without refuelling	24					
E. Testing of plant systems or components					0	
J. Grid failure or grid unavailability						22
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						256
Subtotal	0	0	0	895	149	278
Total	0			1322		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		8
13. Reactor Auxiliary Systems		7
15. Reactor Cooling Systems		1
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		26
41. Main Generator Systems		80
42. Electrical Power Supply Systems		24
Total	0	147

CN-3 GUANGDONG-2

Operator: GNPJVC (GUANDONG NUCLEAR POWER JOINT VENTURE COMPANY LIMITED(GNPJVC))

Contractor: GEC (GENERAL ELECTRIC COMPANY (UK))

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 944.0 MW(e)
Design Net Capacity: 930.0 MW(e)
Design Discharge Burnup: 35000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6587.0 GW(e).h
Energy Availability Factor: 79.6%
Load Factor: 79.7%
Operating Factor: 80.8%
Energy Unavailability Factor: 20.4%
Total Off-line Time: 1685 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	704.6	636.6	706.0	681.8	699.6	675.9	698.6	699.2	561.4	0.0	0.0	523.5	6587.0
EAF (%)	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	82.9	0.1	0.0	73.5	79.6
UCF (%)	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	82.9	0.1	0.0	73.5	79.6
LF (%)	100.3	100.3	100.5	100.4	99.6	99.4	99.5	99.5	82.6	0.0	0.0	74.5	79.7
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	84.0	0.0	0.0	85.8	80.8
EUF (%)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	17.1	99.9	100.0	26.5	20.4
PUF (%)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	16.9	99.9	100.0	26.5	20.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT WAS BASICALLY OPERATED IN BASE-LOAD MODE.THERE WAS NO SCRAM AND NO SHUT-DOWN IN 2005.
 THE UNTI WAS BEARING ITS 11TH REFUELING OUTAGE FROM 2005/09/26 TO 2005/12/05.

5. Historical Summary

Date of Construction Start: 07 Apr 1988 **Lifetime Generation:** 76049.1 GW(e).h
Date of First Criticality: 21 Jan 1994 **Cumulative Energy Availability Factor:** 78.5%
Date of Grid Connection: 07 Feb 1994 **Cumulative Load Factor:** 78.8%
Date of Commercial Operation: 07 May 1994 **Cumulative Unit Capability Factor:** 81.2%
Cumulative Energy Unavailability Factor: 21.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1994	5014.2	944.0	99.4	99.4	92.3	92.3	90.3	90.3	5761	98.0
1995	6343.3	944.0	81.1	88.4	77.5	83.4	76.7	82.2	7146	81.6
1996	5276.9	944.0	67.4	80.6	63.9	76.1	63.6	75.2	5740	65.3
1997	5914.8	944.0	70.1	77.7	67.4	73.8	71.5	74.2	6194	70.7
1998	6259.1	944.0	82.9	78.8	74.7	74.0	75.7	74.5	7302	83.4
1999	6789.5	944.0	86.2	80.1	83.3	75.6	82.1	75.9	7594	86.7
2000	Data not provided									
2001	7355.5	944.0	91.1	81.8	89.5	77.7	88.9	77.8	7986	91.2
2002	6728.9	944.0	82.2	81.8	81.6	78.2	81.4	78.3	7224	82.5
2003	6983.1	944.0	84.6	82.1	84.5	78.9	84.4	79.0	7503	85.7
2004	6358.9	944.0	74.4	81.3	74.2	78.4	76.7	78.8	6580	74.9
2005	6587.0	944.0	79.6	81.2	79.6	78.5	79.7	78.8	7075	80.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					177	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	1683			882		
D. Inspection, maintenance or repair without refuelling				18		
J. Grid failure or grid unavailability						27
L. Human factor related					29	
Subtotal	1683	0	0	900	211	27
Total	1683			1138		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities		90
31. Turbine and auxiliaries		5
32. Feedwater and Main Steam System		3
35. All other I&C Systems		3
41. Main Generator Systems		73
42. Electrical Power Supply Systems		0
Total	0	175

CN-6 LINGAO 1

Operator: LANPC (LINGAO NUCLEAR POWER COMPANY LTD.)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 938.0 MW(e)
Design Net Capacity: 938.0 MW(e)
Design Discharge Burnup: —
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6906.4 GW(e).h
Energy Availability Factor: 84.3%
Load Factor: 84.1%
Operating Factor: 84.7%
Energy Unavailability Factor: 15.7%
Total Off-line Time: 1336 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	661.7	13.1	24.9	670.3	702.2	669.5	699.1	697.7	674.3	698.6	680.1	714.8	6906.4
EAF (%)	96.4	2.1	8.3	100.0	99.9	98.7	100.0	100.0	100.0	100.0	99.9	100.0	84.3
UCF (%)	96.4	2.1	8.3	100.0	99.9	98.7	100.0	100.0	100.0	100.0	99.9	100.0	84.3
LF (%)	94.8	2.1	3.6	99.4	100.6	99.1	100.2	100.0	99.8	100.0	100.7	102.4	84.1
OF (%)	97.3	0.4	13.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	84.7
EUF (%)	3.6	97.9	91.7	0.0	0.1	1.3	0.0	0.0	0.0	0.0	0.1	0.0	15.7
PUF (%)	0.4	97.9	91.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3
UCLF (%)	3.2	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.1	0.0	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

1.CN6 WAS BASICALLY OPERATED IN BASE-LOAD MODE.2.CN6 WAS SHUT DOWN BY MANUAL AFTER LOAD REJECTION TO 90MWE.H DUE TO FAULT OF THE TRANSMISSION LINE ON JAN. 25, WHICH CAUSED 22231MWE.H FORCED ENERGY LOSSES.3.CN6 WAS BEARING ITS THIRD REFUELING OUTAGE FROM FEB.1 TO MAR.27, LASTING 54.8 DAYS AND TOTAL ENERY LOSSES IS ABOUT 1302444MWE.H.4.THERE WAS ONE SCRAM ON MAR.26 WITH THE ACTUATION OF THE RPN INTERMEDIATE MEASUREMENT FLUX HIGH PROTECTION BEFORE IT WAS CONNECTED TO THE GRID, WHICH DID NOT CAUSE ENERGY LOSSES.

5. Historical Summary

Date of Construction Start: 15 May 1997 **Lifetime Generation:** 25196.7 GW(e).h
Date of First Criticality: 04 Feb 2002 **Cumulative Energy Availability Factor:** 86.5%
Date of Grid Connection: 26 Feb 2002 **Cumulative Load Factor:** 83.5%
Date of Commercial Operation: 28 May 2002 **Cumulative Unit Capability Factor:** 87.1%
Cumulative Energy Unavailability Factor: 13.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002	4583.8	938.0	95.7	95.7	95.7	95.7	83.1	83.1	5184	88.1
2003	6375.0	938.0	82.3	87.7	80.4	86.5	77.6	79.8	7215	82.4
2004	7331.4	938.0	89.0	88.2	88.7	87.3	89.0	83.2	7884	89.8
2005	6906.4	938.0	84.3	87.1	84.3	86.5	84.1	83.5	7424	84.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2003 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	1315	23		649	165	
Subtotal	1315	23	0	649	165	0
Total	1338			814		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2003 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	0	8
42. Electrical Power Supply Systems	23	157
Total	23	165

CN-7 LINGAO 2

Operator: LANPC (LINGAO NUCLEAR POWER COMPANY LTD.)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 938.0 MW(e)
Design Net Capacity: 938.0 MW(e)
Design Discharge Burnup: —
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7530.9 GW(e).h
Energy Availability Factor: 91.3%
Load Factor: 91.7%
Operating Factor: 92.2%
Energy Unavailability Factor: 8.7%
Total Off-line Time: 685 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	370.7	611.2	695.7	684.8	705.6	681.6	703.0	642.0	677.4	702.3	682.5	374.1	7530.9
EAF (%)	59.2	96.0	100.0	100.0	100.0	100.0	100.0	92.5	99.9	100.0	100.0	49.0	91.3
UCF (%)	59.2	100.0	100.0	100.0	100.0	100.0	100.0	92.5	99.9	100.0	100.0	49.0	91.6
LF (%)	53.1	97.0	99.7	101.5	101.1	100.9	100.7	92.0	100.3	100.5	101.1	53.6	91.7
OF (%)	62.0	100.0	100.0	100.1	100.0	100.0	100.0	93.8	100.0	99.9	100.0	52.2	92.2
EUF (%)	40.8	4.0	0.0	0.0	0.0	0.0	0.0	7.5	0.1	0.0	0.0	51.0	8.7
PUF (%)	40.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.0	7.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.1	0.0	0.0	0.0	0.6
XUF (%)	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

1.CN7 WAS BASICALLY OPERATED IN BASE-LOAD MODE.2.CN7 WAS BEARING ITS SECOND REFUELING OUTAGE FROM DEC.10 IN 2004 TO JAN.12 IN 2005, LASTING 33.8 DAYS AND THE ENERY LOSSES IS ABOUT 284671MWE.H IN 2005.3.BY THE REQUEST OF GRID SYSTEM, CN7 WAS DELOADED TO 800 MWE.H AROUND 4.4 DAYS FROM FEB.7 TO FEB.12 IN 2005.4.THERE WAS ONE SCRAM ON AUG.21 DUE TO NO.3 SG HI-HI LEVEL SIGNAL, WHICH CAUSED 52168 MWE.H FORCED ENERGY LOSSES.5.CN7 WAS BEARING ITS THIRD REFUELING OUTAGE FROM DEC.17 IN 2005 TO JAN.21 IN 2006, LASTING 33.8 DAYS AND THE ENERY LOSSES IS ABOUT 354962 MWE.H IN 2005.

5. Historical Summary

Date of Construction Start: 28 Nov 1997
Date of First Criticality: 27 Aug 2002
Date of Grid Connection: 15 Dec 2002
Date of Commercial Operation: 08 Jan 2003

Lifetime Generation: 21135.2 GW(e).h
Cumulative Energy Availability Factor: 87.0%
Cumulative Load Factor: 85.7%
Cumulative Unit Capability Factor: 87.3%
Cumulative Energy Unavailability Factor: 13.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2003	6934.9	938.0	90.6	90.6	89.9	89.9	84.4	84.4	7494	85.5
2004	6669.4	938.0	79.9	85.2	79.8	84.9	80.9	82.7	7109	80.9
2005	7530.9	938.0	91.6	87.3	91.3	87.0	91.7	85.7	8075	92.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2003 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	646	46		792	21	
Subtotal	646	46	0	792	21	0
Total	692			813		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2003 to 2005 Average Hours Lost Per Year
32. Feedwater and Main Steam System 41. Main Generator Systems	46	21
Total	46	21

CN-1 QINSHAN 1

Operator: QNPC (QINSHAN NUCLEAR POWER COMPANY)

Contractor: CNNC (CHINA NATIONAL NUCLEAR CORPORATION)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 288.0 MW(e)
Design Net Capacity: 288.0 MW(e)
Design Discharge Burnup: 24000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2194.6 GW(e).h
Energy Availability Factor: 86.8%
Load Factor: 87.0%
Operating Factor: 87.8%
Energy Unavailability Factor: 13.2%
Total Off-line Time: 1067 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	220.6	102.8	0.0	194.1	217.3	209.3	199.8	206.6	205.3	212.1	209.9	216.7	2194.6
EAF (%)	99.9	59.7	0.0	89.0	99.9	99.8	95.3	97.8	99.3	99.9	100.0	100.0	86.8
UCF (%)	99.9	59.7	0.0	89.1	100.0	99.8	95.3	99.4	99.8	99.9	100.0	100.0	87.0
LF (%)	102.9	53.1	0.0	93.7	101.4	100.9	93.3	96.4	99.0	98.8	101.2	101.1	87.0
OF (%)	100.0	59.8	0.0	96.5	100.0	100.0	96.4	100.0	100.0	99.9	100.0	100.0	87.8
EUF (%)	0.1	40.3	100.0	11.0	0.1	0.2	4.7	2.2	0.7	0.1	0.0	0.0	13.2
PUF (%)	0.1	40.3	100.0	11.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	12.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.6	0.2	0.0	0.0	0.0	0.5
XUF (%)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.7	0.6	0.0	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

POWER OPERATION HOUR FOR THIS YEAR IS 7692HRS WITH 2 TIMES UNPLANNED SCRAM WHICH HAPPENED ON JULY 7TH AND JULY 18TH .FROM FEB. 17TH TO APR. 2ND, THE UNIT EXPERIENCED THE 8TH REFUELING OUTAGE.

5. Historical Summary

Date of Construction Start: 20 Mar 1985
Date of First Criticality: 31 Oct 1991
Date of Grid Connection: 15 Dec 1991
Date of Commercial Operation: 01 Apr 1994

Lifetime Generation: 24523.0 GW(e).h
Cumulative Energy Availability Factor: 74.1%
Cumulative Load Factor: 75.5%
Cumulative Unit Capability Factor: 76.2%
Cumulative Energy Unavailability Factor: 25.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1994	1153.9	279.0	67.5	67.5	62.0	62.0	62.7	62.7	4624	70.1
1995	2063.9	300.0	86.8	78.8	82.3	74.0	78.5	72.0	7886	90.0
1996	2073.7	279.0	81.2	79.7	81.2	76.5	84.6	76.5	7479	85.1
1997	2011.7	300.0	81.8	80.2	76.1	76.4	76.5	76.5	7185	82.0
1998	1149.5	279.0	48.8	73.8	42.6	69.5	47.0	70.5	4331	49.4
1999	680.9	279.0	27.8	66.0	27.8	62.4	27.9	63.3	2519	28.8
2000	2035.5	300.0	77.6	67.8	77.6	64.8	77.2	65.4	6840	77.9
2001	2319.4	279.0	93.5	71.0	92.8	68.3	94.9	69.1	8370	95.5
2002	1783.2	279.0	69.2	70.8	66.3	68.1	73.0	69.5	5989	68.4
2003	2256.6	288.0	88.5	72.6	88.4	70.2	89.4	71.6	7798	89.0
2004	2565.2	288.0	99.8	75.2	99.1	72.9	101.4	74.4	8784	100.0
2005	2194.6	288.0	87.0	76.2	86.8	74.1	87.0	75.5	7693	87.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1993 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		38			47	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	1131			1076		
D. Inspection, maintenance or repair without refuelling				95		
E. Testing of plant systems or components					3	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					477	3
Subtotal	1131	38	0	1171	535	3
Total		1169			1709	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1993 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	20	3
13. Reactor Auxiliary Systems		7
15. Reactor Cooling Systems		1
31. Turbine and auxiliaries	18	2
32. Feedwater and Main Steam System		18
33. Circulating Water System		6
35. All other I&C Systems		2
41. Main Generator Systems		2
XX. Miscellaneous Systems		3
Total	38	44

CN-4 QINSHAN 2-1

Operator: NPQJVC (NUCLEAR POWER PLANT QINSHAN JOINT VENTURE COMPANY LTD.)

Contractor: CNNC (CHINA NATIONAL NUCLEAR CORPORATION)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 610.0 MW(e)
Design Net Capacity: 610.0 MW(e)
Design Discharge Burnup: —
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4944.8 GW(e).h
Energy Availability Factor: 90.6%
Load Factor: 92.5%
Operating Factor: 91.1%
Energy Unavailability Factor: 9.4%
Total Off-line Time: 778 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	472.0	421.8	409.1	7.4	456.8	445.2	452.3	453.2	442.0	466.4	452.4	466.0	4944.8
EA (%)	100.0	100.0	87.4	1.6	98.7	99.5	100.0	99.9	99.4	100.0	100.0	99.8	90.6
UCF (%)	100.0	100.0	87.4	1.6	98.7	99.5	100.0	99.9	99.4	100.0	100.0	99.8	90.6
LF (%)	104.0	102.9	90.1	1.7	100.7	101.4	99.7	99.9	100.6	102.6	103.0	102.7	92.5
OF (%)	100.0	100.0	87.6	4.7	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	91.1
EUF (%)	0.0	0.0	12.6	98.4	1.3	0.5	0.0	0.1	0.6	0.0	0.0	0.2	9.4
PUF (%)	0.0	0.0	12.6	98.4	1.3	0.5	0.0	0.0	0.6	0.0	0.0	0.2	9.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE IS NO UNPLANNED SCRAM IN 2005. FROM 2005-3-28 TO 2005-5-4. THE UNIT WAS OUTAGE FOR REFUELING.

5. Historical Summary

Date of Construction Start: 02 Jun 1996 **Lifetime Generation:** 16633.0 GW(e).h
Date of First Criticality: 15 Nov 2001 **Cumulative Energy Availability Factor:** 83.4%
Date of Grid Connection: 06 Feb 2002 **Cumulative Load Factor:** 82.9%
Date of Commercial Operation: 18 Apr 2002 **Cumulative Unit Capability Factor:** 83.4%
Cumulative Energy Unavailability Factor: 16.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002	2965.3	610.0	81.6	81.6	81.6	81.6	73.6	73.6	4631	70.2
2003	4327.3	610.0	81.0	81.2	80.9	81.2	81.0	77.8	7123	81.3
2004	4395.7	610.0	80.1	80.8	80.1	80.8	82.0	79.4	7117	81.0
2005	4944.8	610.0	90.6	83.4	90.6	83.4	92.5	82.9	7982	91.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2003 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					68	
C. Inspection, maintenance or repair combined with refuelling	867			983		
Z. Others					48	
Subtotal	867	0	0	983	116	0
Total		867			1099	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2003 to 2005 Average Hours Lost Per Year
32. Feedwater and Main Steam System		1
41. Main Generator Systems		67
Total	0	68

CN-5 QINSHAN 2-2

Operator: NPQJVC (NUCLEAR POWER PLANT QINSHAN JOINT VENTURE COMPANY LTD.)

Contractor: CNNC (CHINA NATIONAL NUCLEAR CORPORATION)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 610.0 MW(e)
Design Net Capacity: 610.0 MW(e)
Design Discharge Burnup: —
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4521.5 GW(e).h
Energy Availability Factor: 82.7%
Load Factor: 84.6%
Operating Factor: 83.7%
Energy Unavailability Factor: 17.3%
Total Off-line Time: 1429 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	467.5	405.2	468.2	455.4	243.9	0.0	203.2	455.0	444.9	462.8	450.2	465.1	4521.5
EAF (%)	100.0	96.9	99.7	100.0	51.8	0.0	44.8	99.9	100.0	99.5	100.0	100.0	82.7
UCF (%)	100.0	97.9	99.7	100.0	51.8	0.0	44.8	99.9	100.0	99.5	100.0	100.0	82.8
LF (%)	103.0	98.9	103.2	103.8	53.7	0.0	44.8	100.3	101.3	101.8	102.5	102.5	84.6
OF (%)	100.0	100.0	100.0	100.1	52.0	0.0	52.7	100.0	100.0	99.9	100.0	100.0	83.7
EUF (%)	0.0	3.1	0.3	0.0	48.2	100.0	55.2	0.1	0.0	0.5	0.0	0.0	17.3
PUF (%)	0.0	0.0	0.3	0.0	48.2	100.0	40.8	0.0	0.0	0.5	0.0	0.0	15.8
UCLF (%)	0.0	2.1	0.0	0.0	0.0	0.0	14.4	0.1	0.0	0.0	0.0	0.0	1.4
XUF (%)	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE IS NO UNPLANNED SCRAM IN 2005. FROM 2005-5-17 TO 2005-7-14, THE UNIT WAS OUTAGE FOR REFUELLING.

5. Historical Summary

Date of Construction Start: 01 Apr 1997 **Lifetime Generation:** 8005.6 GW(e).h
Date of First Criticality: 25 Feb 2004 **Cumulative Energy Availability Factor:** 88.1%
Date of Grid Connection: 11 Mar 2004 **Cumulative Load Factor:** 90.0%
Date of Commercial Operation: 03 May 2004 **Cumulative Unit Capability Factor:** 88.2%
Cumulative Energy Unavailability Factor: 11.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2004	3514.3	610.0	96.2	96.2	96.2	96.2	98.0	98.0	5682	96.6
2005	4521.5	610.0	82.8	88.2	82.7	88.1	84.6	90.0	7331	83.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2004 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		112			16	
C. Inspection, maintenance or repair combined with refuelling	1400					
D. Inspection, maintenance or repair without refuelling				82		
Subtotal	1400	112	0	82	16	0
Total		1512			98	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2004 to 2005 Average Hours Lost Per Year
31. Turbine and auxiliaries	112	
32. Feedwater and Main Steam System		3
42. Electrical Power Supply Systems		13
Total	112	16

CN-8 QINSHAN 3-1

Operator: TQNPC (The Third Qinshan Jointed Venture Company Ltd.)

Contractor: AECL (ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 650.0 MW(e)
Design Net Capacity: 0.0 MW(e)
Design Discharge Burnup: 8330 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4781.6 GW(e).h
Energy Availability Factor: 82.4%
Load Factor: 84.0%
Operating Factor: 82.8%
Energy Unavailability Factor: 17.6%
Total Off-line Time: 1511 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	502.8	449.8	499.9	485.1	496.9	307.8	478.5	478.8	467.9	390.6	223.6	0.0	4781.6
EAF (%)	100.0	99.0	99.5	100.0	99.9	65.6	100.0	100.0	100.0	78.4	46.9	0.9	82.4
UCF (%)	100.0	100.0	99.5	100.0	99.9	65.6	100.0	100.0	100.0	78.4	46.9	0.9	82.5
LF (%)	104.0	103.0	103.4	103.8	102.7	65.8	98.9	99.0	100.0	80.7	47.8	0.0	84.0
OF (%)	100.0	100.0	100.0	100.1	100.0	67.1	100.0	100.0	100.0	80.1	46.8	0.0	82.8
EUf (%)	0.0	1.0	0.5	0.0	0.1	34.4	0.0	0.0	0.0	21.6	53.1	99.1	17.6
PUf (%)	0.0	0.0	0.5	0.0	0.0	34.4	0.0	0.0	0.0	0.0	53.1	99.1	15.7
UCLF (%)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	21.6	0.0	0.0	1.8
XUF (%)	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

AT 01:29 JUNE 6, THE UNIT STARTED A PLANNED MINI-OVERHAUL. THE UNIT RETURNED TO SERVICE AT 14:15 JUNE 15. AT 13:15 OCT. 16, THE UNIT WAS MANUALLY SCRAMMED DUE TO FAILURE OF CHANNEL A OF UPS. THE UNIT RETURNED TO SERVICE AT 17:47 OCT. 22. FROM 01:16 NOV. 15, THE UNIT STARTED THE 60 DAYS PLANNED OUTAGE.

5. Historical Summary

Date of Construction Start: 08 Jun 1998 **Lifetime Generation:** 14549.2 GW(e).h
Date of First Criticality: 21 Sep 2002 **Cumulative Energy Availability Factor:** 81.5%
Date of Grid Connection: 19 Nov 2002 **Cumulative Load Factor:** 84.0%
Date of Commercial Operation: 31 Dec 2002 **Cumulative Unit Capability Factor:** 82.6%
Cumulative Energy Unavailability Factor: 18.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002			Data not provided							
2003	5174.7	650.0	89.7	89.7	86.6	86.6	90.9	90.9	7977	91.1
2004	4405.5	650.0	75.6	82.6	75.6	81.1	77.2	84.0	6745	76.8
2005	4781.6	650.0	82.5	82.6	82.4	81.5	84.0	84.0	7249	82.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2003 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		148			271	
D. Inspection, maintenance or repair without refuelling	1358			650		
Subtotal	1358	148	0	650	271	0
Total		1506			921	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2003 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		44
15. Reactor Cooling Systems		98
32. Feedwater and Main Steam System		12
42. Electrical Power Supply Systems	148	116
Total	148	270

CN-9 QINSHAN 3-2

Operator: TQNPC (The Third Qinshan Jointed Venture Company Ltd.)

Contractor: AECL (ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 665.0 MW(e)
Design Net Capacity: 650.0 MW(e)
Design Discharge Burnup: 8330 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4604.6 GW(e).h
Energy Availability Factor: 80.1%
Load Factor: 79.0%
Operating Factor: 80.1%
Energy Unavailability Factor: 19.9%
Total Off-line Time: 1746 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	500.3	445.7	418.2	0.0	42.7	472.4	477.6	476.0	363.0	427.6	481.4	499.8	4604.6
EAF (%)	100.0	98.6	82.9	3.0	11.6	100.0	100.0	100.0	78.8	87.1	100.0	100.0	80.1
UCF (%)	100.0	100.0	83.0	3.0	11.6	100.0	100.0	100.0	78.9	87.1	100.0	100.0	80.2
LF (%)	101.1	99.7	84.5	0.0	8.6	98.7	96.5	96.2	75.8	86.3	100.6	101.0	79.0
OF (%)	100.0	100.0	84.1	0.0	11.0	100.0	100.0	100.0	78.2	87.9	100.0	100.0	80.1
EUF (%)	0.0	1.4	17.1	97.0	88.4	0.0	0.0	0.0	21.2	12.9	0.0	0.0	19.9
PUF (%)	0.0	0.0	17.0	97.0	87.8	0.0	0.0	0.0	12.9	12.9	0.0	0.0	19.0
UCLF (%)	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.7
XUF (%)	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

AT 01:48 MAR.27, THE UNIT STARTED THE FIRST PLANNED OUTAGE. THE UNIT RETURNED TO SERVICE AT 14:29 MAY 28. AT 10:30 SEP. 24, THE UNIT WAS SETBACK DUE TO SG LOW LEVEL DURING THE MAIN FEEDWATER PUMP SWITCH OVER TEST, AND SUBSEQUENTLY THE SDS-1 WAS TRIPPED AND THE UNIT WAS AUTOMATICALLY SCRAMED. LATER, THE UNIT STARTED THE PLANNED MINI-OVERHAUL. THE UNIT RETURNED TO SERVICE AT 17:44 OCT. 4.

5. Historical Summary

Date of Construction Start: 25 Sep 1998
Date of First Criticality: 18 Jan 2003
Date of Grid Connection: 12 Jun 2003
Date of Commercial Operation: 24 Jul 2003

Lifetime Generation: 12068.9 GW(e).h
Cumulative Energy Availability Factor: 86.3%
Cumulative Load Factor: 85.4%
Cumulative Unit Capability Factor: 86.6%
Cumulative Energy Unavailability Factor: 13.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2003			Data not provided							
2004	5358.6	665.0	93.0	93.0	92.4	92.4	91.7	91.7	8236	93.8
2005	4604.6	665.0	80.2	86.6	80.1	86.3	79.0	85.4	7014	80.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2004 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		52			39	
D. Inspection, maintenance or repair without refuelling	1686			154		
L. Human factor related					47	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						23
Subtotal	1686	52	0	154	86	23
Total		1738			263	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2004 to 2005 Average Hours Lost Per Year
16. Steam generation systems	52	
42. Electrical Power Supply Systems		39
Total	52	39

TW-1 CHIN SHAN-1

Operator: TPC (TAI POWER CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 604.0 MW(e)
 Design Net Capacity: 604.0 MW(e)
 Design Discharge Burnup: 30000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4573.8 GW(e).h
 Energy Availability Factor: 86.8%
 Load Factor: 86.4%
 Operating Factor: 88.4%
 Energy Unavailability Factor: 13.2%
 Total Off-line Time: 1015 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	452.0	410.9	453.2	435.0	444.3	424.1	424.5	401.2	1.6	238.9	435.7	452.5	4573.8
EAF (%)	99.9	100.0	99.8	100.0	99.8	99.0	96.6	92.4	0.5	53.2	100.0	99.9	86.8
UCF (%)	99.9	100.0	99.8	100.0	99.8	99.0	100.0	99.9	3.0	53.3	100.0	99.9	87.9
LF (%)	100.6	101.2	100.9	100.2	98.9	97.5	94.5	89.3	0.4	53.1	100.2	100.7	86.4
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	3.1	57.3	100.0	100.0	88.4
EUf (%)	0.1	0.0	0.2	0.0	0.2	1.0	3.4	7.6	99.5	46.8	0.0	0.1	13.2
PUF (%)	0.1	0.0	0.2	0.0	0.2	0.5	0.0	0.1	97.0	45.3	0.0	0.1	11.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.5	0.0	0.0	0.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	3.4	7.5	2.5	0.0	0.0	0.0	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

1.POWER REDUCTION FOR LUBE OIL OF RECIRC. P/P MOTOR 1A LEAKAGE REPAIR ON JUN.12,2005.2.POWER RESTRICTION DUE TO TYPHOON ON JUL.18 AND AUG.05,2005.3.EOC-21 COASTDOWN OPERATION DURING AUG.01 TILL AUG.31,2005.4.EOC-21 REFUELING OUTAGE DURING SEP.01 TILL OCT.13,2005.5.REACTOR OPERATED STEADILY AT FULL POWER EXCEPT ROUTINE SURVEILLANCE TESTS AND SIGNIFICANT FACTORS ABOVE.

5. Historical Summary

Date of Construction Start:	02 Jun 1972	Lifetime Generation:	113048.6 GW(e).h
Date of First Criticality:	16 Oct 1977	Cumulative Energy Availability Factor:	80.8%
Date of Grid Connection:	16 Nov 1977	Cumulative Load Factor:	80.2%
Date of Commercial Operation:	10 Dec 1978	Cumulative Unit Capability Factor:	82.0%
		Cumulative Energy Unavailability Factor:	19.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978			Data not provided							
1979			"							
1980			"							
1981			"							
1982			"							
1983			"							
1984			"							
1985			"							
1986			"							
1987			"							
1988			"							
1989	2783.4	604.0	55.3	55.3	55.3	55.3	52.6	52.6	5226	59.7
1990	2968.5	591.0	55.4	55.3	54.8	55.1	57.3	54.9	5315	60.7
1991	4391.4	604.0	83.9	64.9	82.0	64.1	83.0	64.4	7602	86.8
1992	4017.7	604.0	77.6	68.1	76.6	67.3	75.7	67.2	7260	82.7
1993	4424.0	604.0	86.5	71.8	83.0	70.4	83.6	70.5	7854	89.7
1994	3645.4	604.0	69.4	71.4	67.7	70.0	68.9	70.2	6458	73.7
1995	4154.3	604.0	81.0	72.8	80.5	71.5	78.5	71.4	7168	81.8
1996	4070.9	604.0	81.8	73.9	78.6	72.4	76.7	72.1	7051	80.3
1997	4990.5	604.0	96.4	76.4	96.2	75.0	94.3	74.6	8558	97.7
1998	4295.1	604.0	85.2	77.3	83.5	75.9	81.2	75.2	7448	85.0
1999	4081.1	604.0	81.2	77.7	78.8	76.1	77.1	75.4	7156	81.7
2000	5226.1	604.0	99.8	79.5	99.2	78.1	98.5	77.3	8784	100.0
2001	4319.7	604.0	82.1	79.7	81.5	78.3	81.6	77.7	7282	83.1
2002	4376.0	604.0	83.5	80.0	83.4	78.7	82.7	78.0	7367	84.1
2003	5240.0	604.0	99.6	81.3	99.4	80.1	99.0	79.4	8760	100.0
2004	4541.9	604.0	86.4	81.6	85.8	80.4	85.6	79.8	7646	87.0
2005	4573.8	604.0	87.9	82.0	86.8	80.8	86.4	80.2	7745	88.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					201	
B. Refuelling without a maintenance	1015					
C. Inspection, maintenance or repair combined with refuelling				1078		
D. Inspection, maintenance or repair without refuelling				41		
E. Testing of plant systems or components				0	12	
H. Nuclear regulatory requirements						1
J. Grid failure or grid unavailability						8
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						18
Subtotal	1015	0	0	1119	213	27
Total	1015			1359		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
14. Safety Systems		66
15. Reactor Cooling Systems		49
31. Turbine and auxiliaries		36
32. Feedwater and Main Steam System		3
41. Main Generator Systems		0
42. Electrical Power Supply Systems		42
Total	0	198

TW-2 CHIN SHAN-2

Operator: TPC (TAI POWER CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 604.0 MW(e)
 Design Net Capacity: 604.0 MW(e)
 Design Discharge Burnup: 30000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4530.5 GW(e).h
 Energy Availability Factor: 85.2%
 Load Factor: 85.6%
 Operating Factor: 87.2%
 Energy Unavailability Factor: 14.8%
 Total Off-line Time: 1119 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	455.5	203.2	0.2	391.6	452.1	434.4	417.9	431.7	408.9	445.8	432.5	456.5	4530.5
EAF (%)	99.4	49.0	0.0	88.9	100.0	100.0	94.3	97.2	94.8	98.3	98.1	99.7	85.2
UCF (%)	100.0	52.3	0.0	88.9	100.0	100.0	97.8	99.6	97.1	99.4	98.1	99.8	86.3
LF (%)	101.4	50.1	0.0	90.2	100.6	99.9	93.0	96.1	94.0	99.1	99.5	101.6	85.6
OF (%)	100.0	53.1	0.3	91.5	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	87.2
EUF (%)	0.6	51.0	100.0	11.1	0.0	0.0	5.7	2.8	5.2	1.7	1.9	0.3	14.8
PUF (%)	0.0	47.7	93.8	5.7	0.0	0.0	0.0	0.0	2.9	0.6	0.0	0.3	12.4
UCLF (%)	0.0	0.0	6.2	5.4	0.0	0.0	2.2	0.4	0.0	0.0	1.9	0.0	1.3
XUF (%)	0.6	3.3	0.0	0.0	0.0	0.0	3.5	2.4	2.3	1.1	0.0	0.0	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

1.EOC-20 COASTDOWN OPERATION DURING JAN.23 TILL FEB.15,2005.2.EOC-20 REFUELING OUTAGE DURING FEB.15, TILL MAR.31,2005.3.REACTOR HOT SHUTDOWN FOR LCV-103-21B2 REPAIR AND MAIN CONDENSER LEAKAGE CHECK ON APR.23,2005.4.POWER RESTRICTION DUE TO TYPHOON ON JUL.18-19AUG.05AUG.31 AND OCT.02,2005.5.POWER REDUCTION FOR EQUIPMENT REPAIR ON SEP.29,2005-1A-1MAIN T-1FB GV-3 LVDT-1B-1PRESSURE SEAL RING OF MOV-102-229B-1C-1TORQUE SWITCH OF MOV-E51-F007.6.POWER REDUCTION DUE TO RECIRC. M-G SET B TRIPPED ON NOV.07,2005.

5. Historical Summary

Date of Construction Start: 07 Dec 1973
Date of First Criticality: 09 Nov 1978
Date of Grid Connection: 19 Dec 1978
Date of Commercial Operation: 15 Jul 1979

Lifetime Generation: 111201.3 GW(e).h
Cumulative Energy Availability Factor: 80.0%
Cumulative Load Factor: 80.0%
Cumulative Unit Capability Factor: 81.2%
Cumulative Energy Unavailability Factor: 20.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	Data not provided									
1980	"									
1981	"									
1982	"									
1983	"									
1984	"									
1985	"									
1986	"									
1987	"									
1988	"									
1989	3059.8	604.0	59.3	59.3	59.3	59.3	57.8	57.8	6010	68.6
1990	3436.8	593.0	65.4	62.3	64.8	62.1	66.2	62.0	6242	71.3
1991	3783.5	604.0	72.5	65.8	70.1	64.8	71.5	65.2	6847	78.2
1992	4129.2	604.0	79.1	69.1	78.5	68.2	77.8	68.3	7326	83.4
1993	3934.9	604.0	76.7	70.6	73.1	69.2	74.4	69.6	6992	79.8
1994	3979.5	604.0	78.8	72.0	76.6	70.4	75.2	70.5	7001	79.9
1995	3885.7	604.0	77.5	72.8	75.9	71.2	73.4	70.9	6808	77.7
1996	4001.5	604.0	78.0	73.4	77.5	72.0	75.4	71.5	6897	78.5
1997	4325.5	604.0	80.6	74.2	80.1	72.9	81.8	72.6	7168	81.8
1998	4841.5	604.0	96.0	76.4	94.7	75.1	91.5	74.5	8422	96.1
1999	4296.3	604.0	82.6	77.0	80.7	75.6	81.2	75.1	7274	83.0
2000	4596.5	604.0	85.9	77.7	85.3	76.4	86.6	76.1	7584	86.3
2001	5018.1	604.0	95.0	79.0	93.9	77.8	94.8	77.5	8515	97.2
2002	4290.4	604.0	80.6	79.2	80.5	77.9	81.1	77.8	7414	84.6
2003	4574.5	604.0	86.5	79.6	86.0	78.5	86.5	78.4	7595	86.7
2004	5247.6	604.0	98.6	80.8	98.0	79.7	98.9	79.7	8704	99.1
2005	4530.5	604.0	86.3	81.2	85.2	80.0	85.6	80.0	7641	87.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		104			206	
B. Refuelling without a maintenance	1015				10	
C. Inspection, maintenance or repair combined with refuelling				1027		
D. Inspection, maintenance or repair without refuelling				62		
E. Testing of plant systems or components				2		
H. Nuclear regulatory requirements						1
J. Grid failure or grid unavailability						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						6
Subtotal	1015	104	0	1091	216	12
Total		1119			1319	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	46	5
12. Reactor I&C Systems		2
14. Safety Systems		1
15. Reactor Cooling Systems		69
21. Fuel Handling and Storage Facilities		8
31. Turbine and auxiliaries	58	48
32. Feedwater and Main Steam System		18
33. Circulating Water System		12
41. Main Generator Systems		26
42. Electrical Power Supply Systems		13
Total	104	202

TW-3 KUOSHENG-1

Operator: TPC (TAI POWER CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 948.0 MW(e)
 Design Net Capacity: 951.0 MW(e)
 Design Discharge Burnup: —
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8150.1 GW(e).h
 Energy Availability Factor: 98.4%
 Load Factor: 98.1%
 Operating Factor: 99.9%
 Energy Unavailability Factor: 1.6%
 Total Off-line Time: 11 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	703.7	642.1	705.5	684.3	697.3	673.8	663.2	670.5	646.2	690.5	671.8	701.2	8150.1
EAF (%)	99.2	99.9	99.4	99.9	99.0	99.3	95.1	96.4	95.6	98.6	99.1	99.9	98.4
UCF (%)	99.2	99.9	99.4	99.9	99.4	99.7	99.9	99.7	99.7	99.6	99.6	100.0	99.7
LF (%)	99.8	100.8	100.0	100.3	98.9	98.7	94.0	95.1	94.7	97.9	98.4	99.4	98.1
OF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	100.0	100.0	100.0	99.9
EUf (%)	0.8	0.1	0.6	0.1	1.0	0.7	4.9	3.6	4.4	1.4	0.9	0.1	1.6
PUf (%)	0.6	0.1	0.6	0.1	0.6	0.3	0.1	0.3	0.3	0.4	0.4	0.1	0.3
UCLF (%)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.4	0.4	4.8	3.2	4.1	1.0	0.4	0.0	1.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

SEP.1~SEP.2 TURBINE TRIP DUE TO MAIN TRANSFORMER DAMAGE DURING TYPHOON INVAIDING.UNIT KEEPING
 OPERATE ALL YEAR EXCEPT THE OUTAGE ABOVE.

5. Historical Summary

Date of Construction Start: 19 Nov 1975 Lifetime Generation: 154852.3 GW(e).h
 Date of First Criticality: 01 Feb 1981 Cumulative Energy Availability Factor: 81.5%
 Date of Grid Connection: 21 May 1981 Cumulative Load Factor: 80.2%
 Date of Commercial Operation: 28 Dec 1981 Cumulative Unit Capability Factor: 82.2%
 Cumulative Energy Unavailability Factor: 18.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	Data not provided									
1982	"									
1983	"									
1984	"									
1985	"									
1986	"									
1987	"									
1988	"									
1989	5329.1	951.0	64.9	64.9	63.0	63.0	64.0	64.0	6447	73.6
1990	6898.0	918.0	87.4	76.0	86.8	74.7	85.8	74.7	8201	93.6
1991	5850.8	951.0	71.4	74.4	71.4	73.6	70.2	73.2	6678	76.2
1992	6152.4	951.0	78.4	75.4	78.4	74.8	73.6	73.3	7126	81.1
1993	5679.5	951.0	71.1	74.6	71.1	74.0	68.2	72.3	6457	73.7
1994	6302.3	950.0	77.8	75.1	76.9	74.5	75.7	72.8	7077	80.8
1995	6897.9	948.0	84.7	76.5	84.6	76.0	83.1	74.3	7734	88.3
1996	6950.8	948.0	84.8	77.5	84.3	77.0	83.5	75.5	7573	86.2
1997	6277.8	948.0	77.7	77.5	77.5	77.1	75.6	75.5	6978	79.7
1998	6426.0	948.0	81.2	77.9	79.7	77.3	77.4	75.7	7209	82.3
1999	7686.8	948.0	95.1	79.5	93.8	78.8	92.6	77.2	8439	96.3
2000	6588.6	948.0	81.3	79.6	80.2	78.9	79.1	77.4	7391	84.1
2001	6452.3	948.0	79.4	79.6	78.8	78.9	77.7	77.4	7070	80.7
2002	8068.5	948.0	98.5	81.0	98.1	80.3	97.2	78.8	8693	99.2
2003	6444.9	948.0	78.5	80.8	78.3	80.2	77.6	78.7	6968	79.5
2004	6978.5	948.0	85.1	81.1	84.7	80.5	83.8	79.0	7516	85.6
2005	8150.1	948.0	99.7	82.2	98.4	81.5	98.1	80.2	8749	99.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				6	152	
B. Refuelling without a maintenance				66	14	
C. Inspection, maintenance or repair combined with refuelling				1004		
D. Inspection, maintenance or repair without refuelling				77		
E. Testing of plant systems or components				9		
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						7
L. Human factor related					3	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			11			
Subtotal	0	0	11	1162	169	9
Total		11			1340	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		7
13. Reactor Auxiliary Systems		4
15. Reactor Cooling Systems		6
21. Fuel Handling and Storage Facilities		23
31. Turbine and auxiliaries		28
32. Feedwater and Main Steam System		48
33. Circulating Water System		13
35. All other I&C Systems		2
41. Main Generator Systems		10
42. Electrical Power Supply Systems		10
Total	0	153

TW-4 KUOSHENG-2

Operator: TPC (TAI POWER CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 948.0 MW(e)
 Design Net Capacity: 951.0 MW(e)
 Design Discharge Burnup: —
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6737.8 GW(e).h
 Energy Availability Factor: 82.3%
 Load Factor: 81.1%
 Operating Factor: 84.7%
 Energy Unavailability Factor: 17.7%
 Total Off-line Time: 1336 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	695.0	628.1	680.3	667.6	691.1	662.8	652.5	658.8	642.1	335.4	0.0	424.2	6737.8
EAF (%)	99.2	99.3	97.2	98.8	99.4	99.0	94.8	96.0	96.8	47.7	0.0	59.7	82.3
UCF (%)	99.2	99.3	97.2	98.8	99.9	99.7	99.9	99.7	99.6	50.1	0.0	59.7	83.5
LF (%)	98.5	98.6	96.5	97.9	98.0	97.1	92.5	93.4	94.1	47.5	0.0	60.1	81.1
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	51.8	0.0	65.3	84.7
EUf (%)	0.8	0.7	2.8	1.2	0.6	1.0	5.2	4.0	3.2	52.3	100.0	40.3	17.7
PUf (%)	0.8	0.7	0.7	1.1	0.1	0.3	0.1	0.3	0.4	50.0	100.0	37.5	16.0
UCLF (%)	0.0	0.0	2.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.5	0.7	5.1	3.7	2.8	2.3	0.0	0.0	1.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OCT.17~DEC.09 EOC-17 REFUELING OUTAGE. THE REFUELING OUTAGE DELAYED 0.86 DAY DUE TO RECIRCULATED PIPE OVERLAYED TASK. EXCEPT THAT, UNIT KEPT OPERATING ALL YEAR.

5. Historical Summary

Date of Construction Start: 15 Mar 1976 Lifetime Generation: 148905.2 GW(e).h
 Date of First Criticality: 26 Mar 1982 Cumulative Energy Availability Factor: 80.3%
 Date of Grid Connection: 29 Jun 1982 Cumulative Load Factor: 79.2%
 Date of Commercial Operation: 16 Mar 1983 Cumulative Unit Capability Factor: 81.4%
 Cumulative Energy Unavailability Factor: 19.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	Data not provided									
1984	"									
1985	"									
1986	"									
1987	"									
1988	"									
1989	5227.3	951.0	65.3	65.3	61.9	61.9	62.7	62.7	6390	72.9
1990	6000.6	936.0	74.0	69.6	73.5	67.6	73.2	67.9	6819	77.8
1991	7186.3	951.0	89.3	76.2	89.3	74.9	86.3	74.1	8101	92.5
1992	6176.3	951.0	76.8	76.4	76.8	75.4	73.9	74.0	6985	79.5
1993	6138.1	951.0	74.9	76.1	74.9	75.3	73.7	74.0	6921	79.0
1994	6224.1	950.0	76.0	76.1	74.8	75.2	74.8	74.1	6868	78.4
1995	5999.7	948.0	72.9	75.6	72.2	74.8	72.2	73.8	6543	74.7
1996	7423.2	948.0	90.0	77.4	89.6	76.6	89.1	75.8	7978	90.8
1997	7087.2	948.0	88.7	78.7	86.1	77.7	85.3	76.8	7745	88.4
1998	6549.6	948.0	80.3	78.8	79.3	77.8	78.9	77.0	7242	82.7
1999	6831.9	948.0	85.9	79.5	84.2	78.4	82.3	77.5	7544	86.1
2000	7237.6	948.0	91.4	80.5	89.3	79.3	86.9	78.3	8234	93.7
2001	5976.7	948.0	74.1	80.0	72.4	78.8	72.0	77.8	6772	77.3
2002	6922.6	948.0	85.5	80.4	85.1	79.2	83.4	78.2	7530	86.0
2003	7623.1	948.0	93.7	81.3	93.5	80.2	91.8	79.1	8427	96.2
2004	6494.0	948.0	81.3	81.3	79.8	80.2	78.0	79.0	7301	83.1
2005	6737.8	948.0	83.5	81.4	82.3	80.3	81.1	79.2	7424	84.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		21			143	
B. Refuelling without a maintenance				65	19	
C. Inspection, maintenance or repair combined with refuelling	1297			957		
D. Inspection, maintenance or repair without refuelling				103		
E. Testing of plant systems or components	18			21		
J. Grid failure or grid unavailability					7	4
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	16
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						3
Subtotal	1315	21	0	1146	170	23
Total	1336			1339		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		2
14. Safety Systems		6
15. Reactor Cooling Systems	21	23
21. Fuel Handling and Storage Facilities		38
31. Turbine and auxiliaries		18
32. Feedwater and Main Steam System		25
33. Circulating Water System		5
35. All other I&C Systems		11
41. Main Generator Systems		0
42. Electrical Power Supply Systems		5
Total	21	137

TW-5 MAANSHAN-1**Operator:** TPC (TAI POWER CO.)**Contractor:** WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 890.0 MW(e)

Design Net Capacity: 890.0 MW(e)

Design Discharge Burnup: 43000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7701.7 GW(e).h

Energy Availability Factor: 98.0%

Load Factor: 98.8%

Operating Factor: 99.2%

Energy Unavailability Factor: 2.0%

Total Off-line Time: 67 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	677.9	611.2	618.9	615.7	662.5	643.5	653.9	663.4	640.2	661.9	603.8	648.9	7701.7
EAF (%)	99.9	100.0	91.8	95.2	99.5	100.0	98.6	99.9	99.9	99.9	94.1	96.9	98.0
UCF (%)	100.0	100.0	91.8	95.2	99.5	100.0	100.0	99.9	99.9	99.9	94.1	96.9	98.1
LF (%)	102.4	102.2	93.5	96.2	100.1	100.4	98.8	100.2	99.9	99.8	94.2	98.0	98.8
OF (%)	100.0	100.0	93.0	98.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	99.2
EUF (%)	0.1	0.0	8.2	4.8	0.5	0.0	1.4	0.1	0.1	0.1	5.9	3.1	2.0
PUF (%)	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
UCLF (%)	0.0	0.0	8.1	4.8	0.5	0.0	0.0	0.0	0.0	0.0	5.9	3.1	1.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT OPERATED AT FULL POWER IN BASE-LOAD OVER THE YEAR EXCEPT UNIT OUTAGE, SURVEILLANCE TEST AND SO ON.

5. Historical Summary

Date of Construction Start: 21 Aug 1978 **Lifetime Generation:** 127963.1 GW(e).h

Date of First Criticality: 30 Mar 1984 **Cumulative Energy Availability Factor:** 82.1%

Date of Grid Connection: 09 May 1984 **Cumulative Load Factor:** 83.6%

Date of Commercial Operation: 27 Jul 1984 **Cumulative Unit Capability Factor:** 83.9%

Cumulative Energy Unavailability Factor: 17.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	Data not provided									
1985	"									
1986	"									
1987	"									
1988	"									
1989	5418.4	890.0	66.3	66.3	66.0	66.0	69.5	69.5	6305	72.0
1990	6098.9	894.0	77.8	72.0	76.8	71.4	77.9	73.7	7079	80.8
1991	6479.1	890.0	84.0	76.0	82.7	75.2	83.1	76.8	7368	84.1
1992	6038.8	890.0	76.7	76.2	76.2	75.4	77.2	76.9	6826	77.7
1993	6258.8	890.0	78.5	76.7	78.5	76.0	80.3	77.6	6930	79.1
1994	6322.6	890.0	79.7	77.2	79.6	76.6	81.1	78.2	7098	81.0
1995	6741.1	890.0	84.5	78.2	84.4	77.7	86.5	79.4	7495	85.6
1996	7537.0	890.0	95.8	80.4	93.8	79.7	96.4	81.5	8329	94.8
1997	5949.2	890.0	74.8	79.8	74.3	79.1	76.3	80.9	6752	77.1
1998	5514.5	890.0	69.2	78.7	69.2	78.1	70.7	79.9	6101	69.6
1999	7392.7	890.0	96.3	80.3	92.6	79.5	94.8	81.3	8328	95.1
2000	6729.0	890.0	84.6	80.7	84.3	79.9	86.1	81.7	7502	85.4
2001	5333.3	890.0	86.1	81.1	67.6	78.9	68.4	80.6	6046	69.0
2002	7800.8	890.0	98.8	82.4	98.7	80.3	100.1	82.0	8726	99.6
2003	6751.0	890.0	87.3	82.7	86.2	80.7	86.6	82.3	7579	86.5
2004	6793.7	890.0	87.4	83.0	86.8	81.1	86.9	82.6	7742	88.1
2005	7701.7	890.0	98.1	83.9	98.0	82.1	98.8	83.6	8693	99.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		52			226	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling				960	106	
D. Inspection, maintenance or repair without refuelling		15		1		
E. Testing of plant systems or components				9		
H. Nuclear regulatory requirements					0	
J. Grid failure or grid unavailability						98
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						11
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						4
Subtotal	0	67	0	970	340	113
Total		67			1423	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		2
15. Reactor Cooling Systems		27
16. Steam generation systems		20
31. Turbine and auxiliaries		21
32. Feedwater and Main Steam System	52	6
41. Main Generator Systems		92
42. Electrical Power Supply Systems		42
Total	52	222

TW-6 MAANSHAN-2

Operator: TPC (TAI POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 890.0 MW(e)
 Design Net Capacity: 890.0 MW(e)
 Design Discharge Burnup: 43000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6710.0 GW(e).h
 Energy Availability Factor: 85.1%
 Load Factor: 86.1%
 Operating Factor: 87.4%
 Energy Unavailability Factor: 14.9%
 Total Off-line Time: 1104 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	600.3	576.1	643.4	221.8	308.9	653.7	655.5	666.2	397.2	662.2	652.7	672.1	6710.0
EAF (%)	90.7	96.3	97.2	34.5	46.0	100.0	97.4	99.3	61.1	98.2	100.0	99.8	85.1
UCF (%)	91.0	96.3	97.2	34.5	46.0	100.0	98.9	100.0	61.6	99.9	100.0	99.8	85.5
LF (%)	90.7	96.3	97.2	34.7	46.7	102.0	99.0	100.6	62.0	99.9	101.9	101.5	86.1
OF (%)	93.4	99.1	100.0	37.0	52.8	100.0	100.0	100.0	66.1	99.9	100.0	100.0	87.4
EUF (%)	9.3	3.7	2.8	65.5	54.0	0.0	2.6	0.7	38.9	1.8	0.0	0.2	14.9
PUF (%)	2.1	1.9	2.8	65.5	54.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	10.6
UCLF (%)	6.9	1.8	0.0	0.0	0.0	0.0	1.1	0.0	38.4	0.0	0.0	0.0	4.0
XUF (%)	0.4	0.0	0.0	0.0	0.0	0.0	1.5	0.7	0.5	1.7	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT OPERATED AT FULL POWER IN BASE-LOAD OVER THE YEAR EXCEPT UNIT OUTAGE, SURVEILLANCE TEST AND SO ON.

5. Historical Summary

Date of Construction Start: 21 Feb 1979 Lifetime Generation: 130787.6 GW(e).h
 Date of First Criticality: 01 Feb 1985 Cumulative Energy Availability Factor: 82.5%
 Date of Grid Connection: 25 Feb 1985 Cumulative Load Factor: 84.4%
 Date of Commercial Operation: 18 May 1985 Cumulative Unit Capability Factor: 84.7%
 Cumulative Energy Unavailability Factor: 17.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	Data not provided									
1986	"									
1987	"									
1988	"									
1989	5283.3	890.0	58.8	58.8	58.1	58.1	67.8	67.8	6434	73.4
1990	6141.3	896.0	78.8	68.9	77.3	67.7	78.2	73.0	7143	81.5
1991	6187.1	890.0	80.4	72.7	78.6	71.3	79.4	75.1	7155	81.7
1992	5956.6	890.0	84.3	75.6	75.5	72.4	76.2	75.4	7541	85.8
1993	6551.0	890.0	84.1	77.3	84.1	74.7	84.0	77.1	7442	85.0
1994	7006.5	890.0	93.3	80.0	88.7	77.0	89.9	79.2	8216	93.8
1995	6118.6	890.0	77.1	79.6	77.1	77.1	78.5	79.1	6947	79.3
1996	6349.8	890.0	81.0	79.7	79.8	77.4	81.2	79.4	7091	80.7
1997	6415.4	890.0	81.6	79.9	81.1	77.8	82.3	79.7	7153	81.7
1998	7781.1	890.0	97.4	81.7	97.2	79.7	99.8	81.7	8557	97.7
1999	6628.4	890.0	85.3	82.0	82.7	80.0	85.0	82.0	7427	84.8
2000	6618.6	890.0	84.1	82.2	82.6	80.2	84.7	82.2	7401	84.3
2001	6993.8	890.0	99.4	83.5	87.3	80.8	89.7	82.8	7729	88.2
2002	6639.8	890.0	82.4	83.4	82.4	80.9	85.2	83.0	7507	85.7
2003	6737.6	890.0	86.6	83.6	85.2	81.2	86.4	83.2	7549	86.2
2004	7883.0	890.0	99.5	84.6	99.5	82.3	100.8	84.3	8784	100.0
2005	6710.0	890.0	85.5	84.7	85.1	82.5	86.1	84.4	7656	87.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		299			143	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	804			979	4	
D. Inspection, maintenance or repair without refuelling				5		
E. Testing of plant systems or components	1			0		
J. Grid failure or grid unavailability						60
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	2
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						6
Subtotal	805	299	0	984	150	68
Total	1104			1202		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	55	16
13. Reactor Auxiliary Systems		6
15. Reactor Cooling Systems		35
16. Steam generation systems		2
31. Turbine and auxiliaries		26
32. Feedwater and Main Steam System		8
35. All other I&C Systems		7
41. Main Generator Systems	244	33
42. Electrical Power Supply Systems		7
Total	299	140

CZ-4 DUKOVANY-1

Operator: CEZ (CZECH POWER COMPANY , CEZ a.s.)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 412.0 MW(e)
 Design Net Capacity: 420.0 MW(e)
 Design Discharge Burnup: 44000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3324.5 GW(e).h
 Energy Availability Factor: 90.6%
 Load Factor: 92.1%
 Operating Factor: 91.5%
 Energy Unavailability Factor: 9.4%
 Total Off-line Time: 745 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	312.2	285.3	314.3	304.5	310.6	299.7	306.7	305.1	137.0	134.1	302.5	312.7	3324.5
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	99.8	98.8	46.6	42.8	100.0	100.0	90.6
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	52.9	42.8	100.0	100.0	91.3
LF (%)	101.8	103.1	102.5	102.8	101.3	101.0	100.1	99.5	46.2	43.7	102.0	102.0	92.1
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	100.0	100.0	53.2	45.2	100.0	100.0	91.5
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	53.4	57.2	0.0	0.0	9.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.1	57.2	0.0	0.0	8.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	6.3	0.0	0.0	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

SMOOTH OPERATION WITHOUT SIGNIFICANT EVENTS.

5. Historical Summary

Date of Construction Start: 01 Jan 1979 Lifetime Generation: 62527.4 GW(e).h
 Date of First Criticality: 12 Feb 1985 Cumulative Energy Availability Factor: 82.0%
 Date of Grid Connection: 24 Feb 1985 Cumulative Load Factor: 83.1%
 Date of Commercial Operation: 03 May 1985 Cumulative Unit Capability Factor: 82.9%
 Cumulative Energy Unavailability Factor: 18.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	1993.9	391.0	88.1	88.1	88.1	88.1	86.7	86.7	5178	88.1
1986	2658.4	403.0	76.1	80.9	76.1	80.8	75.3	79.8	7094	81.0
1987	2575.9	408.0	74.7	78.5	70.7	77.0	72.1	76.9	6867	78.4
1988	2524.0	408.0	74.2	77.3	71.5	75.5	70.4	75.1	6996	79.6
1989	2940.6	408.0	82.8	78.5	82.0	76.9	82.3	76.6	7579	86.5
1990	2965.6	408.0	84.3	79.5	82.5	77.9	83.0	77.8	7658	87.4
1991	2581.1	408.0	70.7	78.2	70.5	76.8	72.2	76.9	6751	77.1
1992	3172.8	408.0	80.9	78.6	80.5	77.3	88.5	78.5	7537	85.8
1993	3239.7	442.0	83.7	79.2	83.7	78.1	83.7	79.1	7649	87.3
1994	3278.5	442.0	84.6	79.8	84.6	78.8	84.7	79.7	7656	87.4
1995	2966.1	442.0	76.8	79.5	76.8	78.6	76.6	79.4	7022	80.2
1996	3144.6	412.0	86.0	80.0	85.4	79.2	86.9	80.0	7592	86.4
1997	3295.6	440.0	86.8	80.6	85.3	79.7	85.5	80.5	7678	87.6
1998	2973.4	412.0	85.4	81.0	82.6	79.9	82.4	80.6	7518	85.8
1999	2901.1	412.0	79.8	80.9	79.2	79.8	80.4	80.6	7034	80.3
2000	3327.9	412.0	89.8	81.4	89.7	80.5	92.0	81.3	7934	90.3
2001	3328.9	412.0	90.6	82.0	90.2	81.0	92.2	82.0	7996	91.3
2002	3267.5	412.0	89.6	82.4	88.9	81.5	90.5	82.5	7926	90.5
2003	3032.0	412.0	82.9	82.4	82.6	81.5	84.0	82.5	7261	82.9
2004	3035.5	412.0	83.6	82.5	82.9	81.6	83.9	82.6	7349	83.7
2005	3324.5	412.0	91.3	82.9	90.6	82.0	92.1	83.1	8015	91.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					62	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	745			1114		
D. Inspection, maintenance or repair without refuelling				129		
J. Grid failure or grid unavailability						6
L. Human factor related					0	
Subtotal	745	0	0	1243	62	6
Total	745			1311		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		5
14. Safety Systems		6
15. Reactor Cooling Systems		23
31. Turbine and auxiliaries		4
41. Main Generator Systems		0
42. Electrical Power Supply Systems		23
Total	0	61

CZ-5 DUKOVANY-2

Operator: CEZ (CZECH POWER COMPANY , CEZ a.s.)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 412.0 MW(e)
 Design Net Capacity: 420.0 MW(e)
 Design Discharge Burnup: 44000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3313.2 GW(e).h
 Energy Availability Factor: 90.8%
 Load Factor: 91.8%
 Operating Factor: 91.9%
 Energy Unavailability Factor: 9.2%
 Total Off-line Time: 712 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	313.6	283.3	312.2	298.2	116.0	164.0	304.1	306.0	297.5	309.3	300.9	308.2	3313.2
EAF (%)	100.0	100.0	100.0	99.4	38.1	55.5	99.2	99.6	99.7	100.0	99.6	98.6	90.8
UCF (%)	100.0	100.0	100.0	100.0	41.6	55.8	100.0	100.0	100.0	100.0	99.6	98.6	91.3
LF (%)	102.3	102.3	101.8	100.7	37.8	55.3	99.2	99.8	100.3	100.8	101.4	100.5	91.8
OF (%)	100.0	100.0	99.9	100.1	41.8	61.3	100.0	100.0	100.0	100.0	100.0	100.0	91.9
EUF (%)	0.0	0.0	0.0	0.6	61.9	44.5	0.8	0.4	0.3	0.0	0.4	1.4	9.2
PUF (%)	0.0	0.0	0.0	0.0	58.4	40.6	0.0	0.0	0.0	0.0	0.0	0.0	8.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.4	1.4	0.4
XUF (%)	0.0	0.0	0.0	0.6	3.5	0.4	0.8	0.4	0.3	0.0	0.0	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1979
 Date of First Criticality: 23 Jan 1986
 Date of Grid Connection: 30 Jan 1986
 Date of Commercial Operation: 21 Mar 1986

Lifetime Generation: 60685.2 GW(e).h
 Cumulative Energy Availability Factor: 82.6%
 Cumulative Load Factor: 83.7%
 Cumulative Unit Capability Factor: 83.5%
 Cumulative Energy Unavailability Factor: 17.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	2693.7	408.0	94.4	94.4	94.4	94.4	89.9	89.9	6906	94.0
1987	2668.6	408.0	76.6	84.7	71.6	82.0	74.7	81.6	6997	79.9
1988	2771.3	408.0	74.9	81.2	74.6	79.4	77.3	80.1	6963	79.3
1989	3011.0	408.0	82.7	81.6	82.2	80.1	84.2	81.2	7713	88.0
1990	2822.7	408.0	80.1	81.3	76.5	79.4	79.0	80.7	7566	86.4
1991	2901.4	408.0	81.6	81.3	81.2	79.7	81.2	80.8	7600	86.8
1992	2830.6	408.0	71.6	79.9	71.4	78.5	79.0	80.5	6551	74.6
1993	3256.9	440.0	84.2	80.5	84.2	79.2	84.5	81.1	7496	85.6
1994	3094.3	440.0	80.8	80.5	79.6	79.3	80.3	81.0	7315	83.5
1995	3263.3	440.0	85.5	81.1	84.3	79.8	84.7	81.4	7720	88.1
1996	2831.0	412.0	78.3	80.8	77.3	79.6	78.2	81.1	6917	78.7
1997	3144.8	440.0	81.1	80.8	81.1	79.7	81.6	81.1	7179	82.0
1998	3209.2	412.0	88.2	81.4	87.7	80.3	88.9	81.7	7803	89.1
1999	3198.1	412.0	88.4	81.9	87.8	80.9	88.6	82.2	7812	89.2
2000	2954.1	412.0	81.8	81.9	81.2	80.9	81.6	82.2	7223	82.2
2001	3121.1	412.0	86.9	82.2	86.4	81.2	86.5	82.4	7646	87.3
2002	3159.6	412.0	88.3	82.6	87.8	81.6	87.5	82.7	7716	88.1
2003	3252.6	412.0	89.8	83.0	89.2	82.0	90.1	83.2	7939	90.6
2004	3087.7	412.0	84.4	83.0	84.2	82.2	85.3	83.3	7439	84.7
2005	3313.2	412.0	91.3	83.5	90.8	82.6	91.8	83.7	8048	91.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					49	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	712			1103		
D. Inspection, maintenance or repair without refuelling				91		
J. Grid failure or grid unavailability					1	3
L. Human factor related					0	
Subtotal	712	0	0	1194	63	3
Total	712			1260		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		8
15. Reactor Cooling Systems		5
16. Steam generation systems		6
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		19
42. Electrical Power Supply Systems		4
XX. Miscellaneous Systems		0
Total	0	44

CZ-8 DUKOVANY-3

Operator: CEZ (CZECH POWER COMPANY , CEZ a.s.)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 412.0 MW(e)
Design Net Capacity: 420.0 MW(e)
Design Discharge Burnup: 44000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2964.9 GW(e).h
Energy Availability Factor: 79.6%
Load Factor: 80.2%
Operating Factor: 80.3%
Energy Unavailability Factor: 20.4%
Total Off-line Time: 1726 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	310.1	173.7	0.0	1.7	304.5	302.5	311.8	304.0	295.8	321.5	313.5	325.9	2964.9
EAF (%)	99.6	62.5	0.1	1.9	95.1	97.7	98.4	95.6	95.9	99.9	100.0	100.0	79.6
UCF (%)	99.6	63.9	0.1	1.9	95.2	98.4	100.0	96.5	96.6	100.0	100.0	100.0	80.0
LF (%)	101.2	62.7	0.0	0.6	95.8	98.4	98.1	95.7	96.2	101.1	102.0	102.6	80.2
OF (%)	100.0	64.4	0.0	2.8	100.0	100.0	100.0	96.9	97.1	100.0	100.0	100.0	80.3
EUF (%)	0.4	37.5	99.9	98.1	4.9	2.3	1.6	4.4	4.1	0.1	0.0	0.0	20.4
PUF (%)	0.4	36.1	99.9	98.1	4.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	19.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	1.2	0.0	3.5	3.4	0.0	0.0	0.0	0.7
XUF (%)	0.0	1.4	0.0	0.0	0.2	0.7	1.6	0.9	0.7	0.1	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE REFERENCE UNIT POWER WAS INCREASED FROM 412 TO 427 MW - DATE OF THE CHANGE 1.5.2005. THE TURBINE HAS BEEN MODERNIZED AND THE EFFICIENCY OF THE TURBINE HAS BEEN INCREASED.

5. Historical Summary

Date of Construction Start: 01 Mar 1979 **Lifetime Generation:** 58288.4 GW(e).h
Date of First Criticality: 28 Oct 1986 **Cumulative Energy Availability Factor:** 81.6%
Date of Grid Connection: 14 Nov 1986 **Cumulative Load Factor:** 83.1%
Date of Commercial Operation: 20 Dec 1986 **Cumulative Unit Capability Factor:** 83.5%
Cumulative Energy Unavailability Factor: 18.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	253.0	388.0	100.0	100.0	100.0	100.0	87.6	87.6	744	100.0
1987	3109.9	408.0	86.4	87.4	84.3	85.5	87.0	87.1	7644	87.3
1988	2988.9	408.0	81.4	84.5	80.0	82.8	83.4	85.3	7672	87.3
1989	2685.7	408.0	71.4	80.3	71.0	79.0	75.1	82.0	6678	76.2
1990	2982.0	408.0	85.0	81.4	80.3	79.3	83.4	82.4	7763	88.6
1991	2987.0	408.0	81.6	81.4	81.3	79.7	83.6	82.6	7784	88.9
1992	2917.9	408.0	72.6	80.0	72.3	78.5	81.4	82.4	6678	76.0
1993	3190.5	452.0	80.5	80.1	80.5	78.8	80.6	82.1	7259	82.9
1994	3343.9	452.0	84.5	80.7	84.5	79.6	84.5	82.4	7870	89.8
1995	2689.6	452.0	87.4	81.4	70.2	78.4	67.9	80.7	7788	88.9
1996	2871.2	412.0	80.4	81.3	78.3	78.4	79.3	80.6	7114	81.0
1997	2904.6	440.0	75.5	80.8	74.9	78.1	75.4	80.1	6774	77.3
1998	3090.1	412.0	85.7	81.2	85.0	78.7	85.6	80.5	7564	86.3
1999	3246.2	412.0	89.9	81.8	89.3	79.5	89.9	81.2	7849	89.6
2000	3187.9	412.0	88.7	82.3	87.4	80.0	88.1	81.7	7776	88.5
2001	3006.0	412.0	83.8	82.4	82.7	80.2	83.3	81.8	7309	83.4
2002	3259.4	412.0	89.9	82.9	89.6	80.8	90.3	82.3	7880	90.0
2003	3280.1	412.0	90.5	83.3	89.8	81.3	90.9	82.8	7934	90.6
2004	3302.5	412.0	90.3	83.7	90.2	81.8	91.2	83.3	7957	90.6
2005	2964.9	427.0	80.0	83.5	79.6	81.6	80.2	83.1	7034	80.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		44			95	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	1682			1065		
D. Inspection, maintenance or repair without refuelling				34		
J. Grid failure or grid unavailability						4
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					9	
Subtotal	1682	44	0	1099	109	4
Total		1726			1212	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	44	
15. Reactor Cooling Systems		39
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		3
35. All other I&C Systems		0
41. Main Generator Systems		42
42. Electrical Power Supply Systems		3
Total	44	91

CZ-9 DUKOVANY-4

Operator: CEZ (CZECH POWER COMPANY , CEZ a.s.)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 412.0 MW(e)
 Design Net Capacity: 420.0 MW(e)
 Design Discharge Burnup: 44000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3267.0 GW(e).h
 Energy Availability Factor: 89.6%
 Load Factor: 90.5%
 Operating Factor: 91.4%
 Energy Unavailability Factor: 10.4%
 Total Off-line Time: 752 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	312.3	281.7	311.8	299.7	307.5	296.5	306.3	288.3	292.3	255.3	6.3	309.0	3267.0
EAF (%)	100.0	100.0	100.0	99.7	99.7	99.7	99.6	93.4	97.9	83.5	2.4	98.7	89.6
UCF (%)	100.0	100.0	100.0	99.7	100.0	100.0	100.0	93.6	98.1	89.8	2.5	98.7	90.3
LF (%)	101.9	101.8	101.7	101.2	100.3	100.0	99.9	94.1	98.5	83.2	2.1	100.8	90.5
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	100.0	100.0	100.0	90.1	5.8	100.0	91.4
EUF (%)	0.0	0.0	0.0	0.3	0.3	0.3	0.4	6.6	2.1	16.5	97.6	1.3	10.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	96.5	0.4	8.8
UCLF (%)	0.0	0.0	0.0	0.3	0.0	0.0	0.0	6.4	2.0	0.0	1.0	1.0	0.9
XUF (%)	0.0	0.0	0.0	0.0	0.3	0.3	0.4	0.2	0.2	6.3	0.0	0.0	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Mar 1979 Lifetime Generation: 57642.1 GW(e).h
 Date of First Criticality: 01 Jun 1987 Cumulative Energy Availability Factor: 83.0%
 Date of Grid Connection: 11 Jun 1987 Cumulative Load Factor: 84.9%
 Date of Commercial Operation: 19 Jul 1987 Cumulative Unit Capability Factor: 84.0%
 Cumulative Energy Unavailability Factor: 17.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	1596.5	408.0	99.9	99.9	98.2	98.2	88.6	88.6	4117	93.2
1988	2764.0	408.0	74.5	83.0	73.8	82.0	77.1	81.0	7092	80.7
1989	2984.5	408.0	80.8	82.1	80.4	81.3	83.5	82.0	7314	83.5
1990	2995.3	408.0	82.8	82.3	80.0	80.9	83.8	82.5	7836	89.5
1991	2672.0	408.0	78.0	81.3	77.9	80.3	74.8	80.8	7301	83.3
1992	3328.4	408.0	84.5	81.9	83.7	80.9	92.9	83.0	7614	86.7
1993	2939.8	448.0	62.1	78.6	62.1	77.8	74.9	81.6	6859	78.3
1994	3259.8	448.0	84.5	79.5	83.1	78.5	83.1	81.8	7538	86.1
1995	3311.1	448.0	85.5	80.2	85.4	79.4	84.4	82.2	7712	88.0
1996	3202.1	412.0	88.2	81.0	87.1	80.2	88.5	82.8	7762	88.4
1997	3149.2	440.0	80.9	81.0	80.9	80.2	81.7	82.7	7202	82.2
1998	3078.6	412.0	85.7	81.4	83.8	80.6	85.3	82.9	7536	86.0
1999	3179.4	412.0	88.6	82.0	86.6	81.0	88.1	83.3	7792	88.9
2000	3234.5	412.0	89.5	82.5	88.1	81.5	89.4	83.8	7839	89.2
2001	3258.1	412.0	90.4	83.1	89.2	82.1	90.3	84.2	7946	90.7
2002	2748.2	412.0	77.3	82.7	75.6	81.7	76.1	83.7	6745	77.0
2003	3309.8	412.0	91.4	83.2	90.7	82.2	91.7	84.2	8009	91.4
2004	3335.4	412.0	91.1	83.6	90.9	82.7	92.2	84.6	8029	91.4
2005	3267.0	412.0	90.3	84.0	89.6	83.0	90.5	84.9	8008	91.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					25	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	752			918		
D. Inspection, maintenance or repair without refuelling				97		
J. Grid failure or grid unavailability					3	1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						5
Subtotal	752	0	0	1015	29	6
Total		752			1050	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		7
15. Reactor Cooling Systems		9
32. Feedwater and Main Steam System		5
33. Circulating Water System		0
35. All other I&C Systems		2
42. Electrical Power Supply Systems		1
Total	0	24

CZ-23 TEMELIN-1

Operator: CEZ (CZECH POWER COMPANY , CEZ a.s.)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 892.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5444.0 GW(e).h
Energy Availability Factor: 66.3%
Load Factor: 66.4%
Operating Factor: 66.7%
Energy Unavailability Factor: 33.7%
Total Off-line Time: 2914 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	714.5	648.6	631.2	69.4	691.8	602.4	643.6	0.0	0.0	455.3	630.9	356.3	5444.0
EAF (%)	100.0	100.0	88.2	10.4	100.0	90.2	93.0	0.5	0.5	67.0	94.2	51.6	66.3
UCF (%)	100.0	100.0	88.2	10.4	100.0	90.2	93.5	0.5	0.5	67.0	94.2	51.6	66.3
LF (%)	101.1	101.6	89.3	10.2	100.0	90.0	93.0	0.0	0.0	65.7	94.2	51.5	66.4
OF (%)	100.0	100.0	88.6	11.0	100.0	90.7	93.5	0.0	0.0	71.1	94.9	51.9	66.7
EUF (%)	0.0	0.0	11.8	89.6	0.0	9.8	7.0	99.5	99.5	33.0	5.8	48.4	33.7
PUF (%)	0.0	0.0	4.6	0.0	0.0	0.0	6.6	99.5	39.8	4.3	5.8	0.0	13.4
UCLF (%)	0.0	0.0	7.2	89.6	0.0	9.8	0.0	0.0	59.7	28.7	0.0	48.4	20.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

REFERENCE UNIT POWER - DATE OF THE CHANGE 28.4.2005 (ON THE BASIC OF MANUFACTUR'S SUGGESTIONS)

5. Historical Summary

Date of Construction Start: 01 Feb 1987 **Lifetime Generation:** 16615.1 GW(e).h
Date of First Criticality: 11 Oct 2000 **Cumulative Energy Availability Factor:** 66.6%
Date of Grid Connection: 21 Dec 2000 **Cumulative Load Factor:** 67.7%
Date of Commercial Operation: 10 Jun 2002 **Cumulative Unit Capability Factor:** 66.6%
Cumulative Energy Unavailability Factor: 33.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002	Data not provided									
2003	5455.3	912.0	65.3	65.3	65.3	65.3	68.3	68.3	5861	66.9
2004	5715.8	950.0	68.1	66.7	68.0	66.7	68.5	68.4	6029	68.6
2005	5444.0	930.0	66.3	66.6	66.3	66.6	66.4	67.7	5846	66.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2003 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1766			294	
C. Inspection, maintenance or repair combined with refuelling	1080			1328		
D. Inspection, maintenance or repair without refuelling				62		
E. Testing of plant systems or components	68			199		
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)						
Subtotal	1148	1766	0	1589	294	0
Total		2914			1883	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2003 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	647	5
12. Reactor I&C Systems		9
15. Reactor Cooling Systems	358	4
21. Fuel Handling and Storage Facilities		54
31. Turbine and auxiliaries	694	14
32. Feedwater and Main Steam System		22
33. Circulating Water System		13
41. Main Generator Systems	67	166
42. Electrical Power Supply Systems		4
Total	1766	291

CZ-24 TEMELIN-2

Operator: CEZ (CZECH POWER COMPANY , CEZ a.s.)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 892.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4941.4 GW(e).h
Energy Availability Factor: 65.1%
Load Factor: 65.3%
Operating Factor: 70.0%
Energy Unavailability Factor: 34.9%
Total Off-line Time: 2625 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	589.2	613.9	665.2	167.7	0.0	0.0	214.9	517.3	509.8	576.8	509.0	577.6	4941.4
EAF (%)	82.6	95.0	94.2	24.9	0.0	0.0	38.4	89.5	90.7	97.8	90.7	98.7	65.1
UCF (%)	82.6	95.0	94.3	26.4	0.0	0.0	38.4	89.6	90.7	97.8	90.7	98.7	65.3
LF (%)	83.4	96.2	94.1	24.6	0.0	0.0	37.0	89.1	90.8	99.3	90.6	99.5	65.3
OF (%)	84.3	96.6	96.0	26.3	0.0	0.0	42.6	100.0	95.3	100.0	100.0	100.0	70.0
EUF (%)	17.4	5.0	5.8	75.1	100.0	100.0	61.6	10.5	9.3	2.2	9.3	1.3	34.9
PUF (%)	0.0	4.3	4.9	73.6	100.0	83.3	2.3	0.0	0.0	0.0	0.0	0.5	24.5
UCLF (%)	17.4	0.7	0.8	0.0	0.0	16.7	59.3	10.5	9.3	2.2	9.3	0.8	10.2
XUF (%)	0.0	0.0	0.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

REFERENCE UNIT POWER - DATE OF THE CHANGE 17.7.2005 (ON THE BASIC OF MANUFACTUR'S SUGGESTIONS - CLAIM PREVENTION ON TG)

5. Historical Summary

Date of Construction Start: 01 Feb 1987 **Lifetime Generation:** 11281.4 GW(e).h
Date of First Criticality: 31 May 2002 **Cumulative Energy Availability Factor:** 70.4%
Date of Grid Connection: 29 Dec 2002 **Cumulative Load Factor:** 70.9%
Date of Commercial Operation: 18 Apr 2003 **Cumulative Unit Capability Factor:** 70.5%
Cumulative Energy Unavailability Factor: 29.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2003			Data not provided							
2004	6340.1	950.0	75.2	75.2	75.2	75.2	76.0	76.0	6678	76.0
2005	4941.4	780.0	65.3	70.5	65.1	70.4	65.3	70.9	6135	70.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2004 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		136			288	
C. Inspection, maintenance or repair combined with refuelling	1872			712		
D. Inspection, maintenance or repair without refuelling				52		
E. Testing of plant systems or components	52	26				
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			3			
L. Human factor related		536				
Subtotal	1924	698	3	764	288	0
Total		2625			1052	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2004 to 2005 Average Hours Lost Per Year
31. Turbine and auxiliaries	34	73
32. Feedwater and Main Steam System	27	11
41. Main Generator Systems	75	
42. Electrical Power Supply Systems		203
Total	136	287

FI-1 LOVIISA-1

Operator: FORTUMPH (FORTUM POWER AND HEAT OY (former IVO))

Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 488.0 MW(e)
Design Net Capacity: 420.0 MW(e)
Design Discharge Burnup: 38000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4062.4 GW(e).h
Energy Availability Factor: 94.6%
Load Factor: 95.0%
Operating Factor: 95.3%
Energy Unavailability Factor: 5.4%
Total Off-line Time: 409 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	369.0	334.0	369.1	346.2	366.8	355.5	319.2	163.5	348.6	364.7	355.8	370.0	4062.4
EAF (%)	100.0	100.0	100.0	96.9	100.0	100.0	89.9	49.6	100.0	100.0	100.0	100.0	94.6
UCF (%)	100.0	100.0	100.0	96.9	100.0	100.0	94.8	49.6	100.0	100.0	100.0	100.0	95.0
LF (%)	101.6	101.9	101.7	98.7	101.0	101.2	87.9	45.0	99.2	100.3	101.3	101.9	95.0
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	95.0	50.0	100.0	100.0	100.0	100.0	95.3
EUF (%)	0.0	0.0	0.0	3.1	0.0	0.0	10.1	50.4	0.0	0.0	0.0	0.0	5.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	5.1	50.4	0.0	0.0	0.0	0.0	4.7
UCLF (%)	0.0	0.0	0.0	3.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PLANNED ENERGY LOSSES: ANNUAL TESTING OF MAIN STEAM SAFETY VALVES (20050709), ANNUAL MAINTENANCE AND REFUELLING (20050730-20050816). UNPLANNED ENERGY LOSSES: TURBINE TRIP DUE TO SHORTAGE TO GROUND, FAULT OF PROTECTION SYSTEM (20050416), TRIP OF ONE PCP (20050426), HIGH PRESSURE PREHEATER NOT AVAILABLE DUE TO VALVE REPAIR (20050621-20050622), PCP-TRIPS DURING TESTING (20050726). OTHER ENERGY LOSSES: STRETCH-OUT (20050706-20050730).

5. Historical Summary

Date of Construction Start:	01 May 1971	Lifetime Generation:	98325.2 GW(e).h
Date of First Criticality:	21 Jan 1977	Cumulative Energy Availability Factor:	86.3%
Date of Grid Connection:	08 Feb 1977	Cumulative Load Factor:	85.8%
Date of Commercial Operation:	09 May 1977	Cumulative Unit Capability Factor:	86.8%
		Cumulative Energy Unavailability Factor:	13.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	2118.6	430.0	83.8	83.8	83.8	83.8	83.8	83.8	5591	95.1
1978	2975.8	430.0	78.9	80.9	78.9	80.9	79.0	80.9	7531	86.0
1979	2901.7	405.0	81.8	81.2	81.8	81.2	81.8	81.2	7404	84.5
1980	1407.8	445.0	36.6	68.5	36.6	68.5	36.0	68.4	3482	39.6
1981	3105.1	440.0	81.9	71.5	81.9	71.5	80.6	71.0	7642	87.2
1982	3245.4	440.0	84.2	73.8	84.2	73.8	84.2	73.4	7576	86.5
1983	3337.4	445.0	86.7	75.7	86.7	75.7	85.6	75.3	7982	91.1
1984	3343.9	445.0	86.2	77.1	85.8	77.1	85.5	76.7	7653	87.1
1985	3600.0	440.0	92.5	78.9	92.5	78.9	93.4	78.6	8248	94.2
1986	3522.4	445.0	91.1	80.2	91.1	80.2	90.4	79.8	8093	92.4
1987	3600.4	445.0	94.6	81.6	94.6	81.5	92.4	81.0	8257	94.3
1988	3354.6	445.0	87.0	82.1	87.0	82.0	85.8	81.5	7678	87.4
1989	3575.7	445.0	92.8	82.9	92.6	82.9	91.7	82.3	8183	93.4
1990	3271.1	445.0	85.5	83.1	85.5	83.1	83.9	82.4	7605	86.8
1991	3360.9	445.0	88.8	83.5	88.6	83.4	86.2	82.7	7927	90.5
1992	3108.4	445.0	80.6	83.3	80.2	83.2	79.5	82.5	7186	81.8
1993	3443.2	445.0	89.5	83.7	89.5	83.6	88.4	82.8	8052	92.0
1994	3497.6	445.0	90.8	84.1	90.7	84.0	89.7	83.2	8017	91.5
1995	3389.1	445.0	88.5	84.3	87.7	84.2	86.9	83.4	7834	89.4
1996	3203.5	445.0	82.5	84.2	82.0	84.1	82.0	83.3	7281	82.9
1997	3794.8	445.0	93.9	84.7	93.0	84.5	97.3	84.0	8309	94.9
1998	3852.4	488.0	93.4	85.1	91.3	84.9	90.1	84.3	8234	94.0
1999	3883.3	488.0	92.4	85.5	91.6	85.2	90.8	84.6	8304	94.8
2000	3618.0	488.0	86.5	85.5	84.9	85.2	84.4	84.6	7720	87.9
2001	3921.0	488.0	93.4	85.9	92.4	85.5	91.7	84.9	8233	94.0
2002	3790.1	488.0	91.4	86.1	89.3	85.7	88.7	85.1	8095	92.4
2003	3939.0	488.0	93.2	86.4	92.4	85.9	92.1	85.4	8194	93.5
2004	3715.0	488.0	86.9	86.4	86.5	86.0	86.7	85.4	7647	87.0
2005	4062.4	488.0	95.0	86.8	94.6	86.3	95.0	85.8	8351	95.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					236	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	478			731		
D. Inspection, maintenance or repair without refuelling				20		
E. Testing of plant systems or components				2		
H. Nuclear regulatory requirements				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	2	5
Z. Others					4	
Subtotal	478	0	0	753	243	5
Total	478			1001		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		15
14. Safety Systems		4
15. Reactor Cooling Systems		180
16. Steam generation systems		3
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		19
32. Feedwater and Main Steam System		8
42. Electrical Power Supply Systems		1
Total	0	230

FI-2 LOVIISA-2

Operator: FORTUMPH (FORTUM POWER AND HEAT OY (former IVO))

Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 488.0 MW(e)
Design Net Capacity: 420.0 MW(e)
Design Discharge Burnup: 38000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4076.1 GW(e).h
Energy Availability Factor: 94.5%
Load Factor: 95.4%
Operating Factor: 95.6%
Energy Unavailability Factor: 5.5%
Total Off-line Time: 384 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	370.8	334.2	370.0	357.8	368.0	354.8	352.3	191.5	283.2	366.5	356.8	370.2	4076.1
EAF (%)	100.0	100.0	100.0	100.0	100.0	99.9	98.1	56.1	81.1	100.0	100.0	100.0	94.5
UCF (%)	100.0	100.0	100.0	100.0	100.0	99.9	99.8	63.9	81.1	100.0	100.0	100.0	95.4
LF (%)	102.1	101.9	101.9	102.0	101.4	101.0	97.0	52.8	80.6	100.8	101.5	102.0	95.4
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	100.0	62.8	85.1	100.0	100.0	100.0	95.6
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	1.9	43.9	18.9	0.0	0.0	0.0	5.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	36.1	17.1	0.0	0.0	0.0	4.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.8	0.0	0.0	0.0	0.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.7	7.8	0.0	0.0	0.0	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PLANNED ENERGY LOSSES: ANNUAL TESTING OF MAIN STEAM SAFETY VALVES (20050723), ANNUAL MAINTENANCE AND REFUELLING (20050820-20050905). UNPLANNED ENERGY LOSSES: TRIP OF ONE PCP (20050616), REPAIRING OF SEAWATER PUMP (20050906-20050909). OTHER ENERGY LOSSES: STRETCH-OUT (20050717-20050820).

5. Historical Summary

Date of Construction Start:	01 Aug 1972	Lifetime Generation:	88537.0 GW(e).h
Date of First Criticality:	17 Oct 1980	Cumulative Energy Availability Factor:	88.2%
Date of Grid Connection:	04 Nov 1980	Cumulative Load Factor:	87.9%
Date of Commercial Operation:	05 Jan 1981	Cumulative Unit Capability Factor:	88.9%
		Cumulative Energy Unavailability Factor:	11.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	2714.2	440.0	72.2	72.2	72.2	72.2	70.4	70.4	7062	80.6
1982	2997.4	440.0	78.0	75.1	78.0	75.1	77.8	74.1	7046	80.4
1983	3474.5	445.0	90.1	80.1	90.1	80.1	89.1	79.1	8063	92.0
1984	3608.6	445.0	93.2	83.4	92.6	83.3	92.3	82.5	8251	93.9
1985	3549.8	440.0	92.2	85.2	92.2	85.0	92.1	84.4	8162	93.2
1986	3174.9	445.0	81.5	84.5	81.5	84.4	81.4	83.9	7273	83.0
1987	3572.1	445.0	93.4	85.8	93.4	85.7	91.6	85.0	8242	94.1
1988	3602.3	445.0	94.7	86.9	94.7	86.8	92.2	85.9	8305	94.5
1989	3551.0	445.0	91.8	87.5	91.7	87.4	91.1	86.5	8128	92.8
1990	3251.1	445.0	85.3	87.2	85.3	87.2	83.4	86.2	7584	86.6
1991	3442.2	445.0	89.9	87.5	89.0	87.3	88.3	86.4	7941	90.7
1992	3468.4	445.0	89.5	87.7	89.1	87.5	88.7	86.6	7931	90.3
1993	3550.8	445.0	91.3	87.9	91.2	87.8	91.2	86.9	8050	92.0
1994	3124.7	445.0	81.2	87.5	80.5	87.3	80.2	86.4	7170	81.8
1995	3060.3	445.0	78.4	86.8	77.6	86.6	78.5	85.9	7064	80.6
1996	3621.3	445.0	93.1	87.2	92.7	87.0	92.6	86.3	8227	93.7
1997	3804.7	445.0	92.9	87.6	92.0	87.3	97.6	87.0	8267	94.4
1998	3687.9	488.0	88.6	87.6	86.4	87.2	86.3	86.9	7892	90.1
1999	3974.3	488.0	94.2	88.0	93.5	87.6	93.0	87.3	8281	94.5
2000	3885.1	488.0	94.1	88.3	90.9	87.8	90.6	87.5	8314	94.6
2001	3781.1	488.0	92.3	88.5	89.6	87.9	88.4	87.5	8149	93.0
2002	3498.7	488.0	84.5	88.3	82.6	87.6	81.8	87.2	7463	85.2
2003	3736.7	488.0	90.1	88.4	90.0	87.7	87.4	87.3	8358	95.4
2004	4009.2	488.0	93.6	88.7	93.1	88.0	93.5	87.5	8231	93.7
2005	4076.1	488.0	95.4	88.9	94.5	88.2	95.4	87.9	8376	95.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					103	
C. Inspection, maintenance or repair combined with refuelling	384			655		
D. Inspection, maintenance or repair without refuelling				46		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				2	2	
Subtotal	384	0	0	703	105	0
Total		384			808	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
14. Safety Systems		6
15. Reactor Cooling Systems		46
16. Steam generation systems		2
21. Fuel Handling and Storage Facilities		15
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		17
41. Main Generator Systems		0
XX. Miscellaneous Systems		0
Total	0	93

FI-3 OLKILUOTO-1

Operator: TVO (TEOLLISUUDEN VOIMA OY)

Contractor: ASEASTAL (ASEA-ATOM / STAL-LAVAL)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 840.0 MW(e)
Design Net Capacity: 660.0 MW(e)
Design Discharge Burnup: 37000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7221.1 GW(e).h
Energy Availability Factor: 97.7%
Load Factor: 98.1%
Operating Factor: 98.0%
Energy Unavailability Factor: 2.3%
Total Off-line Time: 172 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	632.0	572.5	630.9	611.4	624.1	442.5	618.1	614.6	599.0	629.4	611.8	634.9	7221.1
EAF (%)	99.7	100.0	99.7	100.0	99.5	74.1	100.0	100.0	99.6	100.0	99.9	100.0	97.7
UCF (%)	99.7	100.0	99.7	100.0	99.9	75.0	100.0	100.0	99.6	100.0	99.9	100.0	97.8
LF (%)	101.1	101.4	100.9	101.2	99.9	73.2	98.9	98.3	99.0	100.6	101.2	101.6	98.1
OF (%)	100.0	100.0	99.9	100.1	100.0	76.1	100.0	100.0	100.0	100.0	100.0	100.0	98.0
EUF (%)	0.3	0.0	0.3	0.0	0.5	25.9	0.0	0.0	0.4	0.0	0.1	0.0	2.3
PUF (%)	0.2	0.0	0.2	0.0	0.0	25.0	0.0	0.0	0.4	0.0	0.1	0.0	2.1
UCLF (%)	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE

5. Historical Summary

Date of Construction Start: 01 Feb 1974
Date of First Criticality: 21 Jul 1978
Date of Grid Connection: 02 Sep 1978
Date of Commercial Operation: 10 Oct 1979

Lifetime Generation: 159242.0 GW(e).h
Cumulative Energy Availability Factor: 92.2%
Cumulative Load Factor: 91.7%
Cumulative Unit Capability Factor: 92.5%
Cumulative Energy Unavailability Factor: 7.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	1265.2	660.0	86.9	86.9	86.9	86.9	86.8	86.8	1996	90.4
1980	4280.8	658.0	76.3	78.4	76.3	78.4	74.1	76.6	6849	78.0
1981	4549.2	660.0	80.8	79.5	80.8	79.5	78.7	77.5	7353	83.9
1982	4997.5	658.0	86.7	81.7	86.7	81.7	86.7	80.4	7903	90.2
1983	4808.3	678.0	81.9	81.7	81.9	81.7	82.0	80.7	7651	87.3
1984	5505.6	710.0	91.9	83.8	91.9	83.8	90.3	82.6	8247	93.9
1985	5414.5	710.0	88.8	84.6	88.8	84.6	87.1	83.4	8180	93.4
1986	5463.2	710.0	90.1	85.4	90.1	85.4	87.8	84.0	8008	91.4
1987	5636.5	710.0	92.1	86.2	92.1	86.2	90.6	84.9	8142	92.9
1988	5778.9	710.0	94.3	87.1	94.1	87.1	92.7	85.7	8248	93.9
1989	5056.2	710.0	83.2	86.7	83.2	86.7	81.3	85.3	7278	83.1
1990	5857.3	710.0	95.6	87.5	95.6	87.5	94.2	86.1	8356	95.4
1991	5873.2	710.0	95.7	88.2	94.9	88.1	94.4	86.8	8373	95.6
1992	5803.0	710.0	93.7	88.7	93.2	88.5	93.0	87.3	8251	93.9
1993	5944.9	710.0	95.8	89.2	95.3	89.0	95.6	87.9	8433	96.3
1994	5978.0	710.0	96.5	89.7	96.0	89.5	96.1	88.4	8485	96.9
1995	5931.5	710.0	96.1	90.1	95.5	89.9	95.4	88.9	8427	96.2
1996	5938.6	710.0	92.2	90.2	92.1	90.0	95.2	89.2	8212	93.5
1997	6374.2	790.0	93.9	90.4	93.8	90.2	94.2	89.5	8254	94.2
1998	6807.0	840.0	95.6	90.7	95.0	90.5	92.5	89.7	8384	95.7
1999	7111.8	840.0	97.2	91.1	96.4	90.9	96.6	90.1	8542	97.5
2000	7043.1	840.0	95.8	91.4	95.2	91.1	95.5	90.4	8448	96.2
2001	7163.8	840.0	97.6	91.7	97.2	91.4	97.4	90.8	8561	97.7
2002	6997.5	840.0	95.5	91.9	95.1	91.6	95.1	91.0	8377	95.6
2003	7127.4	840.0	97.1	92.1	96.5	91.8	96.9	91.3	8515	97.2
2004	7009.0	840.0	94.7	92.2	94.7	91.9	95.0	91.4	8329	94.8
2005	7221.1	840.0	97.8	92.5	97.7	92.2	98.1	91.7	8588	98.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					96	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	229			451		
D. Inspection, maintenance or repair without refuelling				20		
E. Testing of plant systems or components					6	
J. Grid failure or grid unavailability						4
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					50	0
Z. Others					2	
Subtotal	229	0	0	471	154	4
Total	229			629		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		8
12. Reactor I&C Systems		1
14. Safety Systems		5
15. Reactor Cooling Systems		13
31. Turbine and auxiliaries		22
32. Feedwater and Main Steam System		3
33. Circulating Water System		1
41. Main Generator Systems		40
42. Electrical Power Supply Systems		0
Total	0	93

FI-4 OLKILUOTO-2

Operator: TVO (TEOLLISUUDEN VOIMA OY)

Contractor: ASEASTAL (ASEA-ATOM / STAL-LAVAL)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 840.0 MW(e)
Design Net Capacity: 660.0 MW(e)
Design Discharge Burnup: 37000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6996.7 GW(e).h
Energy Availability Factor: 93.8%
Load Factor: 94.0%
Operating Factor: 94.2%
Energy Unavailability Factor: 6.2%
Total Off-line Time: 512 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	633.1	570.3	631.9	610.4	172.1	608.9	625.1	623.8	613.0	640.2	623.7	644.0	6996.7
EAF (%)	100.0	99.7	100.0	100.0	28.0	99.4	100.0	99.6	100.0	99.8	100.0	99.6	93.8
UCF (%)	100.0	99.7	100.0	100.0	28.1	99.4	100.0	99.7	100.0	99.8	100.0	99.6	93.8
LF (%)	101.3	101.0	101.1	101.1	27.5	100.7	97.7	97.5	99.0	99.9	100.7	100.7	94.0
OF (%)	100.0	100.0	99.9	100.1	31.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2
EUF (%)	0.0	0.3	0.0	0.0	72.0	0.6	0.0	0.4	0.0	0.2	0.0	0.4	6.2
PUF (%)	0.0	0.3	0.0	0.0	67.6	0.2	0.0	0.2	0.0	0.2	0.0	0.3	5.8
UCLF (%)	0.0	0.0	0.0	0.0	4.3	0.4	0.0	0.1	0.0	0.0	0.0	0.1	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE. AFTER ANNUAL OUTAGES REFERENCE POWER RAISE FROM 840 MW TO 860 MW DUE TO MODERNIZATION OF TURBINE PLANT. THE MAJOR MODIFICATION ARE: RENEWAL OF STEAM DRYER, MODIFICATION OF TURBINE AUTOMATION, MODIFICATION OF HP-TURBINE AND CHANGE REHEATERS FROM ONE STAGE TO TWO STAGE.

5. Historical Summary

Date of Construction Start: 01 Aug 1975
Date of First Criticality: 13 Oct 1979
Date of Grid Connection: 18 Feb 1980
Date of Commercial Operation: 10 Jul 1982

Lifetime Generation: 150250.0 GW(e).h
Cumulative Energy Availability Factor: 93.3%
Cumulative Load Factor: 92.8%
Cumulative Unit Capability Factor: 93.7%
Cumulative Energy Unavailability Factor: 6.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	2256.6	658.0	77.7	77.7	77.7	77.7	77.6	77.6	3513	79.5
1983	5087.2	657.0	86.7	83.7	86.7	83.7	88.4	84.8	8221	93.8
1984	5341.3	710.0	89.6	86.1	89.6	86.1	87.3	85.8	8031	91.4
1985	5415.8	710.0	88.2	86.7	88.2	86.7	87.1	86.2	7912	90.3
1986	5840.2	710.0	95.1	88.6	95.1	88.6	93.9	88.0	8437	96.3
1987	5725.0	710.0	93.7	89.6	93.7	89.6	92.0	88.7	8379	95.7
1988	5713.2	710.0	92.7	90.1	92.7	90.1	91.6	89.2	8220	93.6
1989	5827.0	710.0	94.9	90.7	94.9	90.7	93.7	89.8	8363	95.5
1990	5749.9	710.0	93.8	91.1	93.8	91.1	92.4	90.1	8265	94.3
1991	5731.0	710.0	93.7	91.4	93.0	91.3	92.1	90.3	8216	93.8
1992	5790.4	710.0	94.5	91.7	93.3	91.5	92.8	90.6	8306	94.6
1993	5861.6	710.0	95.1	92.0	94.4	91.7	94.2	90.9	8327	95.1
1994	5732.6	710.0	93.2	92.1	92.3	91.8	92.2	91.0	8130	92.8
1995	5747.2	710.0	93.7	92.2	92.5	91.8	92.4	91.1	8236	94.0
1996	5915.4	710.0	95.3	92.4	95.0	92.1	94.8	91.4	8413	95.8
1997	6077.0	775.0	94.6	92.6	93.7	92.2	94.1	91.5	8258	94.3
1998	6628.5	840.0	94.3	92.7	93.2	92.2	90.1	91.4	8207	93.7
1999	7091.2	840.0	96.9	93.0	96.4	92.5	96.4	91.8	8505	97.1
2000	7028.9	840.0	95.9	93.1	95.3	92.7	95.3	92.0	8457	96.3
2001	6988.0	840.0	95.1	93.3	95.1	92.8	95.0	92.2	8387	95.7
2002	7108.5	840.0	97.0	93.5	96.8	93.1	96.6	92.4	8472	96.7
2003	7026.9	840.0	95.5	93.6	95.2	93.2	95.5	92.6	8378	95.6
2004	7080.7	840.0	95.8	93.7	95.8	93.3	96.0	92.7	8485	96.6
2005	6996.7	860.0	93.8	93.7	93.8	93.3	94.0	92.8	8248	94.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		33			363	
B. Refuelling without a maintenance					11	
C. Inspection, maintenance or repair combined with refuelling	559			384		
D. Inspection, maintenance or repair without refuelling				17		
E. Testing of plant systems or components	6			26		
H. Nuclear regulatory requirements					1	
J. Grid failure or grid unavailability						13
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	4
Z. Others					2	
Subtotal	565	33	0	427	379	17
Total		598			823	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		9
12. Reactor I&C Systems		0
13. Reactor Auxiliary Systems		0
14. Safety Systems		3
15. Reactor Cooling Systems		12
31. Turbine and auxiliaries	29	2
32. Feedwater and Main Steam System	4	8
33. Circulating Water System		1
35. All other I&C Systems		1
41. Main Generator Systems		320
42. Electrical Power Supply Systems		4
XX. Miscellaneous Systems		0
Total	33	360

FR-54 BELLEVILLE-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1310.0 MW(e)
 Design Net Capacity: 1310.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10236.4 GW(e).h
 Energy Availability Factor: 97.1%
 Load Factor: 89.2%
 Operating Factor: 98.7%
 Energy Unavailability Factor: 2.9%
 Total Off-line Time: 115 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	874.7	856.5	854.3	881.3	852.7	798.8	838.7	768.7	827.8	921.5	853.5	908.0	10236.4
EAF (%)	97.6	100.0	95.8	99.7	99.4	99.3	99.4	93.8	97.1	98.6	91.7	93.2	97.1
UCF (%)	99.9	100.0	97.6	99.9	100.0	99.7	99.7	99.8	97.2	99.6	91.7	100.0	98.8
LF (%)	89.7	97.3	87.7	93.4	87.5	84.7	86.1	78.9	87.8	94.4	90.5	93.2	89.2
OF (%)	100.0	100.0	97.8	100.0	100.0	100.0	100.0	94.6	98.5	100.0	93.3	100.0	98.7
EUF (%)	2.4	0.0	4.2	0.3	0.6	0.7	0.6	6.2	2.9	1.4	8.3	6.8	2.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
UCLF (%)	0.1	0.0	2.4	0.0	0.0	0.3	0.4	0.2	2.6	0.4	8.3	0.0	1.2
XUF (%)	2.3	0.0	1.8	0.2	0.6	0.4	0.3	6.1	0.1	1.0	0.0	6.8	1.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 May 1980 Lifetime Generation: 143776.7 GW(e).h
 Date of First Criticality: 09 Sep 1987 Cumulative Energy Availability Factor: 76.3%
 Date of Grid Connection: 14 Oct 1987 Cumulative Load Factor: 69.6%
 Date of Commercial Operation: 01 Jun 1988 Cumulative Unit Capability Factor: 77.7%
 Cumulative Energy Unavailability Factor: 23.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	4334.0	1310.0	86.1	86.1	85.8	85.8	64.4	64.4	4421	86.1
1989	5152.6	1310.0	46.5	61.1	46.0	60.7	44.9	52.1	4244	48.4
1990	7914.3	1310.0	71.4	65.1	71.2	64.7	69.0	58.6	6408	73.2
1991	8660.2	1310.0	80.8	69.5	79.3	68.8	75.5	63.3	7092	81.0
1992	8494.3	1310.0	91.8	74.4	91.2	73.7	73.8	65.6	7600	86.5
1993	7921.5	1310.0	77.5	74.9	71.3	73.2	69.0	66.2	6873	78.5
1994	6575.8	1310.0	65.2	73.4	64.0	71.8	57.3	64.9	5848	66.8
1995	7740.9	1310.0	76.2	73.8	73.4	72.1	67.5	65.2	6796	77.6
1996	7365.1	1310.0	76.8	74.2	76.5	72.6	64.0	65.1	6002	68.3
1997	9785.3	1310.0	93.4	76.2	93.2	74.7	85.3	67.2	8294	94.7
1998	5740.9	1310.0	53.7	74.0	51.2	72.5	50.0	65.6	4865	55.5
1999	9580.5	1310.0	92.0	75.6	90.4	74.0	83.5	67.1	7957	90.8
2000	4238.6	1310.0	38.0	72.6	37.9	71.2	36.8	64.7	3459	39.4
2001	9564.5	1310.0	87.3	73.7	86.8	72.3	83.3	66.1	7774	88.7
2002	9567.3	1310.0	99.6	75.5	98.9	74.1	83.4	67.3	8447	96.4
2003	8401.7	1310.0	77.6	75.6	75.4	74.2	73.2	67.6	6871	78.4
2004	9291.0	1310.0	88.6	76.4	88.0	75.1	80.7	68.4	7645	87.0
2005	10236.4	1310.0	98.8	77.7	97.1	76.3	89.2	69.6	8646	98.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		181			468	
B. Refuelling without a maintenance					21	
C. Inspection, maintenance or repair combined with refuelling				1077	11	
D. Inspection, maintenance or repair without refuelling				10		
E. Testing of plant systems or components				67	4	0
H. Nuclear regulatory requirements					122	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					92	1
L. Human factor related		52				
Z. Others		1				
Subtotal	0	234	0	1154	718	1
Total		234			1873	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		29
12. Reactor I&C Systems		83
13. Reactor Auxiliary Systems		50
14. Safety Systems		40
15. Reactor Cooling Systems		46
16. Steam generation systems		9
21. Fuel Handling and Storage Facilities		2
31. Turbine and auxiliaries		11
32. Feedwater and Main Steam System	181	81
41. Main Generator Systems		50
42. Electrical Power Supply Systems		20
XX. Miscellaneous Systems		3
Total	181	424

FR-55 BELLEVILLE-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1310.0 MW(e)
 Design Net Capacity: 1310.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9242.3 GW(e).h
 Energy Availability Factor: 84.4%
 Load Factor: 80.5%
 Operating Factor: 88.7%
 Energy Unavailability Factor: 15.6%
 Total Off-line Time: 994 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	933.9	843.5	809.9	190.7	226.2	873.4	881.5	869.5	872.3	903.0	896.3	942.0	9242.3
EAF (%)	97.6	95.8	83.2	20.6	24.3	97.9	98.0	99.3	99.4	98.7	99.2	99.2	84.4
UCF (%)	97.6	100.0	99.4	26.8	24.3	99.8	98.6	99.7	99.9	98.9	99.2	99.2	86.9
LF (%)	95.8	95.8	83.1	20.2	23.2	92.6	90.4	89.2	92.5	92.5	95.0	96.7	80.5
OF (%)	97.4	100.0	99.9	27.1	39.8	100.0	99.9	100.0	100.0	100.0	100.0	100.0	88.7
EUF (%)	2.4	4.2	16.8	79.4	75.7	2.1	2.0	0.7	0.6	1.3	0.8	0.8	15.6
PUF (%)	0.0	0.0	0.0	66.5	54.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	10.1
UCLF (%)	2.3	0.0	0.6	6.7	21.5	0.2	1.5	0.3	0.1	1.1	0.7	0.8	3.0
XUF (%)	0.0	4.2	16.2	6.2	0.0	1.9	0.6	0.4	0.5	0.2	0.1	0.0	2.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Aug 1980 Lifetime Generation: 139429.9 GW(e).h
 Date of First Criticality: 25 May 1988 Cumulative Energy Availability Factor: 76.8%
 Date of Grid Connection: 06 Jul 1988 Cumulative Load Factor: 70.5%
 Date of Commercial Operation: 01 Jan 1989 Cumulative Unit Capability Factor: 78.5%
 Cumulative Energy Unavailability Factor: 23.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	8505.7	1310.0	87.0	87.0	86.6	86.6	74.1	74.1	7419	84.7
1990	6324.0	1310.0	58.4	72.7	56.9	71.8	55.1	64.6	5350	61.1
1991	7876.3	1310.0	73.3	72.9	70.3	71.3	68.6	66.0	6578	75.1
1992	8262.1	1310.0	75.9	73.7	75.3	72.3	71.8	67.4	6904	78.6
1993	8871.3	1310.0	83.4	75.6	80.1	73.8	77.3	69.4	7435	84.9
1994	8241.3	1310.0	80.4	76.4	76.9	74.4	71.8	69.8	7122	81.3
1995	7960.5	1310.0	99.3	79.7	97.5	77.7	69.4	69.7	7438	84.9
1996	7229.8	1310.0	74.5	79.0	71.2	76.8	62.8	68.9	6666	75.9
1997	8508.1	1310.0	84.9	79.7	82.0	77.4	74.1	69.5	7339	83.8
1998	5068.0	1310.0	45.0	76.2	45.0	74.2	44.2	66.9	4239	48.4
1999	4899.3	1310.0	44.8	73.3	43.3	71.4	42.7	64.7	4040	46.1
2000	9882.5	1310.0	97.4	75.4	96.7	73.5	85.9	66.5	8271	94.2
2001	8458.0	1310.0	79.2	75.7	78.6	73.9	73.7	67.0	6935	79.2
2002	9378.7	1310.0	86.1	76.4	84.3	74.6	81.7	68.1	7687	87.8
2003	8624.7	1310.0	80.4	76.7	79.4	74.9	75.2	68.6	7135	81.4
2004	10202.6	1310.0	98.0	78.0	97.1	76.3	88.7	69.8	8621	98.1
2005	9242.3	1310.0	86.9	78.5	84.4	76.8	80.5	70.5	7767	88.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		120			361	
B. Refuelling without a maintenance					17	
C. Inspection, maintenance or repair combined with refuelling	720			977		
E. Testing of plant systems or components	315			45		
H. Nuclear regulatory requirements					156	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					78	
L. Human factor related		72			2	
Z. Others					1	
Subtotal	1035	192	0	1022	615	0
Total	1227			1637		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		50
12. Reactor I&C Systems		56
13. Reactor Auxiliary Systems		10
14. Safety Systems	48	31
15. Reactor Cooling Systems		56
16. Steam generation systems		39
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities	48	
31. Turbine and auxiliaries	24	22
32. Feedwater and Main Steam System		16
33. Circulating Water System		3
41. Main Generator Systems		7
42. Electrical Power Supply Systems		13
Total	120	304

FR-32 BLAYAIS-1

Operator: EDF (ELECTRICITE DE FRANCE)
Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 910.0 MW(e)
Design Net Capacity: 910.0 MW(e)
Design Discharge Burnup: 33735 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6883.6 GW(e).h
Energy Availability Factor: 86.8%
Load Factor: 86.3%
Operating Factor: 89.5%
Energy Unavailability Factor: 13.2%
Total Off-line Time: 920 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	658.0	613.1	521.0	0.0	631.5	604.1	582.7	646.8	620.4	669.7	654.3	682.0	6883.6
EAF (%)	99.0	99.9	77.4	0.0	94.0	93.2	86.3	98.1	94.8	98.9	99.8	99.9	86.8
UCF (%)	99.0	99.9	80.5	0.0	94.2	94.2	88.3	99.8	96.4	99.9	99.8	99.9	87.7
LF (%)	97.2	100.3	76.9	0.0	93.3	92.2	86.1	95.5	94.7	98.8	99.9	100.7	86.3
OF (%)	99.7	100.0	80.8	1.5	100.0	100.0	93.7	100.0	97.4	100.0	100.0	100.0	89.5
EUf (%)	1.0	0.1	22.6	100.0	6.0	6.8	13.7	1.9	5.2	1.1	0.2	0.1	13.2
PUF (%)	0.2	0.0	19.2	78.5	5.6	0.0	0.0	0.2	0.0	0.0	0.2	0.1	8.6
UCLF (%)	0.8	0.1	0.4	21.5	0.3	5.8	11.7	0.1	3.6	0.1	0.1	0.0	3.7
XUF (%)	0.0	0.0	3.0	0.0	0.2	1.0	2.0	1.7	1.6	1.1	0.0	0.0	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASE LOAD OPERATION

5. Historical Summary

Date of Construction Start: 01 Jan 1977
Date of First Criticality: 20 May 1981
Date of Grid Connection: 12 Jun 1981
Date of Commercial Operation: 01 Dec 1981

Lifetime Generation: 136864.7 GW(e).h
Cumulative Energy Availability Factor: 76.2%
Cumulative Load Factor: 70.7%
Cumulative Unit Capability Factor: 78.9%
Cumulative Energy Unavailability Factor: 23.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	449.0	920.0	100.0	100.0	65.6	65.6	65.6	65.6	522	70.2
1982	6129.8	910.0	81.5	82.9	81.5	80.2	76.9	76.0	7588	86.6
1983	3453.0	910.0	46.9	65.6	43.9	62.8	43.3	60.3	4285	48.9
1984	6509.0	910.0	85.1	72.0	84.6	69.9	81.4	67.2	7536	85.8
1985	6225.2	910.0	83.0	74.7	82.8	73.0	78.1	69.8	7348	83.9
1986	6460.6	910.0	87.8	77.2	87.0	75.8	81.0	72.1	7754	88.5
1987	5586.6	910.0	78.2	77.4	76.2	75.8	70.1	71.7	6793	77.5
1988	5730.0	910.0	82.1	78.1	81.3	76.6	71.7	71.7	7069	80.5
1989	6222.4	910.0	84.2	78.8	83.3	77.4	78.1	72.5	7419	84.7
1990	5822.6	910.0	77.2	78.6	76.9	77.4	73.0	72.6	6834	78.0
1991	6379.0	910.0	83.8	79.2	83.3	78.0	80.0	73.3	7400	84.5
1992	4349.2	910.0	57.5	77.2	56.6	76.0	54.4	71.6	5079	57.8
1993	5979.2	910.0	83.7	77.7	78.3	76.2	75.0	71.9	7253	82.8
1994	3474.9	910.0	86.6	78.4	85.8	77.0	43.6	69.7	5119	58.4
1995	6075.8	910.0	87.1	79.0	84.3	77.5	76.2	70.2	7206	82.3
1996	6639.1	910.0	88.5	79.7	85.6	78.0	83.1	71.0	7798	88.8
1997	6196.6	910.0	90.1	80.3	84.6	78.4	77.7	71.4	7621	87.0
1998	5917.6	910.0	81.1	80.4	78.2	78.4	74.2	71.6	7078	80.8
1999	6046.8	910.0	80.9	80.4	77.9	78.4	75.9	71.8	7082	80.8
2000	2854.1	910.0	53.4	79.0	36.6	76.2	35.7	69.9	3602	41.0
2001	4881.5	910.0	66.2	78.3	64.0	75.6	61.2	69.5	5768	65.8
2002	6861.1	910.0	95.0	79.1	93.0	76.4	86.1	70.3	8251	94.2
2003	4541.7	910.0	61.8	78.3	58.1	75.6	57.0	69.7	5321	60.7
2004	6144.3	910.0	81.5	78.5	79.2	75.7	76.9	70.0	7217	82.2
2005	6883.6	910.0	87.7	78.9	86.8	76.2	86.3	70.7	7841	89.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					433	
B. Refuelling without a maintenance	697					
C. Inspection, maintenance or repair combined with refuelling				1023	6	
D. Inspection, maintenance or repair without refuelling				47		
E. Testing of plant systems or components				1	1	
H. Nuclear regulatory requirements					84	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					31	61
Z. Others		155			0	
Subtotal	697	155	0	1071	555	61
Total		852			1687	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		32
12. Reactor I&C Systems		52
13. Reactor Auxiliary Systems		4
14. Safety Systems		5
15. Reactor Cooling Systems		81
16. Steam generation systems		4
17. Safety I&C Systems (excluding reactor I&C)		0
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries		34
32. Feedwater and Main Steam System		40
33. Circulating Water System		1
41. Main Generator Systems		89
42. Electrical Power Supply Systems		16
Total	0	358

FR-33 BLAYAIS-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 910.0 MW(e)

Design Net Capacity: 910.0 MW(e)

Design Discharge Burnup: 33735 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6918.8 GW(e).h

Energy Availability Factor: 84.6%

Load Factor: 86.8%

Operating Factor: 85.8%

Energy Unavailability Factor: 15.4%

Total Off-line Time: 1248 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	704.3	642.4	708.1	650.6	445.9	0.0	385.4	665.5	656.6	685.2	675.7	699.0	6918.8
EAF (%)	99.1	100.0	99.9	95.8	64.6	0.0	57.8	99.8	99.9	99.5	99.8	99.7	84.6
UCF (%)	99.1	100.0	99.9	99.6	64.6	0.0	57.8	99.8	100.0	99.5	99.8	99.7	85.0
LF (%)	104.0	105.1	104.6	99.3	65.9	0.0	56.9	98.3	100.2	101.1	103.1	103.2	86.8
OF (%)	99.5	100.0	99.9	100.0	64.7	0.0	65.1	100.0	100.0	100.0	100.0	100.0	85.8
EUF (%)	1.0	0.0	0.1	4.2	35.4	100.0	42.2	0.2	0.1	0.5	0.2	0.3	15.4
PUF (%)	0.0	0.0	0.1	0.1	35.4	85.1	7.2	0.1	0.0	0.4	0.2	0.2	10.7
UCLF (%)	1.0	0.0	0.0	0.3	0.0	14.9	35.0	0.1	0.1	0.0	0.0	0.1	4.3
XUF (%)	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Jan 1977 Lifetime Generation: 140076.4 GW(e).h

Date of First Criticality: 28 Jun 1982 Cumulative Energy Availability Factor: 80.1%

Date of Grid Connection: 17 Jul 1982 Cumulative Load Factor: 75.4%

Date of Commercial Operation: 01 Feb 1983 Cumulative Unit Capability Factor: 82.4%

 Cumulative Energy Unavailability Factor: 19.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	4490.0	910.0	62.3	62.3	62.3	62.3	61.6	61.6	5120	63.9
1984	6645.0	910.0	86.5	75.0	85.5	74.5	83.1	72.8	7716	87.8
1985	6819.7	910.0	90.0	80.1	89.9	79.8	85.5	77.2	7937	90.6
1986	6048.4	910.0	83.2	80.9	82.9	80.5	75.9	76.9	7142	81.5
1987	5987.1	910.0	84.8	81.7	84.2	81.3	75.1	76.5	7218	82.4
1988	4162.0	910.0	91.2	83.3	90.8	82.9	52.1	72.4	5718	65.1
1989	5561.0	910.0	77.0	82.4	73.4	81.5	69.8	72.0	6720	76.7
1990	5656.4	910.0	87.4	83.0	85.7	82.1	71.0	71.9	7381	84.3
1991	5326.5	910.0	78.3	82.5	75.1	81.3	66.8	71.3	6789	77.5
1992	5953.3	910.0	86.9	82.9	83.7	81.5	74.5	71.6	7505	85.4
1993	5253.2	910.0	71.0	81.8	67.0	80.2	65.9	71.1	6203	70.8
1994	6692.6	910.0	88.7	82.4	88.1	80.9	84.0	72.2	7658	87.4
1995	6725.5	910.0	87.9	82.9	85.6	81.2	84.4	73.1	7775	88.8
1996	6709.8	910.0	87.4	83.2	85.0	81.5	83.9	73.9	7587	86.4
1997	6769.9	910.0	88.7	83.5	84.8	81.7	84.9	74.6	7681	87.7
1998	6974.3	910.0	90.0	84.0	87.2	82.1	87.5	75.4	7883	90.0
1999	5836.2	910.0	75.1	83.4	73.1	81.5	73.2	75.3	6544	74.7
2000	4941.1	910.0	75.2	83.0	63.0	80.5	61.8	74.6	5592	63.7
2001	6548.0	910.0	83.6	83.0	81.9	80.6	82.1	75.0	7358	84.0
2002	5972.0	910.0	84.3	83.1	82.7	80.7	74.9	75.0	7357	84.0
2003	5181.2	910.0	66.0	82.3	63.7	79.9	65.0	74.5	5784	66.0
2004	6734.6	910.0	82.6	82.3	81.5	79.9	84.3	74.9	7346	83.6
2005	6918.8	910.0	85.0	82.4	84.6	80.1	86.8	75.4	7513	85.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					172	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	877			1118	3	
D. Inspection, maintenance or repair without refuelling				28		
E. Testing of plant systems or components				84	0	
H. Nuclear regulatory requirements					16	
J. Grid failure or grid unavailability						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					11	58
Z. Others		311				
Subtotal	877	311	0	1230	204	63
Total		1188			1497	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		27
12. Reactor I&C Systems		7
13. Reactor Auxiliary Systems		8
14. Safety Systems		15
15. Reactor Cooling Systems		31
16. Steam generation systems		3
31. Turbine and auxiliaries		20
32. Feedwater and Main Steam System		14
33. Circulating Water System		6
41. Main Generator Systems		6
42. Electrical Power Supply Systems		6
Total	0	143

FR-34 BLAYAIS-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 910.0 MW(e)

Design Net Capacity: 910.0 MW(e)

Design Discharge Burnup: 33735 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5868.1 GW(e).h

Energy Availability Factor: 76.4%

Load Factor: 73.6%

Operating Factor: 78.5%

Energy Unavailability Factor: 23.6%

Total Off-line Time: 1885 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	680.2	614.9	574.2	614.9	672.3	636.4	658.0	455.0	552.4	318.3	0.0	91.6	5868.1
EAF (%)	100.0	100.0	85.5	93.9	100.0	97.4	97.8	97.2	84.3	47.5	0.0	14.8	76.4
UCF (%)	100.0	100.0	85.5	96.6	100.0	100.0	99.8	100.0	100.0	67.6	0.0	14.8	80.3
LF (%)	100.5	100.6	84.8	93.9	99.3	97.1	97.2	67.2	84.3	47.0	0.0	13.5	73.6
OF (%)	100.0	100.0	85.3	97.2	100.0	100.0	100.0	72.0	100.0	67.9	0.0	20.8	78.5
EUF (%)	0.0	0.0	14.5	6.1	0.0	2.6	2.2	2.8	15.7	52.5	100.0	85.2	23.6
PUF (%)	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	32.4	63.6	5.8	8.5
UCLF (%)	0.0	0.0	14.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	36.4	79.3	11.2
XUF (%)	0.0	0.0	0.0	2.7	0.0	2.6	2.1	2.8	15.7	20.0	0.0	0.0	3.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASE LOAD OPERATION

5. Historical Summary

Date of Construction Start: 01 Apr 1978 Lifetime Generation: 133891.8 GW(e).h

Date of First Criticality: 29 Jul 1983 Cumulative Energy Availability Factor: 79.9%

Date of Grid Connection: 17 Aug 1983 Cumulative Load Factor: 75.4%

Date of Commercial Operation: 14 Nov 1983 Cumulative Unit Capability Factor: 82.1%

 Cumulative Energy Unavailability Factor: 20.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	1164.0	910.0	100.0	100.0	87.4	87.4	87.4	87.4	1273	87.0
1984	5944.0	910.0	80.3	83.2	80.3	81.4	74.4	76.2	7055	80.3
1985	6568.9	910.0	87.0	84.9	86.6	83.8	82.4	79.1	7729	88.2
1986	6504.9	910.0	88.3	86.0	88.1	85.1	81.6	79.9	7759	88.6
1987	4304.7	910.0	93.9	87.9	93.5	87.1	54.0	73.7	5473	62.5
1988	5287.0	910.0	82.8	86.9	81.6	86.1	66.1	72.2	6708	76.4
1989	6086.4	910.0	82.7	86.2	78.5	84.8	76.4	72.9	7292	83.2
1990	4871.2	910.0	64.3	83.1	62.8	81.8	61.1	71.2	5673	64.8
1991	6372.3	910.0	84.6	83.3	84.0	82.0	79.9	72.3	7448	85.0
1992	5967.9	910.0	83.0	83.3	81.8	82.0	74.7	72.6	7220	82.2
1993	6285.3	910.0	87.7	83.7	79.8	81.8	78.8	73.2	7728	88.2
1994	4212.8	910.0	57.8	81.4	57.7	79.6	52.8	71.4	4979	56.8
1995	6739.6	910.0	85.9	81.8	85.4	80.1	84.5	72.4	7525	85.9
1996	6924.1	910.0	87.1	82.2	86.8	80.6	86.6	73.5	7744	88.2
1997	6614.1	910.0	86.4	82.5	86.4	81.0	83.0	74.2	7659	87.4
1998	6970.2	910.0	90.1	83.0	87.8	81.5	87.4	75.1	7954	90.8
1999	5123.0	910.0	66.8	82.0	64.2	80.4	64.3	74.4	5861	66.9
2000	6183.6	910.0	80.3	81.9	78.2	80.3	77.4	74.6	7143	81.3
2001	6707.1	910.0	85.4	82.1	84.2	80.5	84.1	75.1	7540	86.1
2002	6882.0	910.0	87.5	82.4	86.4	80.8	86.3	75.7	7682	87.7
2003	5844.9	910.0	86.5	82.6	73.6	80.4	73.3	75.6	6725	76.8
2004	5822.8	910.0	75.2	82.2	72.5	80.1	72.8	75.4	6699	76.3
2005	5868.1	910.0	80.3	82.1	76.4	79.9	73.6	75.4	6875	78.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		935			255	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	699			987	7	
D. Inspection, maintenance or repair without refuelling				31		
E. Testing of plant systems or components				2	0	
H. Nuclear regulatory requirements					34	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					60	16
L. Human factor related		46				
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						25
Subtotal	699	981	0	1020	357	41
Total		1680			1418	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		16
12. Reactor I&C Systems		14
13. Reactor Auxiliary Systems		42
14. Safety Systems		6
15. Reactor Cooling Systems		13
16. Steam generation systems	107	55
31. Turbine and auxiliaries	23	7
32. Feedwater and Main Steam System		4
33. Circulating Water System		1
41. Main Generator Systems	805	13
42. Electrical Power Supply Systems		16
Total	935	187

FR-35 BLAYAIS-4

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 910.0 MW(e)

Design Net Capacity: 910.0 MW(e)

Design Discharge Burnup: 33735 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5454.7 GW(e).h

Energy Availability Factor: 69.6%

Load Factor: 68.4%

Operating Factor: 72.6%

Energy Unavailability Factor: 30.4%

Total Off-line Time: 2403 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	626.8	530.5	653.6	620.4	562.6	567.1	131.6	0.0	0.0	434.0	655.9	672.1	5454.7
EAF (%)	96.0	89.7	99.9	96.9	83.7	86.6	20.1	0.0	0.0	64.6	100.0	99.7	69.6
UCF (%)	96.0	89.7	99.9	99.8	85.1	100.0	26.0	0.0	0.0	64.6	100.0	99.7	71.5
LF (%)	92.6	86.7	96.5	94.7	83.1	86.6	19.4	0.0	0.0	64.1	100.1	99.3	68.4
OF (%)	98.1	90.6	99.9	100.0	86.8	100.0	26.1	0.0	0.0	71.4	100.0	100.0	72.6
EUF (%)	4.0	10.3	0.1	3.1	16.3	13.4	79.9	100.0	100.0	35.4	0.0	0.3	30.4
PUF (%)	0.2	0.0	0.1	0.2	0.0	0.0	74.0	100.0	100.0	11.5	0.0	0.1	24.0
UCLF (%)	3.8	10.3	0.0	0.0	14.9	0.0	0.0	0.0	0.0	23.9	0.0	0.2	4.4
XUF (%)	0.0	0.0	0.0	2.9	1.4	13.4	5.9	0.0	0.0	0.0	0.0	0.0	2.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Apr 1978 Lifetime Generation: 133290.9 GW(e).h

Date of First Criticality: 01 May 1983 Cumulative Energy Availability Factor: 79.4%

Date of Grid Connection: 16 May 1983 Cumulative Load Factor: 74.3%

Date of Commercial Operation: 01 Oct 1983 Cumulative Unit Capability Factor: 81.8%

 Cumulative Energy Unavailability Factor: 20.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	1898.0	910.0	93.5	93.5	93.5	93.5	94.5	94.5	2092	94.7
1984	6012.0	910.0	76.3	79.8	76.0	79.5	75.2	79.1	6780	77.2
1985	5972.6	910.0	78.8	79.3	78.7	79.2	74.9	77.2	7024	80.2
1986	6278.1	910.0	82.5	80.3	81.9	80.0	78.8	77.7	7412	84.6
1987	6104.6	910.0	85.6	81.6	83.9	80.9	76.6	77.4	7437	84.9
1988	4337.0	910.0	71.5	79.6	70.2	78.9	54.3	73.0	5662	64.5
1989	5816.3	910.0	89.4	81.2	87.5	80.2	73.0	73.0	7250	82.8
1990	5912.3	910.0	83.4	81.5	78.2	80.0	74.2	73.2	7347	83.9
1991	5467.7	910.0	73.5	80.5	73.1	79.1	68.6	72.6	6496	74.2
1992	6120.6	910.0	84.1	80.9	83.5	79.6	76.6	73.0	7430	84.6
1993	5096.4	910.0	85.3	81.4	72.9	78.9	63.9	72.2	6854	78.2
1994	5897.1	910.0	82.6	81.5	81.8	79.2	74.0	72.3	7308	83.4
1995	5342.4	910.0	75.2	81.0	71.5	78.6	67.0	71.9	6198	70.8
1996	6719.6	910.0	88.2	81.5	86.9	79.2	84.1	72.8	7761	88.4
1997	6497.2	910.0	89.1	82.0	86.6	79.7	81.5	73.4	7705	88.0
1998	6692.6	910.0	90.3	82.6	87.9	80.3	84.0	74.1	7930	90.5
1999	6161.2	910.0	83.3	82.6	80.2	80.3	77.3	74.3	7369	84.1
2000	5467.5	910.0	75.1	82.2	72.5	79.8	68.4	74.0	6559	74.7
2001	6370.0	910.0	82.4	82.2	82.1	79.9	79.9	74.3	7297	83.3
2002	6462.2	910.0	86.2	82.4	85.1	80.2	81.1	74.6	7623	87.0
2003	5311.1	910.0	72.9	81.9	68.4	79.6	66.6	74.2	6292	71.8
2004	6560.3	910.0	88.3	82.2	84.6	79.9	82.1	74.6	7749	88.2
2005	5454.7	910.0	71.5	81.8	69.6	79.4	68.4	74.3	6357	72.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		216			302	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	2053			955	38	
D. Inspection, maintenance or repair without refuelling				9	0	
E. Testing of plant systems or components				1	0	
G. Major back-fitting, refurbishment or upgrading activities without refuelling						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					14	25
L. Human factor related		15			0	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						7
Z. Others		104			9	
Subtotal	2053	335	0	965	365	34
Total		2388			1364	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems	184	55
13. Reactor Auxiliary Systems		14
15. Reactor Cooling Systems		5
16. Steam generation systems		21
31. Turbine and auxiliaries		53
32. Feedwater and Main Steam System	5	4
33. Circulating Water System	27	10
41. Main Generator Systems		51
42. Electrical Power Supply Systems		16
XX. Miscellaneous Systems		0
Total	216	231

FR-13 BUGEY-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 910.0 MW(e)
Design Net Capacity: 920.0 MW(e)
Design Discharge Burnup: 33735 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6373.9 GW(e).h
Energy Availability Factor: 81.7%
Load Factor: 80.0%
Operating Factor: 86.8%
Energy Unavailability Factor: 18.3%
Total Off-line Time: 1153 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	596.3	305.7	3.8	642.3	656.5	580.2	524.7	622.5	620.3	600.7	595.0	626.0	6373.9
EAF (%)	91.2	50.4	1.6	97.8	97.7	90.6	79.8	95.7	97.3	91.3	92.3	93.4	81.7
UCF (%)	99.9	62.7	1.6	98.9	100.0	100.0	99.7	100.0	100.0	91.3	92.4	93.4	86.7
LF (%)	88.1	50.0	0.6	98.0	97.0	88.5	77.5	91.9	94.7	88.7	90.8	92.5	80.0
OF (%)	100.0	63.1	3.9	100.0	100.0	99.2	94.8	98.9	100.0	92.9	94.4	94.1	86.8
EUF (%)	8.8	49.6	98.4	2.2	2.3	9.4	20.2	4.3	2.7	8.7	7.7	6.6	18.3
PUF (%)	0.0	37.3	75.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
UCLF (%)	0.1	0.0	22.9	0.0	0.0	0.0	0.3	0.0	0.0	8.6	7.5	6.5	3.9
XUF (%)	8.8	12.3	0.0	1.2	2.2	9.4	19.9	4.3	2.7	0.0	0.1	0.0	5.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Nov 1972
Date of First Criticality: 20 Apr 1978
Date of Grid Connection: 10 May 1978
Date of Commercial Operation: 01 Mar 1979

Lifetime Generation: 143314.1 GW(e).h
Cumulative Energy Availability Factor: 71.3%
Cumulative Load Factor: 66.0%
Cumulative Unit Capability Factor: 74.8%
Cumulative Energy Unavailability Factor: 28.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	3535.0	925.0	100.0	100.0	53.2	53.2	52.0	52.0	4442	60.5
1980	4460.0	920.0	55.7	75.9	55.7	54.5	55.2	53.7	5271	60.0
1981	5209.6	920.0	65.2	72.2	65.2	58.3	64.6	57.6	6017	68.7
1982	3341.7	920.0	41.6	64.2	41.6	53.9	41.5	53.4	3863	44.1
1983	6725.0	920.0	85.3	68.6	85.3	60.4	83.4	59.6	7689	87.8
1984	5748.0	920.0	87.9	71.9	87.9	65.1	71.1	61.6	6580	74.9
1985	5948.8	920.0	79.7	73.0	76.0	66.7	73.8	63.4	7118	81.3
1986	5945.6	920.0	86.4	74.7	84.5	69.0	73.8	64.7	7515	85.8
1987	3581.1	920.0	53.4	72.3	51.6	67.0	44.4	62.4	4729	54.0
1988	4495.0	920.0	67.0	71.8	63.1	66.6	55.6	61.7	5718	65.1
1989	4700.8	920.0	64.7	71.1	61.1	66.1	58.3	61.4	5721	65.3
1990	4878.7	920.0	69.7	71.0	69.3	66.4	60.5	61.3	6213	70.9
1991	4927.2	920.0	66.7	70.7	64.4	66.2	61.1	61.3	6001	68.5
1992	3918.3	910.0	53.9	69.5	50.2	65.1	49.0	60.4	4781	54.4
1993	4509.9	910.0	99.2	71.5	94.2	67.0	56.6	60.2	5718	65.3
1994	5782.2	910.0	77.7	71.8	76.5	67.6	72.5	60.9	6811	77.8
1995	6045.7	910.0	79.6	72.3	78.1	68.2	75.8	61.8	7051	80.5
1996	5533.9	910.0	78.7	72.7	75.4	68.6	69.2	62.2	6863	78.1
1997	5477.7	910.0	84.4	73.3	81.0	69.3	68.7	62.6	6815	77.8
1998	5379.4	910.0	77.6	73.5	72.9	69.5	67.5	62.8	6605	75.4
1999	5960.3	910.0	78.9	73.8	77.5	69.9	74.8	63.4	7050	80.5
2000	5183.5	910.0	68.5	73.5	66.3	69.7	64.8	63.5	6025	68.6
2001	5685.9	910.0	72.3	73.5	72.2	69.8	71.3	63.8	6493	74.1
2002	5542.3	910.0	70.2	73.3	69.9	69.8	69.5	64.0	6212	70.9
2003	5521.7	910.0	74.8	73.4	71.0	69.9	69.3	64.2	6579	75.1
2004	7593.4	910.0	97.1	74.3	96.0	70.9	95.0	65.4	8571	97.6
2005	6373.9	910.0	86.7	74.8	81.7	71.3	80.0	66.0	7607	86.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		175			581	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	796			1175	47	
D. Inspection, maintenance or repair without refuelling				134		
E. Testing of plant systems or components				10	0	
H. Nuclear regulatory requirements				46		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				3	58	16
L. Human factor related					0	
Z. Others		26			10	
Subtotal	796	201	0	1368	697	16
Total		997			2081	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		191
12. Reactor I&C Systems		23
13. Reactor Auxiliary Systems	119	7
14. Safety Systems		74
15. Reactor Cooling Systems		38
16. Steam generation systems		18
21. Fuel Handling and Storage Facilities		68
31. Turbine and auxiliaries		26
32. Feedwater and Main Steam System		24
33. Circulating Water System		1
41. Main Generator Systems	25	75
42. Electrical Power Supply Systems	31	4
XX. Miscellaneous Systems		0
Total	175	549

FR-14 BUGEY-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 910.0 MW(e)
Design Net Capacity: 920.0 MW(e)
Design Discharge Burnup: 33735 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5805.4 GW(e).h
Energy Availability Factor: 76.8%
Load Factor: 72.8%
Operating Factor: 80.1%
Energy Unavailability Factor: 23.2%
Total Off-line Time: 1743 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	674.5	609.5	588.2	535.4	99.4	89.0	475.8	552.1	602.3	544.4	432.0	602.8	5805.4
EAF (%)	100.0	99.9	92.1	81.8	15.1	14.6	71.4	83.9	96.3	97.7	79.1	91.5	76.8
UCF (%)	100.0	99.9	96.3	95.3	19.4	14.6	98.8	99.0	96.5	97.7	79.1	91.5	82.3
LF (%)	99.6	99.7	86.9	81.7	14.7	13.6	70.3	81.5	91.9	80.4	65.9	89.0	72.8
OF (%)	100.0	100.0	92.3	96.1	19.6	20.0	81.9	92.2	97.2	94.4	76.3	92.2	80.1
EUF (%)	0.0	0.1	7.9	18.2	84.9	85.4	28.6	16.1	3.7	2.3	20.9	8.5	23.2
PUF (%)	0.0	0.0	0.0	0.3	74.2	82.6	0.4	0.1	0.0	0.0	0.5	0.0	13.2
UCLF (%)	0.0	0.1	3.7	4.4	6.5	2.9	0.8	0.9	3.5	2.3	20.4	8.5	4.5
XUF (%)	0.0	0.0	4.2	13.4	4.3	0.0	27.4	15.1	0.2	0.0	0.0	0.0	5.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start:	01 Sep 1973	Lifetime Generation:	142763.3 GW(e).h
Date of First Criticality:	31 Aug 1978	Cumulative Energy Availability Factor:	72.3%
Date of Grid Connection:	21 Sep 1978	Cumulative Load Factor:	66.1%
Date of Commercial Operation:	01 Mar 1979	Cumulative Unit Capability Factor:	76.3%
		Cumulative Energy Unavailability Factor:	27.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	2744.0	925.0	100.0	100.0	39.9	39.9	40.4	40.4	3308	45.0
1980	5960.0	920.0	74.7	86.2	74.7	58.8	73.8	58.5	6951	79.1
1981	4849.6	920.0	61.1	77.4	61.0	59.6	60.2	59.1	5646	64.5
1982	6002.2	920.0	84.3	79.2	78.9	64.6	74.5	63.1	7661	87.5
1983	5525.0	920.0	74.2	78.2	74.0	66.5	68.6	64.2	6556	74.8
1984	5793.0	920.0	78.0	78.1	78.0	68.5	71.7	65.5	6905	78.6
1985	4571.1	920.0	58.7	75.3	57.2	66.8	56.7	64.2	5235	59.8
1986	6558.1	920.0	87.7	76.9	87.1	69.4	81.4	66.4	7634	87.1
1987	5482.5	920.0	78.4	77.0	76.4	70.2	68.0	66.6	6637	75.8
1988	3812.0	920.0	64.7	75.8	62.4	69.4	47.2	64.6	4935	56.2
1989	4914.3	920.0	88.7	77.0	87.4	71.1	61.0	64.3	6467	73.8
1990	4538.6	920.0	68.0	76.2	62.9	70.4	56.3	63.6	5474	62.5
1991	3442.8	920.0	55.7	74.6	51.7	68.9	42.7	62.0	4168	47.6
1992	2490.0	910.0	32.5	71.6	32.2	66.3	31.2	59.8	2879	32.8
1993	5954.4	910.0	80.2	72.2	76.1	67.0	74.7	60.8	7117	81.2
1994	4717.7	910.0	70.0	72.0	65.2	66.9	59.2	60.7	5872	67.0
1995	5535.7	910.0	95.9	73.4	95.2	68.5	69.4	61.2	6564	74.9
1996	5652.9	910.0	78.7	73.7	76.4	69.0	70.7	61.7	7012	79.8
1997	5596.6	910.0	75.0	73.8	74.9	69.3	70.2	62.2	6561	74.9
1998	6680.4	910.0	89.1	74.6	89.0	70.3	83.8	63.2	7875	89.9
1999	5786.6	910.0	77.6	74.7	77.3	70.6	72.6	63.7	7001	79.9
2000	5745.1	910.0	75.7	74.8	74.7	70.8	71.9	64.1	6765	77.0
2001	6230.6	910.0	81.8	75.1	81.2	71.2	78.2	64.7	7129	81.4
2002	4634.7	880.0	65.3	74.7	62.7	70.9	60.1	64.5	5654	64.5
2003	6646.1	910.0	97.2	75.6	85.2	71.5	83.4	65.2	7924	90.5
2004	6447.3	910.0	88.2	76.1	87.9	72.1	80.7	65.8	7461	84.9
2005	5805.4	910.0	82.3	76.3	76.8	72.3	72.8	66.1	7017	80.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		170			543	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	1119			999	46	
D. Inspection, maintenance or repair without refuelling				82		
E. Testing of plant systems or components				51	1	
H. Nuclear regulatory requirements						3
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					70	63
L. Human factor related		63				
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						21
Z. Others					3	
Subtotal	1119	233	0	1132	667	87
Total		1352			1886	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		230
12. Reactor I&C Systems		7
13. Reactor Auxiliary Systems		14
14. Safety Systems		23
15. Reactor Cooling Systems		46
16. Steam generation systems		23
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		41
32. Feedwater and Main Steam System	170	17
33. Circulating Water System		1
41. Main Generator Systems		112
42. Electrical Power Supply Systems		15
Total	170	529

FR-15 BUGEY-4

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 880.0 MW(e)
Design Net Capacity: 900.0 MW(e)
Design Discharge Burnup: 33735 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6073.2 GW(e).h
Energy Availability Factor: 80.3%
Load Factor: 78.8%
Operating Factor: 87.6%
Energy Unavailability Factor: 19.7%
Total Off-line Time: 1088 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	652.2	581.2	621.6	608.5	595.7	416.2	530.9	547.5	26.5	278.8	563.2	650.9	6073.2
EAF (%)	100.0	98.0	98.2	99.6	95.6	69.4	82.1	83.6	5.1	43.1	89.3	100.0	80.3
UCF (%)	100.0	98.0	98.2	99.9	97.4	86.8	88.1	99.8	6.7	43.1	89.3	100.0	84.0
LF (%)	99.6	98.3	94.9	96.0	91.0	65.7	81.1	83.6	4.2	42.6	88.9	99.4	78.8
OF (%)	100.0	98.2	98.5	100.0	100.0	77.5	91.5	100.0	6.9	81.2	95.8	100.0	87.6
EUF (%)	0.0	2.0	1.8	0.4	4.4	30.6	17.9	16.4	94.9	56.9	10.7	0.0	19.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	93.3	17.5	2.0	0.0	9.3
UCLF (%)	0.0	2.0	1.8	0.0	2.6	13.1	12.0	0.2	0.1	39.4	8.7	0.0	6.7
XUF (%)	0.0	0.0	0.0	0.4	1.8	17.4	6.0	16.2	1.6	0.0	0.0	0.0	3.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start: 01 Jun 1974
Date of First Criticality: 17 Feb 1979
Date of Grid Connection: 08 Mar 1979
Date of Commercial Operation: 01 Jul 1979

Lifetime Generation: 138522.8 GW(e).h
Cumulative Energy Availability Factor: 72.6%
Cumulative Load Factor: 66.6%
Cumulative Unit Capability Factor: 75.7%
Cumulative Energy Unavailability Factor: 27.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	2323.0	900.0	100.0	100.0	64.6	64.6	58.4	58.4	2854	64.6
1980	5063.0	900.0	65.8	77.3	65.8	65.4	64.0	62.2	5983	68.1
1981	5671.9	900.0	75.6	76.6	75.6	69.5	71.9	66.1	6834	78.0
1982	5474.9	900.0	69.9	74.7	69.8	69.6	69.4	67.0	6276	71.6
1983	6329.0	900.0	84.6	76.9	83.2	72.6	80.3	70.0	7389	84.3
1984	5882.0	900.0	75.8	76.7	75.8	73.2	74.4	70.8	6896	78.5
1985	6224.4	900.0	87.2	78.3	86.7	75.3	78.9	72.0	7696	87.9
1986	5312.7	900.0	78.7	78.4	76.1	75.4	67.4	71.4	6622	75.6
1987	4670.9	900.0	79.8	78.5	78.2	75.7	59.2	70.0	6180	70.5
1988	3323.0	900.0	67.3	77.3	51.5	73.1	42.0	67.0	4524	51.5
1989	5541.3	900.0	76.7	77.3	76.2	73.4	70.3	67.3	6846	78.2
1990	3186.6	880.0	56.7	75.5	53.5	71.7	41.3	65.1	4312	49.2
1991	4984.9	880.0	71.8	75.2	69.3	71.6	64.7	65.1	6317	72.1
1992	1649.1	880.0	22.2	71.4	22.2	68.0	21.3	61.9	2012	22.9
1993	5748.6	880.0	82.2	72.1	74.2	68.4	74.6	62.8	7506	85.7
1994	5209.3	880.0	83.5	72.8	82.2	69.3	67.6	63.1	6619	75.6
1995	3989.9	880.0	64.3	72.3	59.1	68.7	51.8	62.4	4843	55.3
1996	4188.1	880.0	62.6	71.8	62.4	68.3	54.2	61.9	5333	60.7
1997	5652.5	880.0	83.6	72.4	80.7	69.0	73.3	62.5	7420	84.7
1998	6304.0	880.0	88.3	73.2	86.3	69.8	81.8	63.5	7791	88.9
1999	5591.3	880.0	81.5	73.6	77.5	70.2	72.5	63.9	7231	82.5
2000	5988.0	880.0	85.1	74.1	82.6	70.8	77.5	64.6	7544	85.9
2001	4746.0	880.0	65.8	73.8	63.4	70.5	61.6	64.4	5921	67.6
2002	5590.8	880.0	83.5	74.2	83.4	71.0	72.5	64.8	7130	81.4
2003	6645.3	880.0	95.6	75.0	94.2	71.9	86.2	65.6	8192	93.5
2004	6098.3	880.0	83.0	75.3	81.3	72.3	78.9	66.2	7367	83.9
2005	6073.2	880.0	84.0	75.7	80.3	72.6	78.8	66.6	7672	87.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		56			631	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	741			1109	23	
D. Inspection, maintenance or repair without refuelling				117		
E. Testing of plant systems or components				10	0	
H. Nuclear regulatory requirements						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					10	34
L. Human factor related					0	
Z. Others					2	
Subtotal	741	56	0	1236	675	35
Total		797			1946	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		303
12. Reactor I&C Systems		24
13. Reactor Auxiliary Systems		4
14. Safety Systems		12
15. Reactor Cooling Systems		27
16. Steam generation systems		34
17. Safety I&C Systems (excluding reactor I&C)		0
21. Fuel Handling and Storage Facilities		3
31. Turbine and auxiliaries		36
32. Feedwater and Main Steam System	37	9
33. Circulating Water System	19	3
41. Main Generator Systems		34
42. Electrical Power Supply Systems		136
XX. Miscellaneous Systems		0
Total	56	625

FR-16 BUGEY-5

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 880.0 MW(e)
 Design Net Capacity: 900.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7022.8 GW(e).h
 Energy Availability Factor: 97.5%
 Load Factor: 91.1%
 Operating Factor: 97.9%
 Energy Unavailability Factor: 2.5%
 Total Off-line Time: 188 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	605.5	592.5	646.6	588.7	572.9	471.7	555.3	548.6	576.9	608.1	605.6	650.4	7022.8
EAF (%)	97.2	100.0	100.0	94.4	99.0	85.3	95.7	100.0	100.0	100.0	99.9	99.1	97.5
UCF (%)	97.2	100.0	100.0	94.4	100.0	100.0	95.7	100.0	100.0	100.0	99.9	99.2	98.9
LF (%)	92.5	100.2	98.8	92.9	87.5	74.4	84.8	83.8	91.1	92.8	95.6	99.3	91.1
OF (%)	97.6	100.0	99.9	93.9	98.8	88.2	95.8	100.0	100.0	100.0	100.0	100.0	97.9
EUF (%)	2.8	0.0	0.0	5.6	1.0	14.7	4.3	0.0	0.0	0.0	0.1	0.9	2.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
UCLF (%)	2.8	0.0	0.0	5.6	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.8	1.1
XUF (%)	0.0	0.0	0.0	0.0	1.0	14.7	0.0	0.0	0.0	0.0	0.0	0.1	1.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Jul 1974 Lifetime Generation: 140127.1 GW(e).h
 Date of First Criticality: 15 Jul 1979 Cumulative Energy Availability Factor: 74.9%
 Date of Grid Connection: 31 Jul 1979 Cumulative Load Factor: 68.7%
 Date of Commercial Operation: 03 Jan 1980 Cumulative Unit Capability Factor: 77.9%
 Cumulative Energy Unavailability Factor: 25.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	6589.0	900.0	100.0	100.0	84.5	84.5	83.3	83.3	8050	91.6
1981	4869.3	900.0	62.7	81.4	62.7	73.6	61.8	72.6	6061	69.2
1982	5738.5	900.0	76.4	79.7	76.4	74.5	72.8	72.6	6956	79.4
1983	5578.0	900.0	73.9	78.3	73.9	74.4	70.8	72.2	6649	75.9
1984	5778.0	900.0	74.1	77.4	74.1	74.3	73.1	72.4	6884	78.4
1985	6079.7	900.0	84.6	78.6	80.5	75.4	77.1	73.1	7314	83.5
1986	5465.5	900.0	75.7	78.2	75.5	75.4	69.3	72.6	6493	74.1
1987	5015.9	900.0	67.8	76.9	66.6	74.3	63.6	71.5	6044	69.0
1988	5466.0	900.0	89.7	78.3	84.6	75.4	69.1	71.2	6465	73.6
1989	4758.0	900.0	68.8	77.4	64.7	74.4	60.3	70.1	6185	70.6
1990	5586.0	880.0	80.7	77.7	74.9	74.4	72.5	70.3	7156	81.7
1991	3358.4	880.0	47.9	75.2	44.0	71.9	43.6	68.2	4258	48.6
1992	4035.0	880.0	56.4	73.8	52.5	70.5	52.2	66.9	5003	57.0
1993	4416.6	880.0	60.5	72.9	57.4	69.5	57.3	66.3	5329	60.8
1994	4487.3	880.0	85.9	73.7	85.7	70.6	58.2	65.7	6311	72.0
1995	5582.8	880.0	79.9	74.1	78.0	71.1	72.4	66.1	7060	80.6
1996	5361.4	880.0	79.0	74.4	77.5	71.4	69.4	66.3	6844	77.9
1997	5592.9	880.0	88.0	75.1	84.3	72.1	72.6	66.7	7302	83.4
1998	5320.4	880.0	83.9	75.6	80.5	72.6	69.0	66.8	6844	78.1
1999	6108.8	880.0	86.8	76.2	82.7	73.1	79.2	67.4	7679	87.7
2000	5403.2	880.0	77.3	76.2	74.6	73.1	69.9	67.5	6889	78.4
2001	4358.6	880.0	77.9	76.3	72.1	73.1	56.5	67.0	5604	64.0
2002	6146.9	900.0	91.2	76.9	91.2	73.9	78.0	67.5	7925	90.5
2003	5711.1	880.0	83.5	77.2	80.0	74.1	74.1	67.8	7220	82.4
2004	5256.1	880.0	72.7	77.0	71.4	74.0	68.0	67.8	6438	73.3
2005	7022.8	880.0	98.9	77.9	97.5	74.9	91.1	68.7	8573	97.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		26			374	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling				1331	14	
D. Inspection, maintenance or repair without refuelling				25		
E. Testing of plant systems or components				8	2	
H. Nuclear regulatory requirements					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			449		58	25
L. Human factor related		21				
P. Fire						6
Z. Others					10	
Subtotal	0	47	449	1364	463	31
Total		496			1858	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		27
12. Reactor I&C Systems	26	52
13. Reactor Auxiliary Systems		9
14. Safety Systems		4
15. Reactor Cooling Systems		32
16. Steam generation systems		165
31. Turbine and auxiliaries		38
32. Feedwater and Main Steam System		6
41. Main Generator Systems		18
42. Electrical Power Supply Systems		10
XX. Miscellaneous Systems		0
Total	26	361

FR-50 CATTENOM-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1300.0 MW(e)
 Design Net Capacity: 1300.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9323.8 GW(e).h
 Energy Availability Factor: 83.2%
 Load Factor: 81.9%
 Operating Factor: 90.4%
 Energy Unavailability Factor: 16.8%
 Total Off-line Time: 842 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	846.9	697.4	280.4	120.4	934.1	882.7	921.7	925.9	892.7	939.8	926.0	955.8	9323.8
EAF (%)	89.7	79.8	29.6	14.0	98.0	97.2	97.5	98.6	96.9	97.9	99.2	99.3	83.2
UCF (%)	100.0	100.0	58.3	14.0	98.5	99.7	99.8	99.9	99.0	99.8	100.0	99.9	89.1
LF (%)	87.6	79.8	29.0	12.9	96.6	94.3	95.3	95.7	95.4	97.0	98.9	98.8	81.9
OF (%)	100.0	100.0	58.5	26.7	100.0	100.0	100.0	100.0	99.3	100.0	100.0	100.0	90.4
EUF (%)	10.3	20.2	70.4	86.0	2.0	2.8	2.5	1.4	3.1	2.1	0.8	0.7	16.8
PUF (%)	0.0	0.0	41.7	75.9	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	9.8
UCLF (%)	0.0	0.0	0.0	10.0	1.4	0.2	0.0	0.0	0.9	0.1	0.0	0.0	1.1
XUF (%)	10.3	20.2	28.7	0.0	0.6	2.6	2.4	1.3	2.1	1.9	0.8	0.6	5.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 29 Oct 1979 Lifetime Generation: 145879.5 GW(e).h
 Date of First Criticality: 24 Oct 1986 Cumulative Energy Availability Factor: 71.8%
 Date of Grid Connection: 13 Nov 1986 Cumulative Load Factor: 67.5%
 Date of Commercial Operation: 01 Apr 1987 Cumulative Unit Capability Factor: 73.0%
 Cumulative Energy Unavailability Factor: 28.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	5472.0	1265.0	69.5	69.5	68.8	68.8	65.5	65.5	4514	68.4
1988	5283.0	1300.0	47.8	57.0	47.4	56.4	46.3	54.4	4369	49.7
1989	6802.4	1300.0	60.3	58.2	60.3	57.8	59.7	56.4	5548	63.3
1990	7781.9	1300.0	75.7	62.9	75.3	62.5	68.3	59.6	6710	76.6
1991	1509.3	1300.0	13.5	52.4	13.5	52.2	13.3	49.8	1336	15.3
1992	7933.3	1300.0	71.5	55.8	71.0	55.5	69.5	53.2	6595	75.1
1993	6956.6	1300.0	63.5	56.9	61.5	56.3	61.1	54.4	5608	64.0
1994	6775.4	1300.0	64.1	57.8	64.0	57.3	59.5	55.0	6006	68.6
1995	6634.3	1300.0	59.8	58.1	59.5	57.6	58.3	55.4	6346	72.4
1996	9539.2	1300.0	87.5	61.1	87.3	60.6	83.5	58.3	7783	88.6
1997	8688.9	1300.0	84.1	63.2	81.4	62.6	76.3	60.0	7374	84.2
1998	9365.8	1300.0	85.9	65.2	85.7	64.5	82.2	61.9	7644	87.3
1999	8273.0	1300.0	79.8	66.3	76.3	65.5	72.6	62.7	7028	80.2
2000	8053.8	1300.0	81.0	67.4	78.1	66.4	70.5	63.3	6873	78.2
2001	9220.2	1300.0	96.4	69.3	96.4	68.4	81.0	64.5	8094	92.4
2002	8270.2	1300.0	79.4	70.0	79.2	69.1	72.6	65.0	7011	80.0
2003	8531.0	1300.0	80.4	70.6	78.4	69.7	74.9	65.6	7150	81.6
2004	9764.2	1300.0	96.9	72.1	96.4	71.2	85.5	66.7	8583	97.7
2005	9323.8	1300.0	89.1	73.0	83.2	71.8	81.9	67.5	7919	90.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		72			892	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	766			895	17	
D. Inspection, maintenance or repair without refuelling				54	9	
E. Testing of plant systems or components				75		
H. Nuclear regulatory requirements					8	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					74	
Subtotal	766	72	0	1024	1005	1
Total		838			2030	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		19
12. Reactor I&C Systems		42
13. Reactor Auxiliary Systems		32
14. Safety Systems		10
15. Reactor Cooling Systems	72	98
16. Steam generation systems		42
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities		4
31. Turbine and auxiliaries		42
32. Feedwater and Main Steam System		103
33. Circulating Water System		22
41. Main Generator Systems		427
42. Electrical Power Supply Systems		17
XX. Miscellaneous Systems		5
Total	72	864

FR-53 CATTENOM-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1300.0 MW(e)

Design Net Capacity: 1300.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9247.8 GW(e).h

Energy Availability Factor: 84.7%

Load Factor: 81.2%

Operating Factor: 89.6%

Energy Unavailability Factor: 15.3%

Total Off-line Time: 915 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	902.1	861.6	867.7	837.0	903.6	907.1	894.2	765.8	204.4	325.0	887.9	891.3	9247.8
EAF (%)	97.9	99.9	98.9	99.8	99.3	97.4	92.5	79.3	22.4	34.9	98.1	96.2	84.7
UCF (%)	100.0	100.0	99.7	99.9	99.9	99.9	100.0	95.2	30.0	35.3	98.8	96.3	87.9
LF (%)	93.3	98.6	89.7	89.4	93.4	96.9	92.4	79.2	21.8	33.6	94.9	92.1	81.2
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	97.3	30.4	50.4	100.0	96.8	89.6
EUF (%)	2.1	0.1	1.1	0.2	0.7	2.6	7.5	20.7	77.6	65.1	1.9	3.8	15.3
PUF (%)	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	70.0	50.3	0.6	0.0	10.1
UCLF (%)	0.0	0.0	0.3	0.1	0.0	0.1	0.0	4.8	0.0	14.4	0.7	3.7	2.0
XUF (%)	2.1	0.0	0.8	0.1	0.7	2.4	7.5	16.0	7.6	0.4	0.7	0.0	3.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 28 Jul 1980 Lifetime Generation: 147648.6 GW(e).h

Date of First Criticality: 07 Aug 1987 Cumulative Energy Availability Factor: 76.9%

Date of Grid Connection: 17 Sep 1987 Cumulative Load Factor: 71.4%

Date of Commercial Operation: 01 Feb 1988 Cumulative Unit Capability Factor: 78.9%

 Cumulative Energy Unavailability Factor: 23.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	7457.0	1300.0	91.0	91.0	90.8	90.8	71.3	71.3	6588	81.9
1989	1765.5	1300.0	16.5	52.2	15.5	51.5	15.5	42.2	1452	16.6
1990	8137.6	1300.0	83.0	62.7	82.7	62.2	71.5	52.2	6670	76.1
1991	7543.1	1300.0	71.7	65.0	68.2	63.7	66.2	55.8	6472	73.9
1992	8134.3	1300.0	75.6	67.2	72.4	65.5	71.2	59.0	6752	76.9
1993	8627.0	1300.0	78.8	69.2	76.2	67.3	75.8	61.8	6990	79.8
1994	8526.3	1300.0	80.5	70.8	77.7	68.8	74.9	63.7	7158	81.7
1995	8603.7	1300.0	79.9	71.9	78.3	70.0	75.6	65.2	7138	81.5
1996	9018.1	1300.0	99.6	75.1	98.1	73.2	79.0	66.7	7804	88.8
1997	8487.4	1300.0	84.4	76.0	82.2	74.1	74.5	67.5	7503	85.7
1998	7259.5	1300.0	69.0	75.3	68.0	73.5	63.7	67.2	6144	70.1
1999	9367.5	1300.0	90.2	76.6	87.3	74.7	82.3	68.4	7781	88.8
2000	9164.3	1300.0	88.6	77.5	88.6	75.7	80.3	69.4	7868	89.6
2001	8649.0	1300.0	79.4	77.7	77.5	75.9	75.9	69.8	7033	80.3
2002	8288.0	1300.0	76.9	77.6	76.9	75.9	72.8	70.0	6918	79.0
2003	10197.5	1300.0	99.3	79.0	93.5	77.0	89.5	71.3	8217	93.8
2004	7368.2	1300.0	68.7	78.4	66.8	76.4	64.5	70.9	6183	70.4
2005	9247.8	1300.0	87.9	78.9	84.7	76.9	81.2	71.4	7845	89.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		91			533	
B. Refuelling without a maintenance					12	
C. Inspection, maintenance or repair combined with refuelling	783			927	8	
D. Inspection, maintenance or repair without refuelling				63	24	
E. Testing of plant systems or components				64	0	2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					13	26
L. Human factor related		62			1	
Z. Others					23	
Subtotal	783	153	0	1054	614	28
Total		936			1696	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		14
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		10
14. Safety Systems	50	33
15. Reactor Cooling Systems	18	248
16. Steam generation systems		103
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System	23	18
33. Circulating Water System		1
41. Main Generator Systems		2
42. Electrical Power Supply Systems		27
XX. Miscellaneous Systems		6
Total	91	485

FR-60 CATTENOM-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1300.0 MW(e)
 Design Net Capacity: 1300.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9757.0 GW(e).h
 Energy Availability Factor: 86.7%
 Load Factor: 85.7%
 Operating Factor: 90.7%
 Energy Unavailability Factor: 13.3%
 Total Off-line Time: 817 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	972.8	876.8	954.6	912.0	850.5	419.6	164.7	937.1	898.1	898.5	908.0	964.4	9757.0
EAF (%)	99.9	99.9	98.8	97.4	87.9	45.3	18.3	97.7	97.8	99.2	99.0	99.9	86.7
UCF (%)	100.0	100.0	99.9	99.5	98.9	56.6	18.3	99.7	99.7	100.0	99.3	100.0	89.2
LF (%)	100.6	100.4	98.7	97.4	87.9	44.8	17.0	96.9	95.9	92.8	97.0	99.7	85.7
OF (%)	100.0	100.0	99.9	100.0	100.0	56.8	32.1	100.0	100.0	100.0	100.0	100.0	90.7
EUF (%)	0.1	0.1	1.2	2.6	12.1	54.7	81.7	2.3	2.2	0.8	1.0	0.1	13.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	43.4	78.6	0.3	0.3	0.0	0.0	0.0	10.3
UCLF (%)	0.0	0.0	0.1	0.5	1.1	0.1	3.1	0.0	0.0	0.0	0.7	0.0	0.5
XUF (%)	0.0	0.1	1.1	2.1	10.9	11.2	0.0	2.0	1.9	0.8	0.2	0.0	2.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

END OF BASE LOAD OPERATION

5. Historical Summary

Date of Construction Start: 15 Jun 1982 Lifetime Generation: 128909.4 GW(e).h
 Date of First Criticality: 16 Feb 1990 Cumulative Energy Availability Factor: 79.9%
 Date of Grid Connection: 06 Jul 1990 Cumulative Load Factor: 74.6%
 Date of Commercial Operation: 01 Feb 1991 Cumulative Unit Capability Factor: 82.0%
 Cumulative Energy Unavailability Factor: 20.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1991	8931.1	1300.0	89.6	89.6	88.2	88.2	85.7	85.7	7255	90.5
1992	7145.0	1300.0	67.0	77.8	65.6	76.4	62.6	73.6	5903	67.2
1993	8035.1	1300.0	81.2	78.9	75.9	76.2	70.6	72.6	6858	78.3
1994	8613.3	1300.0	85.7	80.7	84.4	78.3	75.6	73.3	7464	85.2
1995	8344.3	1300.0	82.2	81.0	78.9	78.4	73.3	73.3	7269	83.0
1996	8264.7	1300.0	80.6	80.9	77.3	78.2	72.4	73.2	7184	81.8
1997	9504.1	1300.0	94.5	82.9	93.2	80.4	83.5	74.7	8097	92.4
1998	8054.9	1300.0	83.5	83.0	80.2	80.4	70.7	74.2	7175	81.9
1999	8237.0	1300.0	83.5	83.0	79.7	80.3	72.3	74.0	7169	81.8
2000	8933.5	1300.0	99.1	84.6	98.7	82.2	78.2	74.4	7984	90.9
2001	3171.5	1300.0	29.8	79.6	29.7	77.4	27.8	70.1	2739	31.3
2002	9402.5	1300.0	83.6	80.0	82.5	77.8	82.6	71.2	7443	85.0
2003	11254.0	1300.0	99.3	81.5	98.4	79.4	98.8	73.3	8715	99.5
2004	9162.7	1300.0	81.4	81.5	80.3	79.5	80.2	73.8	7274	82.8
2005	9757.0	1300.0	89.2	82.0	86.7	79.9	85.7	74.6	7944	90.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					213	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	815			803	22	
D. Inspection, maintenance or repair without refuelling				73		
E. Testing of plant systems or components				16		
H. Nuclear regulatory requirements					127	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					42	4
Z. Others					1	
Subtotal	815	0	0	892	405	4
Total		815			1301	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		30
13. Reactor Auxiliary Systems		62
14. Safety Systems		18
15. Reactor Cooling Systems		14
16. Steam generation systems		5
21. Fuel Handling and Storage Facilities		6
31. Turbine and auxiliaries		26
32. Feedwater and Main Steam System		5
41. Main Generator Systems		11
42. Electrical Power Supply Systems		7
XX. Miscellaneous Systems		4
Total	0	188

FR-65 CATTENOM-4

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1300.0 MW(e)
 Design Net Capacity: 1300.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9913.9 GW(e).h
 Energy Availability Factor: 97.8%
 Load Factor: 87.1%
 Operating Factor: 97.3%
 Energy Unavailability Factor: 2.2%
 Total Off-line Time: 240 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	908.6	845.4	848.5	864.4	846.6	761.6	695.9	646.2	790.8	889.8	874.9	941.3	9913.9
EAF (%)	96.9	100.0	93.4	99.9	99.8	99.5	99.6	91.6	99.4	97.5	99.4	97.2	97.8
UCF (%)	97.0	100.0	93.6	99.9	100.0	99.9	99.9	92.1	99.8	98.3	99.7	100.0	98.3
LF (%)	93.9	96.8	87.7	92.3	87.5	81.4	71.9	66.8	84.5	92.0	93.5	97.3	87.1
OF (%)	97.3	100.0	94.5	100.0	100.0	100.0	96.9	83.5	100.0	99.2	96.3	100.0	97.3
EUF (%)	3.1	0.0	6.6	0.1	0.2	0.5	0.4	8.4	0.6	2.5	0.6	2.8	2.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	3.0	0.0	6.3	0.1	0.0	0.1	0.0	7.9	0.2	1.7	0.3	0.0	1.7
XUF (%)	0.0	0.0	0.2	0.0	0.2	0.4	0.4	0.5	0.4	0.7	0.3	2.8	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 28 Sep 1983 Lifetime Generation: 126916.5 GW(e).h
 Date of First Criticality: 04 May 1991 Cumulative Energy Availability Factor: 84.3%
 Date of Grid Connection: 27 May 1991 Cumulative Load Factor: 78.2%
 Date of Commercial Operation: 01 Jan 1992 Cumulative Unit Capability Factor: 85.9%
 Cumulative Energy Unavailability Factor: 15.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1992	9356.0	1300.0	88.0	88.0	85.8	85.8	81.9	81.9	7649	87.1
1993	7736.4	1300.0	79.1	83.6	78.0	81.9	67.9	74.9	6251	71.4
1994	7828.8	1300.0	81.9	83.0	80.4	81.4	68.7	72.9	6866	78.4
1995	8942.4	1300.0	85.5	83.6	82.8	81.8	78.5	74.3	7563	86.3
1996	8897.6	1300.0	82.6	83.4	81.3	81.7	77.9	75.0	7399	84.2
1997	8690.5	1300.0	82.6	83.3	79.3	81.3	76.3	75.2	7382	84.3
1998	10000.1	1300.0	96.1	85.1	94.5	83.2	87.8	77.0	8476	96.8
1999	8131.9	1300.0	82.9	84.8	80.8	82.9	71.4	76.3	7164	81.8
2000	9139.0	1300.0	86.6	85.0	85.1	83.1	80.0	76.7	7692	87.6
2001	8593.2	1300.0	86.6	85.2	84.8	83.3	75.5	76.6	7375	84.2
2002	10598.8	1300.0	95.3	86.1	95.1	84.4	93.1	78.1	8467	96.7
2003	7708.3	1300.0	72.1	84.9	69.8	83.1	67.7	77.2	6406	73.1
2004	9311.8	1300.0	85.0	84.9	84.5	83.2	81.5	77.6	7560	86.1
2005	9913.9	1300.0	98.3	85.9	97.8	84.3	87.1	78.2	8520	97.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1991 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					159	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling				883	44	
D. Inspection, maintenance or repair without refuelling				76		
E. Testing of plant systems or components				74		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			662		4	
Subtotal	0	0	662	1033	208	0
Total		662			1241	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1991 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		3
14. Safety Systems		46
16. Steam generation systems		4
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		25
32. Feedwater and Main Steam System		17
41. Main Generator Systems		23
42. Electrical Power Supply Systems		9
Total	0	142

FR-40 CHINON-B-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 905.0 MW(e)
 Design Net Capacity: 870.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6465.8 GW(e).h
 Energy Availability Factor: 83.9%
 Load Factor: 81.5%
 Operating Factor: 86.9%
 Energy Unavailability Factor: 16.1%
 Total Off-line Time: 1150 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	646.5	582.7	646.3	621.9	547.7	0.0	307.0	633.9	605.4	632.2	603.4	638.7	6465.8
EAF (%)	98.6	97.2	98.3	98.0	82.6	0.0	48.8	97.7	96.9	97.6	95.0	96.3	83.9
UCF (%)	98.6	98.7	98.4	98.1	85.2	0.0	48.8	97.7	96.9	98.6	95.0	97.9	84.5
LF (%)	96.0	95.8	96.0	95.4	81.3	0.0	45.6	94.1	92.9	93.8	92.6	94.9	81.5
OF (%)	100.0	100.0	99.9	100.0	87.5	0.0	59.4	100.0	98.3	100.0	96.9	100.0	86.9
EUF (%)	1.4	2.8	1.7	2.0	17.4	100.0	51.2	2.3	3.1	2.4	5.0	3.7	16.1
PUF (%)	0.1	0.1	0.1	0.1	13.0	100.0	19.9	0.1	0.1	0.1	0.3	0.1	11.1
UCLF (%)	1.3	1.2	1.5	1.8	1.8	0.0	31.3	2.2	3.1	1.3	4.8	2.0	4.4
XUF (%)	0.0	1.6	0.1	0.0	2.6	0.0	0.0	0.0	0.0	0.9	0.0	1.5	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASE LOAD OPERATION, STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start: 01 Mar 1977 Lifetime Generation: 131431.8 GW(e).h
 Date of First Criticality: 28 Oct 1982 Cumulative Energy Availability Factor: 78.9%
 Date of Grid Connection: 30 Nov 1982 Cumulative Load Factor: 73.9%
 Date of Commercial Operation: 01 Feb 1984 Cumulative Unit Capability Factor: 80.0%
 Cumulative Energy Unavailability Factor: 21.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	3925.0	870.0	57.6	57.6	57.6	57.6	56.1	56.1	4835	60.1
1985	5978.2	870.0	84.5	71.6	82.1	70.4	78.4	67.8	7402	84.5
1986	6322.2	870.0	86.1	76.6	86.1	75.7	83.0	73.0	7609	86.9
1987	4914.1	870.0	73.7	75.8	72.9	75.0	64.5	70.8	6438	73.5
1988	5271.0	870.0	97.4	80.2	96.2	79.3	69.0	70.4	7195	81.9
1989	4734.3	870.0	64.4	77.5	63.6	76.7	62.1	69.0	5724	65.3
1990	5913.0	870.0	79.3	77.8	79.1	77.0	77.6	70.3	7043	80.4
1991	5339.2	905.0	68.0	76.5	67.7	75.8	67.3	69.9	6033	68.9
1992	5972.0	905.0	80.9	77.0	80.6	76.4	75.1	70.5	7133	81.2
1993	5651.7	905.0	77.7	77.1	73.3	76.0	71.3	70.6	6914	78.9
1994	5366.3	905.0	71.9	76.6	71.4	75.6	67.7	70.3	6347	72.5
1995	6333.9	905.0	85.6	77.4	84.4	76.4	79.9	71.1	7573	86.4
1996	6295.2	905.0	83.6	77.9	83.4	76.9	79.2	71.8	7476	85.1
1997	6093.3	905.0	81.9	78.2	81.8	77.3	76.9	72.1	7268	83.0
1998	6631.3	905.0	87.1	78.8	85.7	77.8	83.6	72.9	7759	88.6
1999	6214.0	905.0	84.3	79.1	82.1	78.1	78.4	73.3	7483	85.4
2000	6166.8	905.0	83.6	79.4	82.7	78.4	77.6	73.5	7416	84.4
2001	5769.0	905.0	82.6	79.6	81.2	78.5	72.8	73.5	7260	82.9
2002	6229.3	920.0	88.8	80.1	85.6	78.9	77.3	73.7	7671	87.6
2003	5181.7	905.0	71.0	79.6	68.4	78.4	65.4	73.3	6357	72.6
2004	6252.6	905.0	83.7	79.8	83.7	78.6	78.7	73.5	7536	85.8
2005	6465.8	905.0	84.5	80.0	83.9	78.9	81.5	73.9	7611	86.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		154			362	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	889			1037	71	
E. Testing of plant systems or components				6	1	
H. Nuclear regulatory requirements					5	
J. Grid failure or grid unavailability						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					56	
L. Human factor related		33				
Z. Others					1	
Subtotal	889	187	0	1043	500	5
Total		1076			1548	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		6
12. Reactor I&C Systems	7	6
13. Reactor Auxiliary Systems	7	30
14. Safety Systems	7	19
15. Reactor Cooling Systems	8	14
16. Steam generation systems		13
21. Fuel Handling and Storage Facilities	7	1
31. Turbine and auxiliaries	4	151
32. Feedwater and Main Steam System	106	9
41. Main Generator Systems		35
42. Electrical Power Supply Systems	8	32
XX. Miscellaneous Systems		6
Total	154	322

FR-41 CHINON-B-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 905.0 MW(e)
 Design Net Capacity: 870.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6659.6 GW(e).h
 Energy Availability Factor: 86.5%
 Load Factor: 84.0%
 Operating Factor: 90.0%
 Energy Unavailability Factor: 13.5%
 Total Off-line Time: 878 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	649.1	588.7	651.5	631.7	614.8	602.7	640.8	574.9	396.3	13.5	631.0	664.4	6659.6
EAF (%)	97.8	97.3	99.6	99.6	96.1	95.8	98.0	85.6	69.7	2.9	97.5	99.5	86.5
UCF (%)	97.8	99.7	99.8	99.7	96.1	96.3	98.8	93.2	76.1	2.9	97.6	99.8	88.0
LF (%)	96.4	96.8	96.8	97.0	91.3	92.5	95.2	85.4	60.8	2.0	96.8	98.7	84.0
OF (%)	98.1	99.9	99.9	100.0	100.0	100.0	100.0	96.5	76.9	9.9	100.0	100.0	90.0
EUF (%)	2.2	2.7	0.4	0.4	3.9	4.2	2.0	14.4	30.3	97.1	2.5	0.5	13.5
PUF (%)	0.1	0.1	0.0	0.1	0.1	0.0	0.3	0.0	23.6	75.5	2.5	0.1	8.6
UCLF (%)	2.1	0.2	0.1	0.3	3.8	3.6	1.0	6.8	0.3	21.5	0.0	0.1	3.4
XUF (%)	0.0	2.4	0.2	0.0	0.0	0.5	0.8	7.6	6.4	0.0	0.0	0.3	1.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start: 01 Mar 1977 Lifetime Generation: 126830.5 GW(e).h
 Date of First Criticality: 23 Sep 1983 Cumulative Energy Availability Factor: 79.8%
 Date of Grid Connection: 29 Nov 1983 Cumulative Load Factor: 74.2%
 Date of Commercial Operation: 01 Aug 1984 Cumulative Unit Capability Factor: 81.0%
 Cumulative Energy Unavailability Factor: 20.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	2423.0	870.0	91.7	91.7	91.7	91.7	75.8	75.8	2985	81.3
1985	5037.4	870.0	69.3	75.9	67.9	74.9	66.1	69.0	6201	70.8
1986	6215.1	870.0	86.4	80.3	86.0	79.5	81.6	74.2	7639	87.2
1987	5618.8	870.0	81.1	80.5	80.7	79.9	73.7	74.0	7171	81.9
1988	4425.0	870.0	68.4	77.8	67.3	77.0	57.9	70.4	5731	65.2
1989	6043.4	870.0	94.4	80.8	91.2	79.6	79.3	72.0	7873	89.9
1990	5217.0	870.0	84.4	81.4	84.1	80.3	68.5	71.5	6714	76.6
1991	3142.2	870.0	55.8	77.9	53.2	76.7	41.2	67.4	3921	44.8
1992	6295.4	870.0	82.0	78.4	80.8	77.2	82.4	69.2	7321	83.3
1993	5491.6	870.0	81.4	78.7	76.2	77.1	72.1	69.5	6867	78.4
1994	6174.6	905.0	84.7	79.3	83.9	77.7	77.9	70.3	7407	84.6
1995	6356.3	905.0	86.1	79.9	86.0	78.5	80.2	71.2	7741	88.4
1996	5287.6	905.0	69.6	79.1	69.4	77.7	66.5	70.8	6206	70.7
1997	6637.9	905.0	86.5	79.7	85.2	78.3	83.7	71.8	7622	87.0
1998	6186.4	905.0	80.4	79.7	79.9	78.4	78.0	72.3	7136	81.5
1999	5900.9	905.0	79.1	79.7	79.0	78.5	74.4	72.4	7075	80.8
2000	6177.0	905.0	81.2	79.8	80.8	78.6	77.7	72.7	7260	82.7
2001	6646.2	905.0	88.5	80.3	87.5	79.1	83.8	73.4	7846	89.6
2002	6155.6	920.0	86.4	80.6	85.6	79.5	76.4	73.5	7404	84.5
2003	5746.2	905.0	81.3	80.7	78.7	79.4	72.5	73.5	7163	81.8
2004	6133.4	905.0	80.9	80.7	80.6	79.5	77.2	73.7	7252	82.6
2005	6659.6	905.0	88.0	81.0	86.5	79.8	84.0	74.2	7882	90.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		107			417	
B. Refuelling without a maintenance	694				7	
C. Inspection, maintenance or repair combined with refuelling				998	12	
D. Inspection, maintenance or repair without refuelling				3		
E. Testing of plant systems or components				20	1	
H. Nuclear regulatory requirements					6	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					13	55
L. Human factor related		24				
Z. Others		29			4	
Subtotal	694	160	0	1021	460	55
Total		854			1536	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		16
12. Reactor I&C Systems	9	12
13. Reactor Auxiliary Systems		23
14. Safety Systems		33
15. Reactor Cooling Systems		72
16. Steam generation systems	60	3
21. Fuel Handling and Storage Facilities		4
31. Turbine and auxiliaries	14	64
32. Feedwater and Main Steam System		19
33. Circulating Water System		4
35. All other I&C Systems		1
41. Main Generator Systems		8
42. Electrical Power Supply Systems		65
XX. Miscellaneous Systems	24	2
Total	107	326

FR-56 CHINON-B-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 905.0 MW(e)
 Design Net Capacity: 905.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5595.4 GW(e).h
 Energy Availability Factor: 76.5%
 Load Factor: 70.6%
 Operating Factor: 83.2%
 Energy Unavailability Factor: 23.5%
 Total Off-line Time: 1473 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	533.3	552.1	556.1	591.5	474.7	441.6	154.2	0.0	542.7	595.9	553.0	600.2	5595.4
EAF (%)	92.3	96.0	94.6	95.1	72.8	68.0	23.5	0.0	86.1	98.6	99.9	94.8	76.5
UCF (%)	92.3	96.4	94.6	95.1	75.9	83.1	32.8	0.0	86.1	99.2	99.9	97.1	79.1
LF (%)	79.2	90.8	82.6	90.8	70.5	67.8	22.9	0.0	83.3	88.5	84.9	89.1	70.6
OF (%)	90.3	100.0	91.9	100.0	81.2	95.8	48.5	0.0	96.9	99.6	100.0	97.4	83.2
EUF (%)	7.7	4.0	5.4	4.9	27.2	32.0	76.5	100.0	13.9	1.4	0.1	5.2	23.5
PUF (%)	0.0	0.0	0.1	0.2	0.1	0.0	52.0	100.0	13.2	0.1	0.0	0.1	14.1
UCLF (%)	7.7	3.5	5.3	4.6	24.1	16.9	15.2	0.0	0.7	0.8	0.0	2.8	6.9
XUF (%)	0.0	0.5	0.0	0.0	3.1	15.1	9.4	0.0	0.0	0.5	0.0	2.3	2.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start: 01 Oct 1980 Lifetime Generation: 109863.0 GW(e).h
 Date of First Criticality: 18 Sep 1986 Cumulative Energy Availability Factor: 78.9%
 Date of Grid Connection: 20 Oct 1986 Cumulative Load Factor: 72.7%
 Date of Commercial Operation: 04 Mar 1987 Cumulative Unit Capability Factor: 80.6%
 Cumulative Energy Unavailability Factor: 21.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	3322.3	870.0	67.6	67.6	67.6	67.6	52.0	52.0	4383	59.7
1988	4413.0	905.0	61.5	64.2	58.9	62.8	55.5	53.9	5354	61.0
1989	5028.6	905.0	81.2	70.3	77.8	68.1	63.4	57.3	6125	69.9
1990	5417.6	905.0	69.2	70.0	69.1	68.4	68.3	60.2	6274	71.6
1991	7026.4	905.0	92.9	74.7	90.7	73.0	88.6	66.1	8204	93.7
1992	6091.5	905.0	87.5	76.9	85.6	75.2	76.6	67.9	7468	85.0
1993	5600.7	905.0	78.3	77.1	72.6	74.8	70.6	68.3	6827	77.9
1994	5064.0	905.0	76.2	77.0	75.5	74.9	63.9	67.8	6325	72.2
1995	6005.6	905.0	83.3	77.7	82.5	75.8	75.8	68.7	7177	81.9
1996	6278.0	905.0	87.2	78.7	86.9	76.9	79.0	69.7	7761	88.4
1997	5816.8	905.0	85.1	79.3	85.1	77.7	73.4	70.1	7249	82.8
1998	6345.6	905.0	84.1	79.7	81.3	78.0	80.0	70.9	7472	85.3
1999	5602.0	905.0	74.8	79.3	72.2	77.5	70.7	70.9	6656	76.0
2000	6330.1	905.0	83.1	79.6	82.5	77.9	79.6	71.5	7386	84.1
2001	6318.0	905.0	87.0	80.1	84.8	78.3	79.7	72.1	7665	87.5
2002	6720.4	920.0	90.1	80.7	87.6	78.9	83.4	72.8	7971	91.0
2003	5807.7	905.0	77.7	80.6	77.6	78.9	73.3	72.8	6954	79.4
2004	5784.4	905.0	82.5	80.7	82.3	79.1	72.8	72.8	7444	84.7
2005	5595.4	905.0	79.1	80.6	76.5	78.9	70.6	72.7	7287	83.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		167			348	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	1151			911	38	
D. Inspection, maintenance or repair without refuelling				46		
E. Testing of plant systems or components				40	2	
H. Nuclear regulatory requirements					13	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					21	
L. Human factor related					0	
Z. Others					4	
Subtotal	1151	167	0	997	430	0
Total		1318			1427	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		28
12. Reactor I&C Systems		5
13. Reactor Auxiliary Systems		43
14. Safety Systems		2
15. Reactor Cooling Systems		37
16. Steam generation systems		0
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries	167	77
32. Feedwater and Main Steam System		34
33. Circulating Water System		4
41. Main Generator Systems		37
42. Electrical Power Supply Systems		7
XX. Miscellaneous Systems		0
Total	167	275

FR-57 CHINON-B-4

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 905.0 MW(e)

Design Net Capacity: 905.0 MW(e)

Design Discharge Burnup: 33735 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5356.4 GW(e).h

Energy Availability Factor: 69.7%

Load Factor: 67.6%

Operating Factor: 80.3%

Energy Unavailability Factor: 30.3%

Total Off-line Time: 1730 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	614.3	557.1	560.3	259.4	77.8	562.9	0.0	588.6	611.5	560.5	320.1	643.9	5356.4
EAF (%)	94.7	93.8	83.5	40.3	12.7	89.7	0.8	93.2	97.8	86.3	49.1	97.1	69.7
UCF (%)	94.7	94.3	89.2	47.2	12.7	90.8	0.8	93.2	97.8	87.0	49.1	99.3	71.1
LF (%)	91.2	91.6	83.2	39.8	11.6	86.4	0.0	87.4	93.8	83.3	49.1	95.6	67.6
OF (%)	100.0	100.0	96.0	50.4	24.1	100.0	2.6	98.3	100.0	94.6	100.0	100.0	80.3
EUF (%)	5.3	6.2	16.5	59.7	87.3	10.3	99.2	6.8	2.2	13.7	50.9	2.9	30.3
PUF (%)	0.1	0.2	0.0	49.7	87.3	1.0	0.0	0.0	0.1	0.0	0.0	0.1	11.6
UCLF (%)	5.2	5.6	10.8	3.1	0.0	8.2	99.2	6.8	2.1	13.0	50.9	0.6	17.2
XUF (%)	0.0	0.5	5.7	6.9	0.0	1.2	0.0	0.0	0.0	0.7	0.0	2.2	1.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Feb 1981 Lifetime Generation: 105328.1 GW(e).h

Date of First Criticality: 13 Oct 1987 Cumulative Energy Availability Factor: 80.2%

Date of Grid Connection: 14 Nov 1987 Cumulative Load Factor: 74.0%

Date of Commercial Operation: 01 Apr 1988 Cumulative Unit Capability Factor: 81.9%

 Cumulative Energy Unavailability Factor: 19.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	3367.0	905.0	89.0	89.0	86.2	86.2	56.4	56.4	4475	67.8
1989	4688.1	905.0	63.6	74.5	60.4	71.5	59.1	57.9	5664	64.7
1990	6098.0	905.0	77.2	75.5	77.0	73.5	76.9	64.8	7003	79.9
1991	6340.0	905.0	80.0	76.7	79.2	75.0	80.0	68.9	7204	82.2
1992	6388.0	905.0	85.0	78.4	82.8	76.7	80.4	71.3	7544	85.9
1993	6016.9	905.0	85.8	79.7	80.1	77.3	75.9	72.1	7359	84.0
1994	5935.1	905.0	82.4	80.1	81.2	77.8	74.9	72.5	7196	82.1
1995	6566.0	905.0	88.2	81.2	87.9	79.1	82.8	73.8	7805	89.1
1996	6574.2	905.0	87.6	81.9	87.0	80.0	82.7	74.8	7764	88.4
1997	6345.4	905.0	88.7	82.6	85.6	80.6	80.0	75.4	7795	89.0
1998	5940.1	905.0	83.1	82.7	80.2	80.6	74.9	75.3	7326	83.6
1999	5596.3	905.0	89.9	83.3	88.2	81.2	70.6	74.9	7059	80.6
2000	5110.7	905.0	74.1	82.5	72.9	80.6	64.3	74.1	6445	73.4
2001	5765.0	905.0	81.3	82.5	79.9	80.5	72.7	74.0	7078	80.8
2002	6321.3	920.0	85.8	82.7	84.3	80.8	78.4	74.3	7584	86.6
2003	6431.8	905.0	87.7	83.0	86.6	81.2	81.1	74.7	7811	89.2
2004	5513.2	905.0	75.1	82.5	74.9	80.8	69.4	74.4	6883	78.4
2005	5356.4	905.0	71.1	81.9	69.7	80.2	67.6	74.0	7030	80.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		37			320	
B. Refuelling without a maintenance	910				0	
C. Inspection, maintenance or repair combined with refuelling				785	110	
E. Testing of plant systems or components				34		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	25	30
L. Human factor related		11			0	
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant , spare part delivery problems etc.)					7	
Z. Others					15	
Subtotal	910	48	0	819	477	30
Total		958			1326	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		17
12. Reactor I&C Systems		19
13. Reactor Auxiliary Systems		40
14. Safety Systems		7
15. Reactor Cooling Systems		65
16. Steam generation systems		2
31. Turbine and auxiliaries		32
32. Feedwater and Main Steam System		17
33. Circulating Water System		8
41. Main Generator Systems		58
42. Electrical Power Supply Systems	37	18
XX. Miscellaneous Systems		2
Total	37	285

FR-62 CHOOZ-B-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1500.0 MW(e)
 Design Net Capacity: 1455.0 MW(e)
 Design Discharge Burnup: 39000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9047.7 GW(e).h
 Energy Availability Factor: 69.6%
 Load Factor: 68.8%
 Operating Factor: 71.7%
 Energy Unavailability Factor: 30.4%
 Total Off-line Time: 2476 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	187.6	0.0	0.0	217.8	1105.7	1063.9	1019.5	1099.1	1072.2	1119.0	1075.7	1087.1	9047.7
EAF (%)	17.4	0.0	0.1	22.0	99.4	99.2	95.3	99.8	99.6	99.9	99.8	97.1	69.6
UCF (%)	22.6	0.0	0.1	22.1	99.6	99.9	95.9	100.0	100.0	100.0	99.9	100.0	70.5
LF (%)	16.8	0.0	0.0	20.2	99.1	98.5	91.4	98.5	99.3	100.1	99.6	97.4	68.8
OF (%)	22.6	0.0	1.7	34.9	100.0	100.0	96.2	100.0	100.0	100.0	100.0	100.0	71.7
EUF (%)	82.6	100.0	99.9	78.0	0.6	0.8	4.7	0.2	0.4	0.1	0.2	2.9	30.4
PUF (%)	77.4	100.0	11.4	11.4	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	16.2
UCLF (%)	0.0	0.0	88.4	66.6	0.3	0.0	4.2	0.0	0.0	0.0	0.0	0.0	13.4
XUF (%)	5.2	0.0	0.0	0.0	0.3	0.7	0.5	0.2	0.4	0.0	0.1	2.9	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Jan 1984 Lifetime Generation: 69104.4 GW(e).h
 Date of First Criticality: 25 Jul 1996 Cumulative Energy Availability Factor: 81.1%
 Date of Grid Connection: 30 Aug 1996 Cumulative Load Factor: 77.8%
 Date of Commercial Operation: 15 May 2000 Cumulative Unit Capability Factor: 83.2%
 Cumulative Energy Unavailability Factor: 18.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	8420.9	1455.0	96.9	96.9	96.9	96.9	98.4	98.4	5711	97.1
2001	9524.4	1455.0	78.0	85.6	75.0	83.8	74.7	84.2	6800	77.6
2002	9515.1	1455.0	82.4	84.4	81.0	82.7	74.7	80.7	6807	77.7
2003	10021.9	1500.0	89.4	85.8	85.6	83.5	76.3	79.4	7219	82.4
2004	10671.1	1500.0	86.7	86.0	83.6	83.6	81.0	79.8	7657	87.2
2005	9047.7	1500.0	70.5	83.2	69.6	81.1	68.8	77.8	6285	71.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1997 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		957			1096	
C. Inspection, maintenance or repair combined with refuelling	1320			339		
E. Testing of plant systems or components				193		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						10
L. Human factor related					4	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						19
Z. Others		144			21	
Subtotal	1320	1101	0	532	1121	29
Total		2421			1682	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1997 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
12. Reactor I&C Systems		97
13. Reactor Auxiliary Systems		32
15. Reactor Cooling Systems		98
16. Steam generation systems	144	
31. Turbine and auxiliaries		782
32. Feedwater and Main Steam System		2
41. Main Generator Systems		0
42. Electrical Power Supply Systems	813	11
XX. Miscellaneous Systems		5
Total	957	1032

FR-70 CHOOZ-B-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1500.0 MW(e)
 Design Net Capacity: 1455.0 MW(e)
 Design Discharge Burnup: 39000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10321.5 GW(e).h
 Energy Availability Factor: 81.6%
 Load Factor: 78.6%
 Operating Factor: 83.8%
 Energy Unavailability Factor: 18.4%
 Total Off-line Time: 1417 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1119.3	996.5	984.0	390.4	0.0	703.1	1009.3	1046.9	1035.4	1008.0	927.7	1101.0	10321.5
EAF (%)	100.0	98.6	88.3	40.0	0.0	66.5	96.4	99.9	99.9	96.8	94.3	100.0	81.6
UCF (%)	100.0	99.9	100.0	50.0	0.0	67.2	96.7	100.0	100.0	96.8	98.9	100.0	84.1
LF (%)	100.3	98.9	88.2	36.2	0.0	65.1	90.4	93.8	95.9	90.3	85.9	98.7	78.6
OF (%)	100.0	100.0	99.9	46.9	0.0	76.8	100.0	100.0	100.0	94.2	88.9	100.0	83.8
EUF (%)	0.1	1.4	11.7	60.0	100.0	33.5	3.6	0.1	0.1	3.2	5.7	0.0	18.4
PUF (%)	0.0	0.1	0.0	50.0	96.8	4.4	0.0	0.0	0.0	0.1	0.0	0.0	12.7
UCLF (%)	0.0	0.0	0.0	0.0	3.2	28.4	3.3	0.0	0.0	3.1	1.1	0.0	3.2
XUF (%)	0.0	1.4	11.7	10.0	0.0	0.7	0.3	0.1	0.1	0.0	4.7	0.0	2.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 31 Dec 1985 Lifetime Generation: 68079.0 GW(e).h
 Date of First Criticality: 10 Mar 1997 Cumulative Energy Availability Factor: 81.2%
 Date of Grid Connection: 10 Apr 1997 Cumulative Load Factor: 78.3%
 Date of Commercial Operation: 29 Sep 2000 Cumulative Unit Capability Factor: 84.8%
 Cumulative Energy Unavailability Factor: 18.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	3353.3	1455.0	77.6	77.6	77.6	77.6	78.7	78.7	2473	84.5
2001	10159.5	1455.0	83.4	82.0	80.4	79.7	79.7	79.5	7221	82.4
2002	9814.8	1455.0	83.0	82.4	81.5	80.5	77.0	78.4	7240	82.6
2003	10472.8	1500.0	87.6	84.0	83.3	81.3	79.7	78.8	7457	85.1
2004	10063.9	1500.0	88.0	85.0	80.1	81.0	76.4	78.2	7061	80.4
2005	10321.5	1500.0	84.1	84.8	81.6	81.2	78.6	78.3	7343	83.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1997 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	1080		22	315	1133	97
C. Inspection, maintenance or repair combined with refuelling						
E. Testing of plant systems or components						
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						
Z. Others		191			12	
Subtotal	1080	191	22	478	1145	97
Total	1293			1720		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1997 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		118
13. Reactor Auxiliary Systems		74
15. Reactor Cooling Systems		14
31. Turbine and auxiliaries		776
32. Feedwater and Main Steam System		0
33. Circulating Water System		66
41. Main Generator Systems		14
42. Electrical Power Supply Systems		16
XX. Miscellaneous Systems		27
Total	0	1105

FR-72 CIVAUX-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1495.0 MW(e)
Design Net Capacity: 1450.0 MW(e)
Design Discharge Burnup: 35000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9672.3 GW(e).h
Energy Availability Factor: 73.8%
Load Factor: 73.8%
Operating Factor: 78.2%
Energy Unavailability Factor: 26.2%
Total Off-line Time: 1906 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1126.4	736.1	1111.9	970.5	336.2	0.0	98.9	931.1	1049.0	1103.0	1085.5	1123.8	9672.3
EAF (%)	100.0	73.0	99.2	90.2	31.0	0.0	10.7	84.6	97.5	99.0	99.9	100.0	73.8
UCF (%)	100.0	73.0	100.0	99.8	38.2	0.0	10.7	94.7	98.3	100.0	100.0	100.0	76.3
LF (%)	101.3	73.3	100.0	90.2	30.2	0.0	8.9	83.7	97.5	99.0	100.8	101.0	73.8
OF (%)	100.0	73.5	99.9	100.0	38.6	0.0	34.4	91.7	100.0	100.0	100.0	100.0	78.2
EUF (%)	0.0	27.0	0.8	9.8	69.0	100.0	89.3	15.4	2.5	1.0	0.1	0.0	26.2
PUF (%)	0.0	0.1	0.0	0.0	58.2	100.0	19.6	3.6	0.0	0.0	0.0	0.0	15.2
UCLF (%)	0.0	26.9	0.0	0.2	3.5	0.0	69.7	1.7	1.7	0.0	0.0	0.0	8.6
XUF (%)	0.0	0.0	0.8	9.6	7.3	0.0	0.0	10.1	0.7	1.0	0.0	0.0	2.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 15 Oct 1988
Date of First Criticality: 29 Nov 1997
Date of Grid Connection: 24 Dec 1997
Date of Commercial Operation: 29 Jan 2002

Lifetime Generation: 55971.6 GW(e).h
Cumulative Energy Availability Factor: 80.9%
Cumulative Load Factor: 79.6%
Cumulative Unit Capability Factor: 82.3%
Cumulative Energy Unavailability Factor: 19.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002	9544.1	1450.0	81.0	81.0	79.8	79.8	75.1	75.1	7331	83.7
2003	10932.1	1495.0	84.1	82.6	83.1	81.4	83.5	79.4	7438	84.9
2004	11276.5	1495.0	88.0	84.4	86.9	83.3	85.9	81.6	7816	89.0
2005	9672.3	1495.0	76.3	82.3	73.8	80.9	73.8	79.6	6855	78.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2002 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		27			26	
C. Inspection, maintenance or repair combined with refuelling	1154			569		
E. Testing of plant systems or components				39		
L. Human factor related		168			3	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						12
Z. Others		299			71	
Subtotal	1154	494	0	608	100	12
Total		1648			720	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2002 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	27	12
13. Reactor Auxiliary Systems		8
14. Safety Systems		6
Total	27	26

FR-73 CIVAUX-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1495.0 MW(e)
 Design Net Capacity: 1450.0 MW(e)
 Design Discharge Burnup: 35000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9621.4 GW(e).h
 Energy Availability Factor: 73.5%
 Load Factor: 73.5%
 Operating Factor: 77.0%
 Energy Unavailability Factor: 26.5%
 Total Off-line Time: 2012 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1051.9	1008.1	1111.1	1060.0	1023.1	991.9	868.7	130.6	0.0	231.2	1022.4	1122.5	9621.4
EAF (%)	94.4	99.2	99.9	98.4	92.8	92.2	78.3	12.3	0.0	22.2	94.3	99.9	73.5
UCF (%)	94.4	99.2	100.0	98.4	93.3	97.5	93.4	15.9	0.0	23.6	97.6	99.9	75.9
LF (%)	94.6	100.3	99.9	98.5	92.0	92.2	78.1	11.7	0.0	20.8	95.0	100.9	73.5
OF (%)	95.2	100.0	99.9	100.0	95.3	98.5	94.0	16.3	0.0	31.5	95.7	100.0	77.0
EUF (%)	5.6	0.8	0.1	1.6	7.2	7.8	21.7	87.7	100.0	77.8	5.7	0.1	26.5
PUF (%)	3.6	0.0	0.0	0.0	0.0	0.0	0.0	84.1	73.8	7.7	0.1	0.0	14.2
UCLF (%)	2.0	0.8	0.0	1.6	6.7	2.5	6.6	0.0	26.3	68.7	2.4	0.1	9.9
XUF (%)	0.0	0.0	0.0	0.0	0.5	5.3	15.0	3.6	0.0	1.3	3.3	0.0	2.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Apr 1991 Lifetime Generation: 52986.5 GW(e).h
 Date of First Criticality: 27 Nov 1999 Cumulative Energy Availability Factor: 80.6%
 Date of Grid Connection: 24 Dec 1999 Cumulative Load Factor: 76.9%
 Date of Commercial Operation: 23 Apr 2002 Cumulative Unit Capability Factor: 81.9%
 Cumulative Energy Unavailability Factor: 19.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002	7199.1	1450.0	94.6	94.6	92.0	92.0	75.2	75.2	5751	87.1
2003	9084.8	1495.0	70.5	80.7	70.4	79.5	69.4	71.8	6542	74.7
2004	11698.6	1495.0	90.0	84.1	89.6	83.2	89.1	78.2	8042	91.6
2005	9621.4	1495.0	75.9	81.9	73.5	80.6	73.5	76.9	6748	77.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2002 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		554			125	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	1156			609		
E. Testing of plant systems or components				39		
L. Human factor related					10	
Z. Others		166			13	
Subtotal	1156	720	0	648	154	0
Total		1876			802	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2002 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	343	
13. Reactor Auxiliary Systems	135	35
15. Reactor Cooling Systems		62
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System		8
33. Circulating Water System	19	
42. Electrical Power Supply Systems	57	
Total	554	122

FR-42 CRUAS-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 915.0 MW(e)

Design Net Capacity: 880.0 MW(e)

Design Discharge Burnup: 33735 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5345.4 GW(e).h

Energy Availability Factor: 70.6%

Load Factor: 66.7%

Operating Factor: 72.0%

Energy Unavailability Factor: 29.4%

Total Off-line Time: 2449 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	506.4	605.5	308.4	0.0	0.0	135.4	644.6	606.0	628.5	604.6	636.3	669.7	5345.4
EAF (%)	97.0	99.1	46.6	0.0	0.0	21.8	98.1	94.7	99.8	91.8	99.3	99.8	70.6
UCF (%)	97.0	99.1	49.8	0.0	0.0	21.9	98.1	94.7	99.8	93.6	99.9	99.8	71.1
LF (%)	74.4	98.5	45.3	0.0	0.0	20.6	94.7	89.0	95.4	88.8	96.6	98.4	66.7
OF (%)	79.4	100.0	58.3	0.0	0.0	36.7	100.0	95.3	100.0	95.8	100.0	100.0	72.0
EUF (%)	3.0	0.9	53.4	100.0	100.0	78.2	1.9	5.3	0.2	8.2	0.7	0.2	29.4
PUF (%)	0.2	0.1	18.8	100.0	100.0	70.9	1.6	0.1	0.2	0.1	0.1	0.1	24.3
UCLF (%)	2.8	0.8	31.4	0.0	0.0	7.3	0.3	5.2	0.0	6.3	0.0	0.1	4.6
XUF (%)	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.7	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start: 01 Aug 1978 Lifetime Generation: 123440.5 GW(e).h

Date of First Criticality: 02 Apr 1983 Cumulative Energy Availability Factor: 80.2%

Date of Grid Connection: 29 Apr 1983 Cumulative Load Factor: 71.5%

Date of Commercial Operation: 02 Apr 1984 Cumulative Unit Capability Factor: 82.5%

 Cumulative Energy Unavailability Factor: 19.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	4800.0	880.0	100.0	100.0	82.6	82.6	82.6	82.6	6130	92.9
1985	5185.2	880.0	77.2	87.0	72.0	76.5	67.3	73.9	6615	75.5
1986	5888.0	880.0	87.6	87.2	86.0	80.0	76.4	74.8	7377	84.2
1987	5359.5	880.0	83.7	86.3	81.8	80.5	69.5	73.4	6860	78.3
1988	4025.0	880.0	98.0	88.8	96.7	83.9	52.1	68.9	5562	63.3
1989	5648.9	880.0	86.1	88.3	83.6	83.9	73.3	69.7	7239	82.6
1990	4983.5	880.0	84.8	87.8	82.6	83.7	64.6	68.9	6809	77.7
1991	4477.8	880.0	68.2	85.2	65.3	81.3	58.1	67.5	5762	65.8
1992	5739.4	880.0	81.0	84.8	77.8	80.9	74.2	68.3	7183	81.8
1993	6156.6	880.0	87.2	85.0	84.6	81.3	79.9	69.5	7353	83.9
1994	6181.2	915.0	84.5	85.0	84.3	81.6	77.1	70.2	7498	85.6
1995	4630.4	915.0	63.3	83.1	62.5	79.9	57.8	69.1	5624	64.2
1996	6258.5	915.0	83.9	83.1	83.0	80.1	77.9	69.8	7478	85.1
1997	5271.2	915.0	77.9	82.7	74.1	79.7	65.8	69.5	6784	77.4
1998	6387.3	915.0	90.8	83.3	89.5	80.4	79.7	70.2	7864	89.8
1999	5890.7	915.0	85.5	83.4	83.8	80.6	73.5	70.4	7367	84.1
2000	6320.5	915.0	87.6	83.7	86.0	80.9	78.6	70.9	7742	88.1
2001	5918.3	915.0	81.7	83.6	81.1	80.9	73.8	71.1	7264	82.9
2002	6069.8	915.0	80.6	83.4	80.5	80.9	75.7	71.4	7349	83.9
2003	6120.5	915.0	82.5	83.4	81.1	80.9	76.4	71.6	7403	84.5
2004	5866.1	915.0	77.0	83.0	76.1	80.7	73.0	71.7	6907	78.6
2005	5345.4	915.0	71.1	82.5	70.6	80.2	66.7	71.5	6311	72.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		71			451	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1941			865	22	
D. Inspection, maintenance or repair without refuelling				28		
E. Testing of plant systems or components				18		
G. Major back-fitting, refurbishment or upgrading activities without refuelling						1
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					40	22
L. Human factor related		19				
Z. Others		52			8	
Subtotal	1941	142	0	911	523	25
Total		2083			1459	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		22
12. Reactor I&C Systems		14
13. Reactor Auxiliary Systems		8
14. Safety Systems		13
15. Reactor Cooling Systems		22
16. Steam generation systems		30
31. Turbine and auxiliaries	55	30
32. Feedwater and Main Steam System	16	7
33. Circulating Water System		3
41. Main Generator Systems		264
42. Electrical Power Supply Systems		6
XX. Miscellaneous Systems		1
Total	71	420

FR-43 CRUAS-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 915.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6504.1 GW(e).h
 Energy Availability Factor: 83.0%
 Load Factor: 81.1%
 Operating Factor: 87.7%
 Energy Unavailability Factor: 17.0%
 Total Off-line Time: 1077 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	658.3	604.5	661.2	607.2	637.2	608.1	541.4	73.5	200.2	659.2	580.7	672.6	6504.1
EAF (%)	99.8	99.4	99.8	95.9	98.8	93.1	79.5	11.3	31.2	98.3	91.2	99.0	83.0
UCF (%)	99.9	99.9	99.8	95.9	98.8	99.9	99.7	16.0	31.2	98.3	91.7	99.0	85.8
LF (%)	96.7	98.3	97.1	92.2	93.6	92.3	79.5	10.8	30.4	96.7	88.1	98.8	81.1
OF (%)	100.0	100.0	99.9	96.5	100.0	100.0	100.0	16.1	45.4	100.0	95.3	100.0	87.7
EUF (%)	0.2	0.6	0.2	4.1	1.2	6.9	20.5	88.7	68.8	1.7	8.8	1.0	17.0
PUF (%)	0.1	0.1	0.2	0.4	0.1	0.1	0.3	84.0	60.9	0.6	0.0	0.1	12.3
UCLF (%)	0.0	0.0	0.0	3.8	1.0	0.0	0.0	0.0	7.9	1.1	8.3	0.8	1.9
XUF (%)	0.1	0.5	0.0	0.0	0.0	6.8	20.2	4.8	0.0	0.0	0.5	0.0	2.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start: 15 Nov 1978 Lifetime Generation: 122884.9 GW(e).h
 Date of First Criticality: 01 Aug 1984 Cumulative Energy Availability Factor: 79.7%
 Date of Grid Connection: 06 Sep 1984 Cumulative Load Factor: 73.3%
 Date of Commercial Operation: 01 Apr 1985 Cumulative Unit Capability Factor: 81.9%
 Cumulative Energy Unavailability Factor: 20.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	4844.4	880.0	98.3	98.3	96.0	96.0	83.4	83.4	6425	97.3
1986	4955.0	880.0	70.4	82.4	70.1	81.2	64.3	72.5	6258	71.4
1987	5559.9	900.0	79.8	81.4	79.1	80.4	70.5	71.8	6761	77.2
1988	5698.0	915.0	85.0	82.4	80.6	80.5	70.9	71.5	7176	81.7
1989	6298.5	915.0	86.2	83.2	83.3	81.1	78.6	73.0	7697	87.9
1990	6001.8	915.0	79.8	82.6	77.7	80.5	74.9	73.4	7114	81.2
1991	4099.9	915.0	55.3	78.5	53.7	76.5	51.2	70.0	4838	55.2
1992	5946.9	915.0	77.0	78.3	77.0	76.5	74.0	70.6	6910	78.7
1993	5441.0	915.0	78.1	78.3	73.5	76.2	67.9	70.2	6463	73.8
1994	5566.1	915.0	96.8	80.2	94.1	78.0	69.4	70.2	6765	77.2
1995	5366.8	915.0	76.3	79.8	72.4	77.5	67.0	69.9	6581	75.1
1996	6521.9	915.0	88.8	80.6	87.1	78.3	81.1	70.8	7870	89.6
1997	5176.1	915.0	80.9	80.6	76.5	78.2	64.6	70.3	6596	75.3
1998	6003.6	915.0	82.8	80.8	79.0	78.3	74.9	70.7	7396	84.4
1999	6393.8	915.0	88.1	81.3	85.3	78.7	79.8	71.3	7787	88.9
2000	6420.9	915.0	87.0	81.7	85.6	79.2	79.9	71.8	7755	88.3
2001	5914.4	915.0	79.7	81.5	76.5	79.0	73.8	72.0	7053	80.5
2002	6547.4	915.0	86.5	81.8	86.0	79.4	81.7	72.5	7776	88.8
2003	5727.9	915.0	75.8	81.5	75.6	79.2	71.5	72.5	6927	79.1
2004	6613.0	915.0	86.0	81.7	84.9	79.5	82.3	73.0	7661	87.2
2005	6504.1	915.0	85.8	81.9	83.0	79.7	81.1	73.3	7684	87.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					319	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	961			854	11	
E. Testing of plant systems or components				9	0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					48	
Z. Others		65			23	
Subtotal	961	65	0	863	404	0
Total	1026			1267		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		26
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		1
15. Reactor Cooling Systems		10
16. Steam generation systems		19
31. Turbine and auxiliaries		99
32. Feedwater and Main Steam System		9
33. Circulating Water System		1
35. All other I&C Systems		1
41. Main Generator Systems		135
XX. Miscellaneous Systems		1
Total	0	308

FR-44 CRUAS-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 915.0 MW(e)

Design Net Capacity: 880.0 MW(e)

Design Discharge Burnup: 33735 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6941.6 GW(e).h

Energy Availability Factor: 87.8%

Load Factor: 86.6%

Operating Factor: 89.8%

Energy Unavailability Factor: 12.2%

Total Off-line Time: 898 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	688.0	458.9	672.6	637.6	660.7	339.9	221.2	652.2	631.3	660.8	644.7	673.5	6941.6
EAF (%)	99.9	74.7	98.8	97.0	97.3	52.1	33.7	99.8	99.8	99.8	99.4	99.7	87.8
UCF (%)	99.9	74.7	98.8	97.0	98.3	56.6	33.7	99.8	99.8	99.8	99.9	99.7	88.3
LF (%)	101.1	74.6	98.8	96.8	97.1	51.6	32.5	95.8	95.8	96.9	97.9	98.9	86.6
OF (%)	100.0	75.9	99.9	97.6	100.0	56.7	45.4	100.0	100.0	100.0	100.0	100.0	89.8
EUF (%)	0.1	25.3	1.2	3.0	2.7	47.9	66.3	0.2	0.2	0.2	0.6	0.3	12.2
PUF (%)	0.1	0.1	0.4	0.1	0.3	43.4	50.6	0.1	0.1	0.2	0.1	0.3	8.0
UCLF (%)	0.0	25.2	0.8	2.9	1.5	0.0	15.8	0.2	0.0	0.0	0.0	0.0	3.7
XUF (%)	0.0	0.0	0.0	0.0	1.0	4.5	0.0	0.0	0.0	0.0	0.5	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 15 Apr 1979 Lifetime Generation: 122591.5 GW(e).h

Date of First Criticality: 09 Apr 1984 Cumulative Energy Availability Factor: 80.7%

Date of Grid Connection: 14 May 1984 Cumulative Load Factor: 71.8%

Date of Commercial Operation: 10 Sep 1984 Cumulative Unit Capability Factor: 83.5%

Cumulative Energy Unavailability Factor: 19.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	2311.0	880.0	91.9	91.9	91.9	91.9	89.7	89.7	2716	92.7
1985	5247.4	880.0	74.6	78.9	72.5	77.4	68.1	73.5	6557	74.9
1986	5967.1	880.0	89.5	83.5	89.2	82.5	77.4	75.2	7456	85.1
1987	4721.4	880.0	75.7	81.1	75.1	80.3	61.2	71.0	6013	68.6
1988	4773.0	880.0	99.9	85.5	98.6	84.5	61.7	68.9	6679	76.0
1989	5577.9	880.0	74.2	83.4	72.8	82.3	72.4	69.5	6571	75.0
1990	6129.2	915.0	87.5	84.0	85.2	82.8	76.5	70.6	7499	85.6
1991	6003.2	915.0	85.2	84.2	84.7	83.1	74.9	71.2	7374	84.2
1992	5174.6	915.0	73.2	82.8	71.0	81.6	64.4	70.4	6323	72.0
1993	5715.3	915.0	85.7	83.1	73.9	80.7	71.3	70.5	7232	82.6
1994	5014.0	915.0	78.9	82.7	78.1	80.5	62.6	69.7	6428	73.4
1995	6032.7	915.0	89.6	83.3	84.3	80.8	75.3	70.2	7525	85.9
1996	5882.2	915.0	99.7	84.7	91.9	81.7	73.2	70.5	7724	87.9
1997	5347.8	915.0	86.1	84.8	80.2	81.6	66.7	70.2	6961	79.5
1998	6281.4	915.0	81.7	84.6	78.7	81.4	78.4	70.8	7758	88.6
1999	6316.7	915.0	89.8	84.9	87.8	81.8	78.8	71.3	7654	87.4
2000	5494.0	915.0	81.4	84.7	79.0	81.7	68.4	71.1	6914	78.7
2001	5867.9	915.0	82.1	84.5	79.6	81.5	73.2	71.2	7254	82.8
2002	6052.0	915.0	82.1	84.4	80.9	81.5	75.5	71.5	7307	83.4
2003	5779.4	915.0	79.2	84.1	76.8	81.3	72.1	71.5	7146	81.6
2004	5081.3	915.0	65.9	83.2	64.1	80.4	63.2	71.1	6074	69.1
2005	6941.6	915.0	88.3	83.5	87.8	80.7	86.6	71.8	7863	89.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	604			942	157	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling					38	
D. Inspection, maintenance or repair without refuelling					6	
E. Testing of plant systems or components					8	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)		0			23	23
L. Human factor related						3
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						
Z. Others		115			28	
Subtotal	604	115	0	950	253	26
Total	719			1229		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		1
14. Safety Systems		2
15. Reactor Cooling Systems		61
16. Steam generation systems		14
31. Turbine and auxiliaries		35
32. Feedwater and Main Steam System		6
41. Main Generator Systems		3
42. Electrical Power Supply Systems		10
XX. Miscellaneous Systems		0
Total	0	138

FR-45 CRUAS-4

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 880.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6255.1 GW(e).h
 Energy Availability Factor: 79.6%
 Load Factor: 78.0%
 Operating Factor: 84.0%
 Energy Unavailability Factor: 20.4%
 Total Off-line Time: 1400 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	652.7	606.0	645.5	565.4	670.7	619.9	598.4	611.2	361.1	170.6	125.3	628.3	6255.1
EAF (%)	99.0	99.7	97.2	87.2	99.5	99.0	90.6	89.8	55.5	25.7	20.3	92.1	79.6
UCF (%)	99.6	100.0	97.2	87.2	99.5	99.2	90.8	99.8	67.7	25.7	20.3	92.1	81.6
LF (%)	95.9	98.6	94.8	85.8	98.5	94.1	87.9	89.8	54.8	25.1	19.0	92.3	78.0
OF (%)	100.0	100.0	98.1	92.4	100.0	100.0	92.3	100.0	70.6	38.3	21.0	95.4	84.0
EUF (%)	1.0	0.3	2.8	12.8	0.5	1.0	9.4	10.2	44.5	74.3	79.7	7.9	20.4
PUF (%)	0.1	0.0	0.5	0.0	0.1	0.8	4.0	0.2	23.5	69.3	0.5	0.2	8.4
UCLF (%)	0.3	0.0	2.3	12.8	0.4	0.1	5.2	0.0	8.8	5.0	79.3	7.7	10.1
XUF (%)	0.6	0.3	0.0	0.0	0.0	0.2	0.2	10.0	12.2	0.0	0.0	0.0	2.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASE LOAD OPERATION, STEAM GENERATOR PRESSURE LOSS

5. Historical Summary

Date of Construction Start: 01 Oct 1979 Lifetime Generation: 121749.4 GW(e).h
 Date of First Criticality: 01 Oct 1984 Cumulative Energy Availability Factor: 80.4%
 Date of Grid Connection: 27 Oct 1984 Cumulative Load Factor: 73.0%
 Date of Commercial Operation: 11 Feb 1985 Cumulative Unit Capability Factor: 82.7%
 Cumulative Energy Unavailability Factor: 19.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	5187.0	880.0	87.1	87.1	85.7	85.7	73.5	73.5	6759	84.3
1986	5452.6	880.0	80.3	83.6	76.7	81.0	70.7	72.1	6816	77.8
1987	5313.4	880.0	85.1	84.1	84.2	82.1	68.9	71.0	6888	78.6
1988	3247.0	880.0	76.0	82.0	74.2	80.1	42.0	63.6	4271	48.6
1989	4852.2	880.0	71.4	79.9	71.3	78.3	62.9	63.4	6025	68.8
1990	6215.3	880.0	86.4	81.0	86.0	79.6	80.6	66.3	7607	86.8
1991	6005.4	880.0	83.9	81.4	81.1	79.8	77.9	68.0	7259	82.9
1992	4953.6	880.0	66.0	79.5	65.0	77.9	64.1	67.5	5862	66.7
1993	5280.0	880.0	84.9	80.1	77.1	77.8	68.5	67.6	6653	75.9
1994	5552.1	915.0	86.8	80.8	83.8	78.5	69.3	67.8	6856	78.3
1995	6280.3	915.0	86.0	81.3	82.1	78.8	78.4	68.8	7375	84.2
1996	5886.5	915.0	80.7	81.2	79.4	78.9	73.2	69.2	7180	81.7
1997	5976.6	915.0	84.1	81.4	80.2	79.0	74.6	69.6	7334	83.7
1998	6629.2	915.0	88.7	82.0	85.5	79.5	82.7	70.6	7885	90.0
1999	5829.8	915.0	85.4	82.2	81.9	79.6	72.7	70.7	7159	81.7
2000	6630.7	915.0	89.7	82.7	88.4	80.2	82.5	71.5	7915	90.1
2001	5915.8	915.0	83.3	82.7	80.6	80.2	73.8	71.6	7172	81.9
2002	6399.6	915.0	83.4	82.8	82.9	80.4	79.8	72.1	7474	85.3
2003	6296.7	915.0	82.9	82.8	81.6	80.4	78.6	72.4	7371	84.1
2004	6377.4	915.0	83.4	82.8	80.6	80.4	79.3	72.8	7443	84.7
2005	6255.1	915.0	81.6	82.7	79.6	80.4	78.0	73.0	7360	84.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		392			213	
B. Refuelling without a maintenance	601			43	2	
C. Inspection, maintenance or repair combined with refuelling				791	62	
D. Inspection, maintenance or repair without refuelling				11		
E. Testing of plant systems or components				14		3
J. Grid failure or grid unavailability					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					13	52
Z. Others		92			6	
Subtotal	601	484	0	859	297	55
Total		1085			1211	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	10	7
13. Reactor Auxiliary Systems	10	21
14. Safety Systems		3
15. Reactor Cooling Systems		25
16. Steam generation systems	348	15
17. Safety I&C Systems (excluding reactor I&C)		0
21. Fuel Handling and Storage Facilities		4
31. Turbine and auxiliaries	21	27
32. Feedwater and Main Steam System		14
41. Main Generator Systems		39
42. Electrical Power Supply Systems		11
XX. Miscellaneous Systems	3	1
Total	392	167

FR-22 DAMPIERRE-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 890.0 MW(e)
 Design Net Capacity: 890.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5838.8 GW(e).h
 Energy Availability Factor: 82.8%
 Load Factor: 74.9%
 Operating Factor: 86.2%
 Energy Unavailability Factor: 17.2%
 Total Off-line Time: 1206 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	591.1	577.7	555.4	124.4	47.5	583.7	589.7	514.4	544.2	541.2	572.2	597.4	5838.8
EAF (%)	99.5	96.6	85.6	20.2	8.3	97.6	98.6	98.6	94.4	95.7	99.8	100.0	82.8
UCF (%)	99.5	100.0	100.0	27.0	8.3	98.8	99.5	99.2	94.7	96.2	99.8	100.0	85.2
LF (%)	89.3	96.6	83.9	19.4	7.2	91.1	89.1	77.7	84.9	81.7	89.3	90.2	74.9
OF (%)	92.9	100.0	99.9	26.9	22.3	100.0	100.0	100.0	100.0	96.9	100.0	96.6	86.2
EUf (%)	0.5	3.4	14.4	79.8	91.7	2.4	1.4	1.4	5.6	4.3	0.2	0.0	17.2
PUF (%)	0.2	0.0	0.0	73.0	67.3	0.5	0.0	0.1	0.1	0.2	0.1	0.0	11.8
UCLF (%)	0.3	0.0	0.0	0.0	24.4	0.7	0.5	0.7	5.2	3.6	0.1	0.0	3.0
XUF (%)	0.0	3.4	14.4	6.8	0.0	1.2	0.9	0.6	0.4	0.5	0.0	0.0	2.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Feb 1975 Lifetime Generation: 139567.6 GW(e).h
 Date of First Criticality: 15 Mar 1980 Cumulative Energy Availability Factor: 75.1%
 Date of Grid Connection: 23 Mar 1980 Cumulative Load Factor: 70.2%
 Date of Commercial Operation: 10 Sep 1980 Cumulative Unit Capability Factor: 76.6%
 Cumulative Energy Unavailability Factor: 24.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	1822.0	900.0	100.0	100.0	61.9	61.9	69.1	69.1	2141	73.1
1981	4322.1	900.0	55.9	66.9	55.9	57.4	54.8	58.4	5270	60.2
1982	5043.9	890.0	65.9	66.5	65.6	60.9	64.7	61.1	5994	68.4
1983	6263.0	890.0	85.9	72.3	85.9	68.3	80.3	66.8	7847	89.6
1984	5391.0	890.0	75.1	72.9	73.6	69.6	69.0	67.3	6777	77.2
1985	5738.5	890.0	80.9	74.4	80.6	71.6	73.6	68.5	7223	82.5
1986	5157.4	890.0	75.9	74.7	75.7	72.3	66.2	68.1	6673	76.2
1987	4780.2	890.0	67.9	73.7	65.9	71.4	61.3	67.2	6245	71.3
1988	3920.0	890.0	61.2	72.2	59.6	70.0	50.1	65.2	5239	59.6
1989	6467.6	890.0	98.6	75.0	97.9	73.0	83.0	67.1	8207	93.7
1990	2187.1	890.0	36.3	71.3	34.0	69.2	28.1	63.3	3110	35.5
1991	6390.9	890.0	82.2	72.3	81.8	70.3	82.0	64.9	7305	83.4
1992	6305.1	890.0	81.7	73.0	80.7	71.2	80.7	66.2	7293	83.0
1993	6702.8	890.0	86.6	74.1	86.4	72.3	86.0	67.7	7676	87.6
1994	5299.2	890.0	69.7	73.8	68.9	72.1	68.0	67.7	6185	70.6
1995	6194.0	890.0	84.4	74.4	82.9	72.8	79.4	68.5	7413	84.6
1996	5895.5	890.0	83.1	75.0	82.2	73.3	75.4	68.9	7378	84.0
1997	5172.1	890.0	72.3	74.8	71.9	73.3	66.3	68.8	6465	73.8
1998	6042.7	890.0	81.9	75.2	80.5	73.7	77.5	69.2	7294	83.3
1999	5492.4	890.0	76.8	75.3	75.3	73.7	70.4	69.3	6815	77.8
2000	6153.8	890.0	87.0	75.9	85.4	74.3	78.7	69.8	7676	87.4
2001	4125.1	890.0	56.8	75.0	56.7	73.5	52.9	69.0	5152	58.8
2002	6249.6	890.0	87.6	75.5	86.8	74.1	80.2	69.5	7586	86.6
2003	5733.3	890.0	78.3	75.7	76.8	74.2	73.5	69.6	6964	79.5
2004	6091.2	890.0	89.7	76.2	89.3	74.8	77.9	70.0	7840	89.3
2005	5838.8	890.0	85.2	76.6	82.8	75.1	74.9	70.2	7554	86.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					311	
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling	924			1145	40	
D. Inspection, maintenance or repair without refuelling				72	0	
E. Testing of plant systems or components				2	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					171	45
L. Human factor related					13	
Z. Others		152			13	
Subtotal	924	152	0	1219	556	45
Total		1076			1820	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		42
13. Reactor Auxiliary Systems		13
14. Safety Systems		9
15. Reactor Cooling Systems		50
16. Steam generation systems		59
17. Safety I&C Systems (excluding reactor I&C)		0
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries		12
32. Feedwater and Main Steam System		23
33. Circulating Water System		0
41. Main Generator Systems		63
42. Electrical Power Supply Systems		9
Total	0	283

FR-29 DAMPIERRE-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 890.0 MW(e)
 Design Net Capacity: 890.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5255.3 GW(e).h
 Energy Availability Factor: 75.8%
 Load Factor: 67.4%
 Operating Factor: 76.7%
 Energy Unavailability Factor: 24.2%
 Total Off-line Time: 2041 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	149.8	607.8	538.9	511.7	598.9	561.2	575.9	522.4	560.7	628.0	5255.3
EAF (%)	0.0	0.0	24.2	96.7	97.2	98.8	98.0	98.2	98.6	99.0	99.7	94.6	75.8
UCF (%)	0.0	0.0	24.2	96.8	99.7	99.4	99.2	99.0	99.2	99.3	99.8	95.2	76.3
LF (%)	0.0	0.0	22.6	94.8	81.4	79.8	90.4	84.7	89.9	78.9	87.5	94.8	67.4
OF (%)	0.0	0.0	34.5	100.0	100.0	100.0	100.0	100.0	100.0	90.3	90.8	100.0	76.7
EUAF (%)	100.0	100.0	75.8	3.3	2.8	1.2	2.0	1.8	1.4	1.0	0.3	5.4	24.2
PUF (%)	100.0	100.0	65.5	3.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1	22.0
UCLF (%)	0.0	0.0	10.3	0.2	0.2	0.5	0.8	1.0	0.8	0.7	0.1	4.7	1.6
XUF (%)	0.0	0.0	0.0	0.0	2.5	0.5	1.3	0.7	0.6	0.3	0.0	0.7	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Apr 1975 Lifetime Generation: 132509.9 GW(e).h
 Date of First Criticality: 05 Dec 1980 Cumulative Energy Availability Factor: 76.1%
 Date of Grid Connection: 10 Dec 1980 Cumulative Load Factor: 68.0%
 Date of Commercial Operation: 16 Feb 1981 Cumulative Unit Capability Factor: 78.6%
 Cumulative Energy Unavailability Factor: 23.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	5465.3	900.0	100.0	100.0	77.3	77.3	75.8	75.8	6670	83.2
1982	4110.8	890.0	53.0	75.6	53.0	64.7	52.7	63.8	4848	55.3
1983	5191.0	890.0	67.7	72.9	67.7	65.7	66.6	64.7	6139	70.1
1984	5781.0	890.0	76.6	73.9	76.1	68.4	73.9	67.1	6884	78.4
1985	6056.9	890.0	84.5	76.0	84.3	71.6	77.7	69.2	7400	84.5
1986	5658.5	890.0	82.2	77.0	82.0	73.3	72.6	69.8	6983	79.7
1987	4856.0	890.0	78.8	77.3	76.4	73.8	62.3	68.7	5715	65.2
1988	4583.0	890.0	95.1	79.6	92.4	76.1	58.6	67.4	6153	70.0
1989	5485.3	890.0	79.7	79.6	77.0	76.2	70.4	67.8	6927	79.1
1990	4869.5	890.0	69.9	78.6	67.8	75.4	62.5	67.2	6292	71.8
1991	4201.9	890.0	67.6	77.6	63.3	74.3	53.9	66.0	5407	61.7
1992	5049.8	890.0	75.9	77.5	74.7	74.3	64.6	65.9	6429	73.2
1993	5976.6	890.0	87.4	78.2	79.6	74.7	76.7	66.7	7625	87.0
1994	4445.0	890.0	84.8	78.7	84.8	75.4	57.0	66.0	5328	60.8
1995	5562.0	890.0	95.5	79.8	95.0	76.8	71.3	66.4	6952	79.4
1996	5761.0	890.0	84.2	80.1	81.5	77.0	73.7	66.8	7437	84.7
1997	4966.6	890.0	69.3	79.5	67.5	76.5	63.7	66.7	6204	70.8
1998	5855.9	890.0	80.3	79.5	78.3	76.6	75.1	67.1	7192	82.1
1999	5312.9	890.0	72.6	79.1	69.2	76.2	68.1	67.2	6688	76.3
2000	5866.1	890.0	77.6	79.1	76.0	76.2	75.0	67.6	7121	81.1
2001	5355.9	890.0	75.1	78.9	72.4	76.0	68.7	67.6	6593	75.3
2002	4307.5	890.0	56.3	77.8	56.0	75.1	55.3	67.1	5196	59.3
2003	6268.3	890.0	81.4	78.0	81.3	75.4	80.4	67.7	7631	87.1
2004	5983.9	890.0	95.7	78.7	93.7	76.1	76.5	68.0	7286	82.9
2005	5255.3	890.0	76.3	78.6	75.8	76.1	67.4	68.0	6719	76.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					350	
B. Refuelling without a maintenance				31	4	
C. Inspection, maintenance or repair combined with refuelling	1826			1040	18	
D. Inspection, maintenance or repair without refuelling				90		
E. Testing of plant systems or components				2	0	
H. Nuclear regulatory requirements					5	
J. Grid failure or grid unavailability					1	1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					104	25
L. Human factor related		20				
Z. Others		57			8	
Subtotal	1826	77	0	1163	490	26
Total		1903			1679	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		16
14. Safety Systems		27
15. Reactor Cooling Systems		52
16. Steam generation systems		34
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries		71
32. Feedwater and Main Steam System		14
41. Main Generator Systems		44
42. Electrical Power Supply Systems		31
Total	0	301

FR-30 DAMPIERRE-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 890.0 MW(e)
 Design Net Capacity: 890.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6242.4 GW(e).h
 Energy Availability Factor: 84.1%
 Load Factor: 80.1%
 Operating Factor: 87.1%
 Energy Unavailability Factor: 15.9%
 Total Off-line Time: 1134 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	663.5	577.3	516.4	610.9	627.4	612.1	557.4	194.2	36.7	627.6	581.5	637.5	6242.4
EAF (%)	99.6	99.1	99.9	99.4	99.1	96.0	84.2	29.8	7.0	98.6	97.3	99.9	84.1
UCF (%)	99.8	99.5	99.9	99.5	99.6	99.9	97.6	38.6	7.0	99.3	97.4	99.9	86.5
LF (%)	100.2	96.5	78.0	95.3	94.7	95.5	84.2	29.3	5.7	94.7	90.7	96.3	80.1
OF (%)	100.0	100.0	85.6	100.0	100.0	100.0	100.0	38.7	20.7	100.0	100.0	100.0	87.1
EUF (%)	0.4	0.9	0.1	0.6	0.9	4.0	15.8	70.2	93.0	1.4	2.7	0.1	15.9
PUF (%)	0.0	0.0	0.0	0.4	0.1	0.0	0.0	61.4	86.5	0.4	0.1	0.1	12.4
UCLF (%)	0.3	0.5	0.1	0.1	0.3	0.1	2.5	0.0	6.5	0.3	2.6	0.0	1.1
XUF (%)	0.2	0.4	0.1	0.1	0.5	3.9	13.4	8.8	0.0	0.7	0.0	0.0	2.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Sep 1975 Lifetime Generation: 139596.2 GW(e).h
 Date of First Criticality: 25 Jan 1981 Cumulative Energy Availability Factor: 76.7%
 Date of Grid Connection: 30 Jan 1981 Cumulative Load Factor: 72.0%
 Date of Commercial Operation: 27 May 1981 Cumulative Unit Capability Factor: 78.8%
 Cumulative Energy Unavailability Factor: 23.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	4043.7	900.0	100.0	100.0	78.0	78.0	76.4	76.4	4789	81.4
1982	3767.6	890.0	48.7	69.5	48.7	60.6	48.3	59.7	4632	52.9
1983	5517.0	890.0	72.7	70.7	72.7	65.1	70.8	63.8	6638	75.8
1984	6206.0	890.0	79.8	73.1	79.7	69.1	79.4	68.1	7121	81.1
1985	6364.4	890.0	85.1	75.7	84.9	72.4	81.6	71.0	7523	85.9
1986	6717.2	890.0	99.9	80.0	99.5	77.2	86.2	73.6	8330	95.1
1987	5019.5	890.0	82.4	80.3	79.3	77.5	64.4	72.2	6269	71.6
1988	4964.0	890.0	72.9	79.4	68.5	76.4	63.5	71.1	6435	73.3
1989	5912.9	890.0	82.2	79.7	78.4	76.6	75.8	71.7	7242	82.7
1990	5996.5	890.0	82.5	80.0	79.8	76.9	76.9	72.2	7348	83.9
1991	5124.1	890.0	70.0	79.0	69.6	76.2	65.7	71.6	6244	71.3
1992	4875.1	890.0	65.5	77.9	65.5	75.3	62.4	70.8	5814	66.2
1993	6148.8	890.0	82.8	78.3	82.8	75.9	78.9	71.4	7333	83.7
1994	5537.6	890.0	86.2	78.8	82.7	76.4	71.0	71.4	7013	80.1
1995	4773.5	890.0	83.4	79.2	80.2	76.7	61.2	70.7	6343	72.4
1996	5575.1	890.0	77.6	79.1	77.1	76.7	71.3	70.7	6940	79.0
1997	5720.9	890.0	81.0	79.2	78.3	76.8	73.4	70.9	7211	82.3
1998	5905.8	890.0	82.7	79.4	81.4	77.0	75.8	71.2	7210	82.3
1999	5779.4	890.0	80.9	79.5	78.2	77.1	74.1	71.3	7186	82.0
2000	4308.3	890.0	59.8	78.5	57.6	76.1	55.1	70.5	5378	61.2
2001	5993.0	890.0	77.8	78.4	77.4	76.2	76.9	70.8	7060	80.6
2002	5929.8	890.0	77.4	78.4	76.8	76.2	76.1	71.1	6877	78.5
2003	5346.9	890.0	69.0	78.0	68.9	75.9	68.6	71.0	6152	70.2
2004	6867.2	890.0	89.3	78.4	88.0	76.4	87.8	71.7	7920	90.2
2005	6242.4	890.0	86.5	78.8	84.1	76.7	80.1	72.0	7627	87.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					303	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	996			1219	11	
D. Inspection, maintenance or repair without refuelling				33	1	
E. Testing of plant systems or components				5	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					82	
Z. Others					8	
Subtotal	996	0	0	1257	421	0
Total	996			1678		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		9
14. Safety Systems		46
15. Reactor Cooling Systems		75
16. Steam generation systems		54
31. Turbine and auxiliaries		32
32. Feedwater and Main Steam System		9
33. Circulating Water System		1
41. Main Generator Systems		34
42. Electrical Power Supply Systems		6
Total	0	271

FR-31 DAMPIERRE-4

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 890.0 MW(e)
 Design Net Capacity: 890.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6566.9 GW(e).h
 Energy Availability Factor: 87.6%
 Load Factor: 84.2%
 Operating Factor: 90.8%
 Energy Unavailability Factor: 12.4%
 Total Off-line Time: 805 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	622.4	586.3	637.4	599.3	374.6	108.1	608.0	581.2	599.5	621.2	610.8	618.2	6566.9
EAF (%)	96.0	98.9	99.2	94.1	57.2	18.1	96.5	96.1	97.6	97.9	99.3	99.7	87.6
UCF (%)	96.0	99.1	99.2	97.2	64.6	18.1	97.1	96.5	97.9	99.0	99.4	99.7	88.7
LF (%)	94.0	98.0	96.3	93.5	56.6	16.9	91.8	87.8	93.6	93.7	95.3	93.4	84.2
OF (%)	97.7	99.7	99.9	100.0	64.7	27.5	100.0	100.0	100.0	100.0	100.0	100.0	90.8
EUF (%)	4.0	1.1	0.8	5.9	42.8	81.9	3.5	3.9	2.4	2.1	0.7	0.3	12.4
PUF (%)	0.1	0.0	0.4	0.0	35.4	67.9	0.9	0.0	0.1	0.0	0.0	0.0	8.7
UCLF (%)	4.0	0.9	0.5	2.8	0.0	14.0	1.9	3.5	2.0	1.1	0.6	0.2	2.6
XUF (%)	0.0	0.2	0.0	3.1	7.4	0.0	0.7	0.5	0.3	1.1	0.0	0.0	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Dec 1975 Lifetime Generation: 133072.1 GW(e).h
 Date of First Criticality: 05 Aug 1981 Cumulative Energy Availability Factor: 76.1%
 Date of Grid Connection: 18 Aug 1981 Cumulative Load Factor: 70.4%
 Date of Commercial Operation: 20 Nov 1981 Cumulative Unit Capability Factor: 78.0%
 Cumulative Energy Unavailability Factor: 23.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	1093.0	900.0	100.0	100.0	83.0	83.0	83.0	83.0	1300	88.8
1982	5745.6	890.0	81.8	84.4	81.8	82.0	73.7	75.0	7413	84.6
1983	4156.0	890.0	57.6	72.1	57.6	70.7	53.3	65.0	5207	59.4
1984	6276.0	890.0	87.1	76.8	85.1	75.3	80.3	69.8	7765	88.4
1985	5859.9	890.0	83.5	78.4	78.9	76.2	75.2	71.1	7387	84.3
1986	6664.9	890.0	88.8	80.4	88.5	78.5	85.5	73.9	7862	89.7
1987	5447.8	890.0	78.4	80.1	78.1	78.5	69.9	73.2	6795	77.6
1988	5086.0	890.0	82.9	80.5	79.9	78.7	65.1	72.1	6645	75.6
1989	5392.4	890.0	73.7	79.7	72.9	78.0	69.2	71.7	6621	75.6
1990	5153.0	890.0	91.2	80.9	87.3	79.0	66.1	71.1	6792	77.5
1991	6062.8	890.0	88.3	81.6	86.7	79.7	77.8	71.8	7612	86.9
1992	5331.5	890.0	76.7	81.2	74.5	79.3	68.2	71.5	6832	77.8
1993	4827.7	890.0	69.2	80.2	63.4	78.0	61.9	70.7	6103	69.7
1994	5264.0	890.0	80.7	80.3	79.5	78.1	67.5	70.4	7103	81.1
1995	5488.0	890.0	78.8	80.2	75.4	77.9	70.4	70.4	6997	79.9
1996	6118.5	890.0	83.7	80.4	82.9	78.2	78.3	70.9	7596	86.5
1997	5918.6	890.0	80.9	80.4	80.5	78.4	75.9	71.3	7178	81.9
1998	4506.5	890.0	60.6	79.3	59.0	77.2	57.8	70.5	5435	62.0
1999	4642.5	890.0	64.8	78.5	64.1	76.5	59.5	69.9	5770	65.9
2000	5598.7	890.0	76.0	78.3	75.2	76.4	71.6	70.0	6752	76.9
2001	5361.8	890.0	70.9	78.0	70.1	76.1	68.8	69.9	6422	73.3
2002	6134.5	890.0	85.3	78.3	83.8	76.5	78.7	70.3	7576	86.5
2003	5547.4	890.0	77.4	78.3	73.4	76.3	71.2	70.4	6759	77.2
2004	4531.8	890.0	61.3	77.5	59.4	75.6	58.0	69.8	5551	63.2
2005	6566.9	890.0	88.7	78.0	87.6	76.1	84.2	70.4	7956	90.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					514	
B. Refuelling without a maintenance	684				1	
C. Inspection, maintenance or repair combined with refuelling				1044	33	
D. Inspection, maintenance or repair without refuelling				6		
E. Testing of plant systems or components				5	1	
H. Nuclear regulatory requirements					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					86	12
Z. Others		101			12	
Subtotal	684	101	0	1055	648	12
Total		785			1715	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		61
12. Reactor I&C Systems		5
13. Reactor Auxiliary Systems		63
14. Safety Systems		7
15. Reactor Cooling Systems		10
16. Steam generation systems		124
31. Turbine and auxiliaries		30
32. Feedwater and Main Steam System		33
33. Circulating Water System		1
41. Main Generator Systems		106
42. Electrical Power Supply Systems		5
Total	0	445

FR-11 FESSENHEIM-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 880.0 MW(e)
Design Net Capacity: 880.0 MW(e)
Design Discharge Burnup: 44000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5448.4 GW(e).h
Energy Availability Factor: 75.3%
Load Factor: 70.7%
Operating Factor: 76.2%
Energy Unavailability Factor: 24.7%
Total Off-line Time: 2087 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	616.3	572.8	605.0	572.3	490.9	612.4	612.6	565.1	313.6	0.0	0.0	487.5	5448.4
EAF (%)	99.3	98.6	95.6	98.5	98.7	99.3	96.9	89.0	53.7	-0.1	0.0	75.0	75.3
UCF (%)	99.3	99.5	95.6	98.5	98.7	99.3	96.9	89.0	53.7	-0.1	0.0	75.0	75.4
LF (%)	94.1	96.9	92.4	90.3	75.0	96.7	93.6	86.3	49.5	0.0	0.0	74.5	70.7
OF (%)	100.0	100.0	96.6	100.0	83.5	100.0	100.0	95.7	53.8	0.0	0.0	85.2	76.2
EUF (%)	0.7	1.4	4.4	1.5	1.3	0.7	3.1	11.0	46.3	100.1	100.0	25.0	24.7
PUF (%)	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.1	46.3	100.1	37.1	9.0	16.5
UCLF (%)	0.7	0.5	0.7	1.5	1.3	0.7	3.1	10.9	0.0	0.0	62.9	16.0	8.2
XUF (%)	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start:	01 Sep 1971	Lifetime Generation:	145164.9 GW(e).h
Date of First Criticality:	07 Mar 1977	Cumulative Energy Availability Factor:	70.4%
Date of Grid Connection:	06 Apr 1977	Cumulative Load Factor:	66.8%
Date of Commercial Operation:	01 Jan 1978	Cumulative Unit Capability Factor:	73.9%
		Cumulative Energy Unavailability Factor:	29.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	6079.2	890.0	100.0	100.0	78.2	78.2	78.0	78.0	7302	83.4
1979	4542.0	890.0	100.0	100.0	58.8	68.5	58.3	68.1	5338	60.9
1980	5510.0	890.0	70.8	90.2	70.7	69.2	70.5	68.9	6350	72.3
1981	5065.3	890.0	65.3	84.0	65.3	68.2	65.0	67.9	5844	66.7
1982	1848.2	880.0	24.0	72.1	24.0	59.5	24.0	59.2	2138	24.4
1983	5690.0	880.0	75.3	72.7	75.3	62.1	73.8	61.6	6701	76.5
1984	6503.0	880.0	86.1	74.6	85.2	65.4	84.1	64.8	7731	88.0
1985	6044.6	880.0	80.4	75.3	79.8	67.2	78.4	66.5	7105	81.1
1986	5661.3	880.0	75.1	75.3	74.7	68.0	73.4	67.3	6702	76.5
1987	5029.6	880.0	74.1	75.2	73.6	68.6	65.2	67.1	6147	70.2
1988	5399.0	880.0	86.5	76.2	77.9	69.4	69.8	67.3	7069	80.5
1989	3253.3	880.0	46.1	73.7	43.4	67.3	42.2	65.2	4108	46.9
1990	5036.7	880.0	79.6	74.1	74.6	67.8	65.3	65.3	6481	74.0
1991	4053.5	880.0	55.7	72.8	55.5	66.9	52.6	64.4	4900	55.9
1992	4867.1	880.0	67.1	72.4	66.8	66.9	63.1	64.3	6079	69.4
1993	5548.7	880.0	81.0	73.0	74.6	67.4	72.0	64.8	7161	81.7
1994	6186.1	880.0	87.4	73.8	86.5	68.5	80.2	65.7	7508	85.7
1995	5856.1	880.0	85.5	74.5	84.7	69.4	76.0	66.2	6990	79.8
1996	6165.0	880.0	85.3	75.0	85.2	70.3	79.8	66.9	7544	85.9
1997	5826.8	880.0	81.6	75.4	81.5	70.8	75.6	67.4	7209	82.3
1998	4617.1	880.0	64.3	74.8	61.7	70.4	59.9	67.0	5727	65.4
1999	5228.8	880.0	71.2	74.7	70.8	70.4	67.8	67.1	6283	71.7
2000	5782.6	880.0	81.1	75.0	80.8	70.9	74.8	67.4	7145	81.3
2001	5507.5	880.0	79.6	75.1	78.4	71.2	71.4	67.6	7095	81.0
2002	2989.7	880.0	42.9	73.9	41.1	70.0	38.8	66.4	3832	43.7
2003	6985.2	880.0	98.2	74.8	96.5	71.0	90.6	67.3	8518	97.2
2004	3726.5	880.0	50.2	73.9	49.6	70.2	48.2	66.6	4500	51.2
2005	5448.4	880.0	75.4	73.9	75.3	70.4	70.7	66.8	6673	76.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		560			687	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	1322			1253	13	
D. Inspection, maintenance or repair without refuelling				57	11	
E. Testing of plant systems or components	1			9	1	
H. Nuclear regulatory requirements					59	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					7	5
L. Human factor related					105	
Subtotal	1323	560	0	1319	886	5
Total		1883			2210	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year	
11. Reactor and Accessories	69		315
12. Reactor I&C Systems	109		27
13. Reactor Auxiliary Systems			6
14. Safety Systems	98		14
15. Reactor Cooling Systems	48		52
16. Steam generation systems	72		31
21. Fuel Handling and Storage Facilities	24		0
31. Turbine and auxiliaries	116		84
32. Feedwater and Main Steam System			30
33. Circulating Water System	24		
41. Main Generator Systems			85
42. Electrical Power Supply Systems			5
XX. Miscellaneous Systems			0
Total	560		649

FR-12 FESSENHEIM-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 880.0 MW(e)
Design Net Capacity: 880.0 MW(e)
Design Discharge Burnup: 44000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6381.2 GW(e).h
Energy Availability Factor: 85.1%
Load Factor: 82.8%
Operating Factor: 89.2%
Energy Unavailability Factor: 14.9%
Total Off-line Time: 948 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	565.4	266.5	32.0	619.8	633.2	595.0	619.6	572.8	603.9	626.5	613.9	632.7	6381.2
EAF (%)	86.4	45.5	5.7	99.1	99.2	97.9	99.0	91.5	99.1	98.0	99.1	98.3	85.1
UCF (%)	99.4	64.3	5.7	99.1	99.2	97.9	99.0	91.5	99.1	98.0	99.1	98.3	87.6
LF (%)	86.4	45.1	4.9	97.8	96.7	93.9	94.6	87.5	95.3	95.6	96.9	96.6	82.8
OF (%)	100.0	64.4	12.2	100.0	100.0	99.7	100.0	92.7	100.0	100.0	100.0	100.0	89.2
EUF (%)	13.6	54.5	94.3	0.9	0.8	2.1	1.0	8.5	0.9	2.0	0.9	1.7	14.9
PUF (%)	0.0	35.7	72.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
UCLF (%)	0.6	0.0	21.4	0.2	0.8	2.1	1.0	8.5	0.9	2.0	0.9	1.7	3.4
XUF (%)	13.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Feb 1972
Date of First Criticality: 27 Jun 1977
Date of Grid Connection: 07 Oct 1977
Date of Commercial Operation: 01 Apr 1978

Lifetime Generation: 153007.0 GW(e).h
Cumulative Energy Availability Factor: 75.6%
Cumulative Load Factor: 70.9%
Cumulative Unit Capability Factor: 78.5%
Cumulative Energy Unavailability Factor: 24.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	4785.8	890.0	100.0	100.0	81.8	81.8	81.5	81.5	5648	85.6
1979	4521.0	890.0	100.0	100.0	58.7	68.6	58.0	68.1	5684	64.9
1980	5601.0	890.0	72.2	89.9	72.2	69.9	71.6	69.4	6603	75.2
1981	6055.0	890.0	79.4	87.1	79.4	72.5	77.7	71.6	7117	81.2
1982	6047.9	880.0	93.1	88.4	93.1	76.8	78.5	73.0	8247	94.1
1983	4315.0	880.0	58.5	83.2	58.2	73.6	56.0	70.1	5206	59.4
1984	6459.0	880.0	88.4	84.0	88.4	75.8	83.6	72.1	7860	89.5
1985	5917.2	880.0	80.0	83.5	78.6	76.1	76.8	72.7	7248	82.7
1986	5522.5	880.0	73.4	82.3	73.2	75.8	71.6	72.5	6573	75.0
1987	6150.1	880.0	83.6	82.5	82.6	76.5	79.8	73.3	7335	83.7
1988	4830.0	880.0	72.4	81.5	69.8	75.9	62.5	72.3	6158	70.1
1989	5643.4	880.0	97.0	82.8	96.2	77.6	73.2	72.4	6944	79.3
1990	3552.4	880.0	52.0	80.4	49.6	75.4	46.1	70.3	4612	52.6
1991	5308.4	880.0	73.3	79.9	72.8	75.2	68.9	70.2	6537	74.6
1992	2202.0	880.0	29.7	76.5	29.7	72.1	28.6	67.4	2699	30.8
1993	5775.1	880.0	81.0	76.8	77.6	72.5	74.9	67.9	7167	81.8
1994	5294.9	880.0	98.5	78.1	98.2	74.0	68.7	67.9	6807	77.7
1995	5098.3	880.0	71.5	77.7	70.5	73.8	66.1	67.8	6305	72.0
1996	6192.1	880.0	84.9	78.1	84.4	74.4	80.1	68.5	7515	85.6
1997	5808.6	880.0	80.6	78.2	80.0	74.7	75.3	68.8	6982	79.7
1998	5597.0	880.0	75.9	78.1	73.7	74.6	72.6	69.0	6797	77.6
1999	6392.6	880.0	87.1	78.5	86.4	75.2	82.9	69.6	7708	88.0
2000	3730.4	880.0	51.4	77.3	51.1	74.1	48.3	68.7	4514	51.4
2001	6699.9	880.0	88.6	77.8	87.3	74.7	86.9	69.5	7876	89.9
2002	6562.6	880.0	87.1	78.2	85.6	75.1	85.1	70.1	7729	88.2
2003	4589.5	880.0	60.7	77.5	60.7	74.5	59.5	69.7	5434	62.0
2004	6913.7	880.0	94.5	78.1	93.6	75.2	89.4	70.4	8435	96.0
2005	6381.2	880.0	87.6	78.5	85.1	75.6	82.8	70.9	7813	89.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					499	
B. Refuelling without a maintenance	734				1	
C. Inspection, maintenance or repair combined with refuelling				1179	7	
D. Inspection, maintenance or repair without refuelling				60		
E. Testing of plant systems or components				14	1	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				1		
H. Nuclear regulatory requirements					3	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					6	31
Z. Others		159			0	
Subtotal	734	159	0	1254	517	31
Total		893			1802	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		54
12. Reactor I&C Systems		16
13. Reactor Auxiliary Systems		15
14. Safety Systems		15
15. Reactor Cooling Systems		29
16. Steam generation systems		123
31. Turbine and auxiliaries		39
32. Feedwater and Main Steam System		43
33. Circulating Water System		5
41. Main Generator Systems		71
42. Electrical Power Supply Systems		6
XX. Miscellaneous Systems		2
Total	0	418

FR-47 FLAMANVILLE-2**Operator:** EDF (ELECTRICITE DE FRANCE)**Contractor:** FRAM (FRAMATOME)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9779.1 GW(e).h

Energy Availability Factor: 86.7%

Load Factor: 83.9%

Operating Factor: 90.1%

Energy Unavailability Factor: 13.3%

Total Off-line Time: 866 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	913.6	859.3	937.3	934.3	966.1	919.2	938.0	838.8	218.1	484.6	826.1	943.8	9779.1
EAF (%)	99.8	97.5	96.6	100.0	100.0	98.7	94.8	84.8	23.3	50.5	94.4	100.0	86.7
UCF (%)	99.8	99.9	97.2	100.0	100.0	98.7	98.9	100.0	29.9	50.6	94.4	100.0	89.1
LF (%)	92.3	96.1	94.7	97.6	97.6	96.0	94.8	84.8	22.8	49.0	86.3	95.4	83.9
OF (%)	100.0	100.0	97.3	100.0	100.0	99.2	99.3	100.0	30.4	60.3	94.6	100.0	90.1
EUF (%)	0.2	2.5	3.4	0.0	0.0	1.3	5.2	15.2	76.7	49.5	5.6	0.0	13.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.1	44.1	0.0	0.0	9.5
UCLF (%)	0.2	0.0	2.8	0.0	0.0	1.3	1.1	0.0	0.0	5.3	5.6	0.0	1.4
XUF (%)	0.0	2.4	0.5	0.0	0.0	0.0	4.1	15.2	6.7	0.0	0.0	0.0	2.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 May 1980 **Lifetime Generation:** 155781.7 GW(e).h

Date of First Criticality: 12 Jun 1986 **Cumulative Energy Availability Factor:** 76.2%

Date of Grid Connection: 18 Jul 1986 **Cumulative Load Factor:** 69.6%

Date of Commercial Operation: 09 Mar 1987 **Cumulative Unit Capability Factor:** 77.3%

Cumulative Energy Unavailability Factor: 23.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	5578.8	1290.0	88.9	88.9	88.7	88.7	58.9	58.9	5094	69.4
1988	7106.0	1330.0	67.4	77.1	65.4	75.8	60.8	60.0	5674	64.6
1989	4824.5	1330.0	50.6	67.7	48.7	66.2	41.4	53.4	3836	43.8
1990	7819.6	1330.0	76.6	70.0	75.7	68.7	67.1	57.0	6392	73.0
1991	7965.7	1330.0	72.3	70.5	70.6	69.1	68.4	59.3	6432	73.4
1992	8842.4	1330.0	78.2	71.8	78.0	70.6	75.7	62.2	6962	79.3
1993	7985.2	1330.0	71.4	71.8	69.1	70.4	68.5	63.1	6338	72.4
1994	8384.3	1330.0	75.4	72.2	75.3	71.0	72.0	64.2	6711	76.6
1995	8962.4	1330.0	82.1	73.3	81.4	72.2	76.9	65.7	7264	82.9
1996	9387.5	1330.0	87.5	74.8	86.6	73.7	80.4	67.2	7685	87.5
1997	8546.0	1330.0	95.4	76.7	95.3	75.7	73.4	67.7	7351	83.9
1998	5656.6	1330.0	55.4	74.9	55.4	74.0	48.6	66.1	4880	55.7
1999	7248.9	1330.0	67.4	74.3	65.2	73.3	62.2	65.8	6034	68.9
2000	9907.9	1330.0	94.2	75.8	93.7	74.8	84.8	67.2	8122	92.5
2001	8565.1	1330.0	77.9	75.9	76.2	74.9	73.5	67.6	6863	78.3
2002	8502.3	1330.0	78.1	76.0	77.9	75.1	73.0	68.0	6839	78.1
2003	10065.3	1330.0	93.6	77.1	93.4	76.1	86.4	69.1	8365	95.5
2004	7499.8	1330.0	68.3	76.6	66.8	75.6	64.2	68.8	6125	69.7
2005	9779.1	1330.0	89.1	77.3	86.7	76.2	83.9	69.6	7894	90.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		22			655	
B. Refuelling without a maintenance	766				3	
C. Inspection, maintenance or repair combined with refuelling				899	37	
D. Inspection, maintenance or repair without refuelling				109		
E. Testing of plant systems or components				26	1	0
G. Major back-fitting, refurbishment or upgrading activities without refuelling				1		
H. Nuclear regulatory requirements					17	
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					22	3
L. Human factor related		2			0	
Z. Others		21				
Subtotal	766	45	0	1035	735	6
Total		811			1776	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		12
12. Reactor I&C Systems		21
13. Reactor Auxiliary Systems		47
14. Safety Systems		23
15. Reactor Cooling Systems		218
16. Steam generation systems		43
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries	22	96
32. Feedwater and Main Steam System		38
41. Main Generator Systems		62
42. Electrical Power Supply Systems		60
XX. Miscellaneous Systems		5
Total	22	625

FR-46 FLAMANVILLE-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9099.9 GW(e).h

Energy Availability Factor: 83.3%

Load Factor: 78.1%

Operating Factor: 87.1%

Energy Unavailability Factor: 16.7%

Total Off-line Time: 1134 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	959.8	833.6	818.5	17.4	613.7	708.8	876.6	833.1	854.2	888.5	748.9	946.8	9099.9
EAF (%)	99.2	93.3	82.9	2.6	63.5	79.1	99.8	99.7	99.4	96.8	82.4	99.5	83.3
UCF (%)	99.2	99.9	100.0	3.3	63.8	79.2	99.8	99.9	99.8	99.5	82.6	99.5	85.6
LF (%)	97.0	93.3	82.7	1.8	62.0	74.0	88.6	84.2	89.2	89.7	78.2	95.7	78.1
OF (%)	100.0	100.0	99.9	3.8	72.0	83.5	100.0	100.0	100.0	100.0	84.3	100.0	87.1
EUF (%)	0.8	6.7	17.1	97.4	36.5	20.9	0.2	0.3	0.6	3.2	17.6	0.5	16.7
PUF (%)	0.0	0.0	0.0	96.7	35.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0	11.0
UCLF (%)	0.8	0.1	0.0	0.0	0.4	20.8	0.2	0.1	0.2	0.5	17.4	0.5	3.4
XUF (%)	0.0	6.7	17.1	0.7	0.4	0.1	0.0	0.3	0.4	2.7	0.2	0.0	2.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Dec 1979 Lifetime Generation: 158126.4 GW(e).h

Date of First Criticality: 29 Sep 1985 Cumulative Energy Availability Factor: 74.6%

Date of Grid Connection: 04 Dec 1985 Cumulative Load Factor: 69.4%

Date of Commercial Operation: 01 Dec 1986 Cumulative Unit Capability Factor: 77.2%

 Cumulative Energy Unavailability Factor: 25.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	965.9	1290.0	97.3	97.3	97.3	97.3	100.6	100.6	726	97.6
1987	7150.8	1290.0	63.2	65.9	62.2	64.9	63.3	66.2	5656	64.6
1988	7175.0	1330.0	67.4	66.6	66.0	65.5	61.4	63.9	5757	65.5
1989	8775.2	1330.0	81.0	71.3	80.6	70.4	75.3	67.6	7146	81.6
1990	7090.0	1330.0	67.0	70.3	65.7	69.2	60.9	65.9	6360	72.6
1991	5882.9	1330.0	68.4	69.9	59.4	67.3	50.5	62.9	5481	62.6
1992	7606.8	1330.0	66.2	69.3	66.2	67.1	65.1	63.3	5901	67.2
1993	9301.8	1330.0	96.8	73.2	87.2	70.0	79.8	65.6	7936	90.6
1994	7145.8	1330.0	80.1	74.0	75.3	70.6	61.3	65.1	6515	74.4
1995	7665.1	1330.0	77.4	74.4	73.2	70.9	65.8	65.2	6654	76.0
1996	8598.3	1330.0	84.6	75.4	77.8	71.6	73.6	66.0	7050	80.3
1997	6853.9	1330.0	63.9	74.4	62.3	70.8	58.8	65.3	5529	63.1
1998	9469.4	1330.0	86.7	75.4	86.7	72.1	81.3	66.7	7855	89.7
1999	6979.4	1330.0	66.1	74.7	64.4	71.5	59.9	66.2	5906	67.4
2000	8035.3	1330.0	75.6	74.8	74.5	71.7	68.8	66.3	6607	75.2
2001	10038.5	1330.0	92.6	75.9	92.5	73.1	86.2	67.7	8126	92.8
2002	8141.8	1330.0	75.5	75.9	73.1	73.1	69.9	67.8	6736	76.9
2003	7510.8	1330.0	68.2	75.5	67.8	72.8	64.5	67.6	6090	69.5
2004	10630.0	1330.0	98.2	76.7	96.8	74.1	91.0	68.9	8668	98.7
2005	9099.9	1330.0	85.6	77.2	83.3	74.6	78.1	69.4	7627	87.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		13			766	
B. Refuelling without a maintenance	905				2	
C. Inspection, maintenance or repair combined with refuelling				931		
D. Inspection, maintenance or repair without refuelling				37		
E. Testing of plant systems or components				13	1	
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					24	37
Z. Others					2	
Subtotal	905	13	0	981	795	39
Total		918			1815	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		140
12. Reactor I&C Systems	13	42
13. Reactor Auxiliary Systems		19
14. Safety Systems		14
15. Reactor Cooling Systems		28
16. Steam generation systems		3
31. Turbine and auxiliaries		179
32. Feedwater and Main Steam System		58
33. Circulating Water System		4
41. Main Generator Systems		157
42. Electrical Power Supply Systems		48
XX. Miscellaneous Systems		4
Total	13	696

FR-61 GOLFECH-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1310.0 MW(e)
 Design Net Capacity: 1310.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8653.5 GW(e).h
 Energy Availability Factor: 78.7%
 Load Factor: 75.4%
 Operating Factor: 80.1%
 Energy Unavailability Factor: 21.3%
 Total Off-line Time: 1747 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	907.4	880.1	872.0	902.4	819.1	234.7	0.0	276.8	905.8	950.4	933.0	971.7	8653.5
EAF (%)	94.7	99.9	90.2	100.0	100.0	33.3	0.0	30.9	99.0	100.0	100.0	99.5	78.7
UCF (%)	94.7	99.9	90.2	100.0	100.0	33.3	0.0	30.9	99.0	100.0	100.0	99.5	78.7
LF (%)	93.1	100.0	89.5	95.7	84.0	24.9	0.0	28.4	96.0	97.4	98.9	99.7	75.4
OF (%)	95.7	100.0	96.8	100.0	100.0	33.8	0.0	37.2	100.0	100.0	100.0	99.6	80.1
EUF (%)	5.3	0.1	9.8	0.0	0.0	66.7	100.0	69.1	1.0	0.0	0.0	0.5	21.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	66.7	100.0	69.1	0.0	0.0	0.0	0.0	19.9
UCLF (%)	5.4	0.1	9.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.5	1.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 17 Nov 1982 Lifetime Generation: 129897.4 GW(e).h
 Date of First Criticality: 24 Apr 1990 Cumulative Energy Availability Factor: 81.5%
 Date of Grid Connection: 07 Jun 1990 Cumulative Load Factor: 74.5%
 Date of Commercial Operation: 01 Feb 1991 Cumulative Unit Capability Factor: 84.5%
 Cumulative Energy Unavailability Factor: 18.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1991	8871.6	1310.0	97.8	97.8	96.1	96.1	84.5	84.5	7608	94.9
1992	7065.9	1310.0	67.9	82.1	64.3	79.5	61.4	72.4	6128	69.8
1993	7925.6	1310.0	82.6	82.3	72.7	77.1	69.1	71.3	7143	81.5
1994	7756.1	1310.0	81.3	82.0	77.8	77.3	67.6	70.3	7215	82.4
1995	7897.8	1310.0	83.5	82.3	75.6	77.0	68.8	70.0	7005	80.0
1996	8862.4	1310.0	84.8	82.8	83.2	78.0	77.0	71.2	7598	86.5
1997	9151.6	1310.0	94.6	84.5	94.5	80.4	79.7	72.4	8000	91.3
1998	8576.6	1310.0	84.7	84.5	81.1	80.5	74.7	72.7	7472	85.3
1999	7926.3	1310.0	80.8	84.1	77.2	80.1	69.1	72.3	6837	78.0
2000	8766.3	1310.0	94.1	85.1	93.9	81.5	76.2	72.7	7901	89.9
2001	7511.9	1310.0	69.1	83.6	68.4	80.3	65.5	72.0	6147	70.2
2002	9242.4	1310.0	82.5	83.5	81.4	80.4	80.5	72.8	7301	83.3
2003	10342.7	1310.0	99.2	84.8	93.9	81.5	90.1	74.1	8252	94.2
2004	9051.1	1310.0	87.6	85.0	84.7	81.7	78.7	74.4	7721	87.9
2005	8653.5	1310.0	78.7	84.5	78.7	81.5	75.4	74.5	7014	80.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		28			203	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	1692			839	2	
D. Inspection, maintenance or repair without refuelling				70		
E. Testing of plant systems or components				74		
H. Nuclear regulatory requirements					3	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					11	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						25
Z. Others					5	
Subtotal	1692	28	0	983	227	25
Total		1720			1235	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems	28	4
13. Reactor Auxiliary Systems		9
14. Safety Systems		13
15. Reactor Cooling Systems		33
16. Steam generation systems		8
21. Fuel Handling and Storage Facilities		23
31. Turbine and auxiliaries		9
32. Feedwater and Main Steam System		7
33. Circulating Water System		7
35. All other I&C Systems		0
41. Main Generator Systems		48
42. Electrical Power Supply Systems		3
Total	28	171

FR-68 GOLFECH-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1310.0 MW(e)
 Design Net Capacity: 1310.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9936.3 GW(e).h
 Energy Availability Factor: 98.9%
 Load Factor: 86.6%
 Operating Factor: 99.5%
 Energy Unavailability Factor: 1.1%
 Total Off-line Time: 46 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	857.1	853.6	900.0	828.4	742.3	712.6	763.9	723.0	805.3	881.7	918.6	949.8	9936.3
EAF (%)	100.0	99.8	100.0	100.0	96.5	99.8	95.3	99.5	99.1	99.6	99.9	97.4	98.9
UCF (%)	100.0	99.8	100.0	100.0	96.5	99.8	96.0	99.5	99.1	100.0	99.9	99.9	99.2
LF (%)	87.9	97.0	92.3	87.8	76.2	75.6	78.4	74.2	85.4	90.3	97.4	97.5	86.6
OF (%)	100.0	100.0	99.9	100.0	97.3	100.0	96.6	100.0	100.0	100.0	100.0	100.0	99.5
EUF (%)	0.0	0.2	0.0	0.0	3.5	0.2	4.7	0.5	0.9	0.4	0.1	2.6	1.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.1	0.0	0.0	3.5	0.1	4.0	0.5	0.9	0.0	0.1	0.1	0.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.4	0.0	2.5	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Oct 1984 Lifetime Generation: 104259.4 GW(e).h
 Date of First Criticality: 21 May 1993 Cumulative Energy Availability Factor: 84.0%
 Date of Grid Connection: 18 Jun 1993 Cumulative Load Factor: 74.6%
 Date of Commercial Operation: 04 Mar 1994 Cumulative Unit Capability Factor: 85.4%
 Cumulative Energy Unavailability Factor: 16.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1994	6507.6	1310.0	99.7	99.7	99.4	99.4	67.6	67.6	5912	80.5
1995	7030.1	1310.0	66.7	81.7	62.9	79.6	61.3	64.2	6002	68.5
1996	9016.4	1310.0	84.7	82.8	83.6	81.0	78.4	69.2	7549	85.9
1997	8649.9	1310.0	83.7	83.0	80.2	80.8	75.4	70.8	7414	84.6
1998	8359.6	1310.0	85.1	83.4	82.9	81.2	72.8	71.2	7222	82.4
1999	9516.9	1310.0	98.0	85.9	97.7	84.0	82.9	73.2	8407	96.0
2000	8877.6	1310.0	84.5	85.7	81.8	83.7	77.1	73.8	7535	85.8
2001	8958.3	1310.0	85.3	85.7	84.3	83.8	78.1	74.3	7586	86.6
2002	9847.1	1310.0	97.3	87.0	97.3	85.3	85.8	75.6	8553	97.6
2003	7614.9	1310.0	77.7	86.0	75.2	84.3	66.4	74.7	7115	81.2
2004	7093.7	1310.0	65.7	84.2	65.7	82.6	61.6	73.5	6129	69.8
2005	9936.3	1310.0	99.2	85.4	98.9	84.0	86.6	74.6	8715	99.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1993 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		13			323	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling				788	2	
E. Testing of plant systems or components				62		
H. Nuclear regulatory requirements					0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					58	
L. Human factor related		14			2	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						16
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)					6	
Subtotal	0	27	0	850	392	16
Total		27			1258	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1993 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		46
13. Reactor Auxiliary Systems		6
15. Reactor Cooling Systems		13
16. Steam generation systems		3
31. Turbine and auxiliaries	13	12
32. Feedwater and Main Steam System		1
33. Circulating Water System		3
41. Main Generator Systems		193
42. Electrical Power Supply Systems		16
XX. Miscellaneous Systems		1
Total	13	295

FR-20 GRAVELINES-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 910.0 MW(e)
 Design Net Capacity: 910.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6188.7 GW(e).h
 Energy Availability Factor: 82.5%
 Load Factor: 77.6%
 Operating Factor: 84.5%
 Energy Unavailability Factor: 17.5%
 Total Off-line Time: 1360 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	616.3	598.0	637.6	597.5	509.8	620.2	621.3	563.9	29.7	108.3	638.5	647.6	6188.7
EAF (%)	98.3	100.0	99.9	99.6	99.6	98.9	91.8	83.3	5.1	17.2	97.9	99.4	82.5
UCF (%)	98.4	100.0	99.9	99.6	99.7	99.8	97.1	99.0	6.6	17.3	98.5	99.4	84.6
LF (%)	91.0	97.8	94.2	91.2	75.3	94.7	91.8	83.3	4.5	16.0	97.5	95.7	77.6
OF (%)	100.0	100.0	99.9	100.0	82.7	97.8	97.8	100.0	6.8	29.2	100.0	100.0	84.5
EUF (%)	1.7	0.0	0.1	0.4	0.4	1.1	8.2	16.7	94.9	82.8	2.1	0.6	17.5
PUF (%)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	93.3	61.8	0.5	0.0	13.0
UCLF (%)	1.6	0.0	0.0	0.5	0.3	0.2	3.0	0.8	0.2	20.9	1.0	0.6	2.5
XUF (%)	0.1	0.0	0.0	0.0	0.1	0.9	5.2	15.7	1.5	0.1	0.6	0.0	2.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Feb 1975 Lifetime Generation: 140542.5 GW(e).h
 Date of First Criticality: 21 Feb 1980 Cumulative Energy Availability Factor: 75.5%
 Date of Grid Connection: 13 Mar 1980 Cumulative Load Factor: 69.5%
 Date of Commercial Operation: 25 Nov 1980 Cumulative Unit Capability Factor: 77.3%
 Cumulative Energy Unavailability Factor: 24.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	920.0	920.0	100.0	100.0	68.4	68.4	68.3	68.3	1037	70.8
1981	5001.8	920.0	63.2	68.5	63.2	64.0	62.1	63.0	5785	66.0
1982	2987.5	910.0	38.2	54.6	38.2	52.2	37.5	51.3	3602	41.1
1983	5537.0	910.0	69.9	59.4	69.9	57.8	69.5	57.0	6237	71.2
1984	6617.0	910.0	86.2	65.9	86.2	64.6	82.8	63.2	7654	87.1
1985	6211.7	910.0	81.3	68.8	80.3	67.6	77.9	66.0	7218	82.4
1986	5725.5	910.0	74.8	69.8	73.4	68.6	71.8	67.0	6508	74.3
1987	4650.1	910.0	89.3	72.5	89.0	71.4	58.3	65.8	5895	67.3
1988	4289.0	910.0	57.6	70.7	57.0	69.6	53.7	64.3	5306	60.4
1989	5109.6	910.0	67.7	70.4	67.7	69.4	64.1	64.3	6224	71.1
1990	4463.6	910.0	61.3	69.5	59.2	68.4	56.0	63.4	5425	61.9
1991	5675.0	910.0	74.0	69.9	73.4	68.9	71.2	64.1	6619	75.6
1992	5834.7	910.0	84.0	71.0	80.7	69.8	73.0	64.9	7250	82.5
1993	5866.9	910.0	93.8	72.8	80.5	70.6	73.6	65.5	7794	89.0
1994	4657.7	910.0	68.6	72.5	67.7	70.4	58.4	65.0	5729	65.4
1995	6123.1	910.0	83.8	73.2	82.8	71.2	76.8	65.8	7461	85.2
1996	6089.2	910.0	83.5	73.9	80.3	71.8	76.2	66.4	7357	83.8
1997	5860.4	910.0	82.9	74.4	81.7	72.4	73.5	66.9	7236	82.6
1998	6321.4	910.0	87.1	75.1	83.7	73.0	79.3	67.5	7622	87.0
1999	5841.3	910.0	80.3	75.3	78.6	73.3	73.3	67.8	7116	81.2
2000	6531.9	910.0	88.2	76.0	88.1	74.0	81.7	68.5	7705	87.7
2001	5289.4	910.0	67.6	75.6	66.7	73.7	66.4	68.4	6034	68.9
2002	5769.3	915.0	88.7	76.2	86.4	74.3	72.0	68.6	7057	80.6
2003	5919.5	910.0	85.7	76.6	85.1	74.7	74.3	68.8	7420	84.7
2004	6213.9	910.0	86.4	77.0	86.2	75.2	77.7	69.2	7664	87.2
2005	6188.7	910.0	84.6	77.3	82.5	75.5	77.6	69.5	7400	84.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1			519	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1058			1147	18	
D. Inspection, maintenance or repair without refuelling				12	4	
E. Testing of plant systems or components				14	6	
H. Nuclear regulatory requirements					5	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			262		34	11
Z. Others		127			7	
Subtotal	1058	128	262	1173	594	11
Total		1448			1778	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		170
12. Reactor I&C Systems		2
13. Reactor Auxiliary Systems		16
14. Safety Systems		9
15. Reactor Cooling Systems		115
16. Steam generation systems		108
31. Turbine and auxiliaries	1	22
32. Feedwater and Main Steam System		22
33. Circulating Water System		1
41. Main Generator Systems		11
42. Electrical Power Supply Systems		36
Total	1	512

FR-21 GRAVELINES-2

Operator: EDF (ELECTRICITE DE FRANCE)
Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 910.0 MW(e)
Design Net Capacity: 910.0 MW(e)
Design Discharge Burnup: 33735 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6622.6 GW(e).h
Energy Availability Factor: 86.6%
Load Factor: 83.1%
Operating Factor: 89.9%
Energy Unavailability Factor: 13.4%
Total Off-line Time: 881 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	628.8	602.7	602.5	650.0	599.0	171.1	361.4	526.3	613.3	625.0	617.7	624.7	6622.6
EAF (%)	100.0	100.0	91.3	99.1	88.5	26.7	54.3	87.2	98.7	97.9	99.2	97.4	86.6
UCF (%)	100.0	100.0	91.6	99.9	98.0	31.7	55.5	87.9	99.5	98.4	99.3	97.4	88.2
LF (%)	92.9	98.6	89.0	99.2	88.5	26.1	53.4	77.7	93.6	92.2	94.3	92.3	83.1
OF (%)	100.0	100.0	92.2	100.0	100.0	33.6	64.1	89.5	100.0	100.0	100.0	100.0	89.9
EUF (%)	0.0	0.0	8.7	0.9	11.5	73.3	45.7	12.8	1.3	2.1	0.8	2.6	13.4
PUF (%)	0.0	0.0	0.0	0.0	2.0	68.3	40.6	0.2	0.1	0.0	0.0	0.0	9.3
UCLF (%)	0.0	0.0	8.4	0.1	0.0	0.0	4.0	11.9	0.5	1.6	0.8	2.6	2.5
XUF (%)	0.0	0.0	0.3	0.8	9.5	5.0	1.2	0.8	0.7	0.5	0.0	0.0	1.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Mar 1975
Date of First Criticality: 02 Aug 1980
Date of Grid Connection: 26 Aug 1980
Date of Commercial Operation: 01 Dec 1980

Lifetime Generation: 146845.5 GW(e).h
Cumulative Energy Availability Factor: 79.0%
Cumulative Load Factor: 73.0%
Cumulative Unit Capability Factor: 81.2%
Cumulative Energy Unavailability Factor: 21.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	515.0	920.0	100.0	100.0	74.7	74.7	75.2	75.2	571	76.7
1981	5949.2	920.0	100.0	100.0	81.2	80.7	73.8	73.9	7276	83.1
1982	2118.5	910.0	29.2	66.2	29.2	56.1	26.6	51.3	2732	31.2
1983	6130.0	910.0	78.6	70.2	77.9	63.2	76.9	59.6	6917	79.0
1984	5749.0	910.0	82.0	73.1	82.0	67.8	71.9	62.6	6751	76.9
1985	6829.7	910.0	90.2	76.5	89.7	72.1	85.7	67.1	7950	90.8
1986	6422.0	910.0	96.6	79.8	96.4	76.1	80.6	69.3	7956	90.8
1987	5357.9	910.0	77.4	79.4	75.2	75.9	67.2	69.0	6807	77.7
1988	5577.0	910.0	81.3	79.7	77.2	76.1	69.8	69.1	7227	82.3
1989	6412.9	910.0	84.6	80.2	83.6	76.9	80.4	70.4	7460	85.2
1990	6143.1	910.0	80.6	80.2	79.6	77.2	77.1	71.0	7164	81.8
1991	4915.9	910.0	63.6	78.7	63.0	75.9	61.7	70.2	5648	64.5
1992	6124.2	910.0	80.6	78.9	78.2	76.1	76.6	70.7	7149	81.4
1993	6219.9	910.0	82.3	79.2	79.3	76.3	78.0	71.3	7297	83.3
1994	6293.7	910.0	86.2	79.7	82.7	76.8	79.0	71.8	7638	87.2
1995	5599.7	910.0	75.6	79.4	74.6	76.6	70.2	71.7	6735	76.9
1996	5235.9	910.0	70.7	78.8	69.7	76.2	65.5	71.3	6361	72.4
1997	6641.2	910.0	98.0	80.0	97.8	77.5	83.3	72.0	8006	91.4
1998	5531.4	910.0	82.2	80.1	82.1	77.7	69.4	71.9	6896	78.7
1999	6394.4	910.0	87.8	80.5	85.3	78.1	80.2	72.3	7705	88.0
2000	5582.7	910.0	80.5	80.5	77.3	78.1	69.8	72.2	6952	79.1
2001	5984.5	910.0	85.5	80.7	85.0	78.4	75.1	72.3	7601	86.8
2002	5254.3	915.0	74.4	80.4	72.4	78.1	65.6	72.0	6658	76.0
2003	6553.9	910.0	89.6	80.8	89.2	78.6	82.2	72.5	7986	91.2
2004	6009.0	910.0	81.8	80.9	80.4	78.7	75.2	72.6	7262	82.7
2005	6622.6	910.0	88.2	81.2	86.6	79.0	83.1	73.0	7880	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		9			155	
B. Refuelling without a maintenance	651					
C. Inspection, maintenance or repair combined with refuelling	84			1076	49	
D. Inspection, maintenance or repair without refuelling				74		
E. Testing of plant systems or components				29		
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				23	52	63
Z. Others		14			4	
Subtotal	735	23	0	1202	260	65
Total		758			1527	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		8
12. Reactor I&C Systems		7
13. Reactor Auxiliary Systems		7
14. Safety Systems		7
15. Reactor Cooling Systems		26
16. Steam generation systems		25
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries	9	12
32. Feedwater and Main Steam System		9
41. Main Generator Systems		26
42. Electrical Power Supply Systems		12
Total	9	139

FR-27 GRAVELINES-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 910.0 MW(e)
 Design Net Capacity: 910.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6075.9 GW(e).h
 Energy Availability Factor: 77.2%
 Load Factor: 76.2%
 Operating Factor: 81.3%
 Energy Unavailability Factor: 22.8%
 Total Off-line Time: 1635 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	667.6	553.6	200.0	0.0	238.8	615.1	587.1	641.6	626.5	655.9	641.0	648.6	6075.9
EAF (%)	98.6	90.5	30.2	0.0	36.9	94.3	90.0	97.8	97.3	97.9	98.3	95.8	77.2
UCF (%)	99.1	98.7	35.1	0.0	37.1	95.5	91.2	99.2	98.9	99.0	98.8	95.8	78.9
LF (%)	98.6	90.5	29.5	0.0	35.3	93.9	86.7	94.8	95.6	96.7	97.8	95.8	76.2
OF (%)	100.0	100.0	35.8	0.0	46.5	98.1	96.6	100.0	100.0	100.0	100.0	100.0	81.3
EUF (%)	1.4	9.5	69.8	100.0	63.1	5.7	10.0	2.2	2.7	2.1	1.7	4.2	22.8
PUF (%)	0.0	0.0	64.4	75.3	8.9	0.1	0.0	0.0	0.1	0.0	0.1	0.0	12.4
UCLF (%)	0.9	1.4	0.5	24.8	54.0	4.4	8.8	0.9	1.0	1.0	1.2	4.2	8.6
XUF (%)	0.5	8.1	5.0	0.0	0.2	1.2	1.3	1.4	1.6	1.1	0.5	0.0	1.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Dec 1975
 Date of First Criticality: 30 Nov 1980
 Date of Grid Connection: 12 Dec 1980
 Date of Commercial Operation: 01 Jun 1981

Lifetime Generation: 146368.5 GW(e).h
 Cumulative Energy Availability Factor: 79.3%
 Cumulative Load Factor: 73.8%
 Cumulative Unit Capability Factor: 81.2%
 Cumulative Energy Unavailability Factor: 20.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	3699.8	920.0	100.0	100.0	84.4	84.4	78.3	78.3	4462	86.9
1982	3445.0	910.0	47.6	67.1	47.6	61.3	43.2	56.3	4260	48.6
1983	6006.0	910.0	81.4	72.6	78.5	67.9	75.3	63.6	7194	82.1
1984	6746.0	910.0	83.9	75.7	83.9	72.4	84.4	69.4	7505	85.4
1985	6294.4	910.0	80.1	76.7	80.1	74.1	79.0	71.5	7151	81.6
1986	6504.5	910.0	81.7	77.6	81.7	75.4	81.6	73.3	7335	83.7
1987	5382.9	910.0	75.5	77.3	74.3	75.3	67.5	72.4	6188	70.6
1988	4819.0	910.0	96.2	79.8	95.4	77.9	60.3	70.8	6724	76.5
1989	6307.7	910.0	82.3	80.1	79.5	78.1	79.1	71.8	7320	83.6
1990	6121.5	910.0	80.6	80.1	77.6	78.1	76.8	72.3	7114	81.2
1991	6306.3	910.0	81.3	80.3	80.5	78.3	79.1	73.0	7086	80.9
1992	4772.4	910.0	60.4	78.5	60.0	76.7	59.7	71.8	5388	61.3
1993	6588.1	910.0	85.2	79.1	82.9	77.2	82.6	72.7	7567	86.4
1994	6308.9	910.0	83.8	79.4	83.0	77.6	79.1	73.1	7116	81.2
1995	6221.7	910.0	84.3	79.7	83.0	78.0	78.0	73.5	7326	83.6
1996	5937.2	910.0	85.9	80.1	83.0	78.3	74.3	73.5	7377	84.0
1997	5752.7	910.0	81.1	80.2	78.9	78.3	72.2	73.4	6938	79.2
1998	6152.4	910.0	83.9	80.4	83.0	78.6	77.2	73.7	7330	83.7
1999	5412.9	910.0	79.1	80.3	76.9	78.5	67.9	73.4	6709	76.6
2000	6112.4	910.0	84.6	80.6	82.9	78.7	76.5	73.5	7396	84.2
2001	6198.0	910.0	92.6	81.1	83.9	79.0	77.8	73.7	7597	86.7
2002	5282.5	915.0	76.8	80.9	76.8	78.9	65.9	73.4	6401	73.1
2003	6045.5	910.0	85.8	81.2	85.8	79.2	75.8	73.5	7482	85.4
2004	6393.1	910.0	83.9	81.3	83.8	79.4	80.0	73.7	7499	85.4
2005	6075.9	910.0	78.9	81.2	77.2	79.3	76.2	73.8	7126	81.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					303	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1022			1026	30	
D. Inspection, maintenance or repair without refuelling				1		
E. Testing of plant systems or components				8	1	2
H. Nuclear regulatory requirements						1
J. Grid failure or grid unavailability						9
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					28	71
L. Human factor related		96				
Z. Others		458			8	
Subtotal	1022	554	0	1035	371	83
Total		1576			1489	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems		9
13. Reactor Auxiliary Systems		23
14. Safety Systems		4
15. Reactor Cooling Systems		32
16. Steam generation systems		48
31. Turbine and auxiliaries		24
32. Feedwater and Main Steam System		13
41. Main Generator Systems		79
42. Electrical Power Supply Systems		18
XX. Miscellaneous Systems		7
Total	0	270

FR-28 GRAVELINES-4

Operator: EDF (ELECTRICITE DE FRANCE)
Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 910.0 MW(e)
Design Net Capacity: 910.0 MW(e)
Design Discharge Burnup: 33735 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6437.1 GW(e).h
Energy Availability Factor: 81.7%
Load Factor: 80.7%
Operating Factor: 83.9%
Energy Unavailability Factor: 18.3%
Total Off-line Time: 1406 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	660.9	567.4	655.0	640.8	652.1	633.3	603.6	0.0	240.6	456.5	650.6	676.2	6437.1
EAF (%)	98.9	92.8	99.7	98.8	98.6	98.4	89.7	0.0	38.1	68.0	99.4	99.8	81.7
UCF (%)	99.5	93.8	99.7	98.8	98.7	99.1	91.9	0.0	38.4	68.5	99.6	99.9	82.2
LF (%)	97.6	92.8	96.7	97.8	96.3	96.7	89.2	0.0	36.7	67.4	99.3	99.9	80.7
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	92.9	0.0	46.5	70.0	100.0	100.0	83.9
EUf (%)	1.1	7.2	0.3	1.2	1.4	1.6	10.3	100.0	61.9	32.0	0.6	0.2	18.3
PUF (%)	0.2	0.4	0.0	0.1	0.2	0.0	7.4	100.0	35.0	0.2	0.0	0.0	12.1
UCLF (%)	0.3	5.8	0.3	1.1	1.2	0.9	0.7	0.0	26.6	31.3	0.4	0.2	5.7
XUF (%)	0.5	1.0	0.0	0.0	0.1	0.7	2.1	0.0	0.3	0.5	0.2	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASE LOAD OPERATION

5. Historical Summary

Date of Construction Start: 01 Apr 1976
Date of First Criticality: 31 May 1981
Date of Grid Connection: 14 Jun 1981
Date of Commercial Operation: 01 Oct 1981

Lifetime Generation: 142875.4 GW(e).h
Cumulative Energy Availability Factor: 78.3%
Cumulative Load Factor: 73.5%
Cumulative Unit Capability Factor: 79.9%
Cumulative Energy Unavailability Factor: 21.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	1722.2	920.0	100.0	100.0	85.4	85.4	84.8	84.8	2031	92.0
1982	5498.2	910.0	80.8	84.7	80.8	81.7	69.0	72.2	7193	82.1
1983	4062.0	910.0	55.4	71.7	54.5	69.6	51.0	62.8	4986	56.9
1984	6006.0	910.0	82.8	75.1	82.8	73.7	75.1	66.6	7173	81.7
1985	6178.8	910.0	83.6	77.1	80.9	75.4	77.5	69.1	7387	84.3
1986	6556.6	910.0	88.7	79.3	88.6	77.9	82.2	71.6	7862	89.7
1987	5472.8	910.0	77.2	79.0	75.8	77.6	68.7	71.2	6787	77.5
1988	6221.0	910.0	87.9	80.2	85.9	78.7	77.8	72.1	7789	88.7
1989	4982.3	910.0	67.4	78.6	66.9	77.3	62.5	70.9	6025	68.8
1990	6151.7	910.0	79.4	78.7	77.2	77.3	77.2	71.6	7058	80.6
1991	6262.0	910.0	81.8	79.0	80.5	77.6	78.6	72.3	7067	80.7
1992	6419.8	910.0	81.0	79.2	80.2	77.8	80.3	73.0	7137	81.3
1993	4680.6	910.0	76.5	79.0	75.3	77.6	58.7	71.8	6112	69.8
1994	6039.3	910.0	83.3	79.3	82.5	78.0	75.8	72.1	6824	77.9
1995	6289.5	910.0	86.4	79.8	85.4	78.5	78.9	72.6	7313	83.5
1996	6288.4	910.0	85.5	80.2	83.2	78.8	78.7	73.0	7552	86.0
1997	5986.7	910.0	81.3	80.2	80.5	78.9	75.1	73.1	7206	82.3
1998	6519.3	910.0	85.4	80.5	84.1	79.2	81.8	73.6	7570	86.4
1999	5550.9	910.0	76.4	80.3	74.3	78.9	69.6	73.4	6734	76.9
2000	4563.6	910.0	69.5	79.8	57.7	77.8	57.1	72.6	5453	62.1
2001	5990.7	910.0	79.8	79.8	78.3	77.9	75.2	72.7	7094	81.0
2002	6028.1	915.0	81.2	79.8	80.1	78.0	75.2	72.8	7219	82.4
2003	5701.9	910.0	74.2	79.6	74.2	77.8	71.5	72.7	6589	75.2
2004	6544.6	910.0	85.4	79.8	85.4	78.1	81.9	73.1	7693	87.6
2005	6437.1	910.0	82.2	79.9	81.7	78.3	80.7	73.5	7354	83.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					399	
C. Inspection, maintenance or repair combined with refuelling	1011			1093	11	
D. Inspection, maintenance or repair without refuelling				7	14	
E. Testing of plant systems or components				5	1	1
H. Nuclear regulatory requirements					11	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					13	38
L. Human factor related					0	
Z. Others		175				
Subtotal	1011	175	0	1105	449	40
Total		1186			1594	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		23
12. Reactor I&C Systems		61
13. Reactor Auxiliary Systems		4
14. Safety Systems		17
15. Reactor Cooling Systems		39
16. Steam generation systems		72
21. Fuel Handling and Storage Facilities		2
31. Turbine and auxiliaries		33
32. Feedwater and Main Steam System		28
33. Circulating Water System		0
41. Main Generator Systems		37
42. Electrical Power Supply Systems		66
Total	0	382

FR-51 GRAVELINES-5

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 910.0 MW(e)

Design Net Capacity: 910.0 MW(e)

Design Discharge Burnup: 47000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6410.0 GW(e).h

Energy Availability Factor: 81.7%

Load Factor: 80.4%

Operating Factor: 85.9%

Energy Unavailability Factor: 18.3%

Total Off-line Time: 1237 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	663.1	578.7	588.3	186.2	0.0	541.7	645.5	638.0	628.9	655.3	634.6	649.8	6410.0
EAF (%)	99.9	94.5	87.0	29.1	0.0	82.9	98.5	99.0	97.6	97.9	97.8	96.6	81.7
UCF (%)	99.9	95.7	100.0	37.7	0.0	83.6	99.4	99.7	99.2	98.9	98.1	96.6	84.0
LF (%)	97.9	94.6	86.9	28.4	0.0	82.7	95.3	94.2	96.0	96.7	96.8	96.0	80.4
OF (%)	100.0	96.4	99.9	40.4	0.0	94.6	100.0	100.0	100.0	100.0	100.0	100.0	85.9
EUF (%)	0.1	5.5	13.0	70.9	100.0	17.1	1.5	1.0	2.4	2.1	2.2	3.4	18.3
PUF (%)	0.1	0.1	0.0	50.1	98.6	10.7	0.3	0.1	0.3	0.3	0.4	0.1	13.5
UCLF (%)	0.0	4.1	0.0	12.3	1.4	5.7	0.4	0.2	0.5	0.7	1.5	3.3	2.5
XUF (%)	0.0	1.2	13.0	8.5	0.0	0.7	0.9	0.7	1.6	1.0	0.2	0.0	2.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Oct 1979 Lifetime Generation: 126282.7 GW(e).h

Date of First Criticality: 05 Aug 1984 Cumulative Energy Availability Factor: 80.8%

Date of Grid Connection: 28 Aug 1984 Cumulative Load Factor: 74.9%

Date of Commercial Operation: 15 Jan 1985 Cumulative Unit Capability Factor: 82.6%

 Cumulative Energy Unavailability Factor: 19.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	6768.4	910.0	90.1	90.1	90.0	90.0	84.9	84.9	7785	88.9
1986	5152.6	910.0	77.1	83.6	75.2	82.6	64.6	74.8	6673	76.2
1987	5236.5	910.0	81.5	82.9	80.6	82.0	65.7	71.7	6818	77.8
1988	4964.0	910.0	75.3	81.0	71.8	79.4	62.1	69.3	6306	71.8
1989	6020.6	910.0	81.0	81.0	80.6	79.7	75.5	70.6	7198	82.2
1990	5992.8	910.0	83.2	81.4	80.7	79.8	75.2	71.3	7367	84.1
1991	5276.2	910.0	72.2	80.0	69.6	78.4	66.2	70.6	6352	72.5
1992	6308.0	910.0	82.6	80.4	82.6	78.9	78.9	71.6	7361	83.8
1993	6180.5	910.0	82.7	80.6	78.6	78.9	77.5	72.3	7290	83.2
1994	5793.2	910.0	84.4	81.0	83.2	79.3	72.7	72.3	7147	81.6
1995	6181.0	910.0	87.6	81.6	86.0	79.9	77.5	72.8	7704	87.9
1996	5495.2	910.0	75.3	81.1	72.1	79.3	68.7	72.5	6652	75.7
1997	6429.9	910.0	87.6	81.6	86.1	79.8	80.7	73.1	7586	86.6
1998	6884.3	910.0	97.3	82.7	95.8	80.9	86.4	74.0	8286	94.6
1999	5124.3	910.0	68.1	81.7	67.0	80.0	64.3	73.4	6127	69.9
2000	5985.5	910.0	84.4	81.9	81.4	80.1	74.9	73.5	7444	84.7
2001	5762.6	910.0	80.2	81.8	78.2	80.0	72.3	73.4	6990	79.8
2002	6423.4	915.0	85.9	82.0	84.8	80.2	80.1	73.8	7662	87.5
2003	6473.4	910.0	85.1	82.2	84.3	80.5	81.2	74.2	7518	85.8
2004	6613.5	910.0	88.8	82.5	86.2	80.8	82.7	74.6	7836	89.2
2005	6410.0	910.0	84.0	82.6	81.7	80.8	80.4	74.9	7524	85.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		68			317	
C. Inspection, maintenance or repair combined with refuelling	1094			921	29	
D. Inspection, maintenance or repair without refuelling				3		
E. Testing of plant systems or components				3	0	
H. Nuclear regulatory requirements					1	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					11	0
L. Human factor related		118				
Z. Others		42				
Subtotal	1094	228	0	927	358	1
Total		1322			1286	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		19
12. Reactor I&C Systems	68	11
13. Reactor Auxiliary Systems		20
14. Safety Systems		1
15. Reactor Cooling Systems		102
16. Steam generation systems		9
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System		10
33. Circulating Water System		2
41. Main Generator Systems		46
42. Electrical Power Supply Systems		46
Total	68	284

FR-52 GRAVELINES-6

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 910.0 MW(e)

Design Net Capacity: 910.0 MW(e)

Design Discharge Burnup: 47000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6536.5 GW(e).h

Energy Availability Factor: 82.4%

Load Factor: 82.0%

Operating Factor: 85.7%

Energy Unavailability Factor: 17.6%

Total Off-line Time: 1249 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	652.5	619.7	635.9	658.6	645.1	573.2	617.5	665.5	558.3	103.3	129.9	677.0	6536.5
EAF (%)	99.5	99.9	94.0	99.9	99.4	87.4	91.3	97.9	85.2	15.6	20.8	97.9	82.4
UCF (%)	100.0	99.9	94.0	99.9	99.9	87.4	91.3	100.0	100.0	21.2	20.8	97.9	84.3
LF (%)	96.4	101.3	93.9	100.5	95.3	87.5	91.2	98.3	85.2	15.3	19.8	100.0	82.0
OF (%)	100.0	100.0	97.3	100.0	100.0	90.3	92.1	100.0	100.0	21.8	29.3	98.8	85.7
EUF (%)	0.5	0.1	6.0	0.1	0.6	12.6	8.7	2.1	14.8	84.4	79.2	2.1	17.6
PUF (%)	0.0	0.1	3.3	0.0	0.1	6.1	0.0	0.0	0.0	78.8	79.2	0.0	14.0
UCLF (%)	0.0	0.0	2.7	0.1	0.1	6.5	8.7	0.0	0.0	0.0	0.0	2.0	1.7
XUF (%)	0.5	0.0	0.0	0.0	0.5	0.0	0.0	2.1	14.8	5.5	0.0	0.0	1.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Oct 1979 Lifetime Generation: 123576.9 GW(e).h

Date of First Criticality: 21 Jul 1985 Cumulative Energy Availability Factor: 80.4%

Date of Grid Connection: 01 Aug 1985 Cumulative Load Factor: 76.2%

Date of Commercial Operation: 25 Oct 1985 Cumulative Unit Capability Factor: 81.9%

 Cumulative Energy Unavailability Factor: 19.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	1740.9	910.0	88.7	88.7	88.6	88.6	86.6	86.6	2003	90.7
1986	5540.4	910.0	76.3	78.8	75.9	78.4	69.5	73.0	6677	76.2
1987	5583.9	910.0	80.6	79.6	80.1	79.2	70.0	71.7	7031	80.3
1988	6490.0	910.0	83.8	80.9	81.4	79.9	81.2	74.6	7453	84.8
1989	5177.3	910.0	71.2	78.6	71.1	77.8	64.9	72.3	6274	71.6
1990	6120.3	910.0	87.6	80.3	87.1	79.6	76.8	73.2	7553	86.2
1991	5888.2	910.0	78.5	80.0	77.5	79.2	73.9	73.3	6953	79.4
1992	5085.1	910.0	70.3	78.7	69.0	77.8	63.6	71.9	6246	71.1
1993	5293.6	910.0	82.0	79.1	73.4	77.3	66.4	71.3	6751	77.1
1994	6053.7	910.0	86.0	79.8	83.9	78.0	75.9	71.8	7487	85.5
1995	6769.4	910.0	89.8	80.8	88.8	79.1	84.9	73.1	7922	90.4
1996	6609.5	910.0	86.8	81.3	86.4	79.7	82.7	73.9	7755	88.3
1997	4545.4	910.0	60.6	79.6	59.5	78.1	57.0	72.5	5437	62.1
1998	6531.8	910.0	88.5	80.3	86.1	78.7	81.9	73.3	7746	88.4
1999	6141.4	910.0	80.9	80.4	80.3	78.8	77.0	73.5	7222	82.4
2000	6720.9	910.0	88.7	80.9	87.0	79.3	84.1	74.2	7887	89.8
2001	6148.7	910.0	82.2	81.0	80.2	79.4	77.1	74.4	7265	82.9
2002	6690.9	915.0	87.5	81.4	86.0	79.8	83.5	74.9	7784	88.9
2003	6462.6	910.0	83.3	81.5	82.5	79.9	81.1	75.3	7410	84.6
2004	6936.1	910.0	88.3	81.8	86.9	80.3	86.8	75.9	7850	89.4
2005	6536.5	910.0	84.3	81.9	82.4	80.4	82.0	76.2	7511	85.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		89			319	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	1025			902	35	
D. Inspection, maintenance or repair without refuelling					25	
E. Testing of plant systems or components				11		
H. Nuclear regulatory requirements					5	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					41	2
Z. Others					8	
Subtotal	1025	89	0	913	436	2
Total		1114			1351	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		19
13. Reactor Auxiliary Systems		12
14. Safety Systems		18
15. Reactor Cooling Systems		39
16. Steam generation systems	89	2
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries		92
32. Feedwater and Main Steam System		18
33. Circulating Water System		0
41. Main Generator Systems		24
42. Electrical Power Supply Systems		50
XX. Miscellaneous Systems		0
Total	89	276

FR-58 NOGENT-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1310.0 MW(e)
 Design Net Capacity: 1310.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8534.4 GW(e).h
 Energy Availability Factor: 75.1%
 Load Factor: 74.4%
 Operating Factor: 77.7%
 Energy Unavailability Factor: 24.9%
 Total Off-line Time: 1957 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	954.2	878.2	920.8	927.4	953.7	885.4	582.9	0.0	0.0	527.1	937.2	967.4	8534.4
EAF (%)	98.3	99.9	95.9	100.0	99.9	94.4	60.3	0.0	0.0	55.4	100.0	99.8	75.1
UCF (%)	98.3	99.9	95.9	100.0	100.0	99.5	70.9	0.0	0.0	55.4	100.0	99.8	76.5
LF (%)	97.9	99.8	94.5	98.3	97.9	93.9	59.8	0.0	0.0	54.1	99.4	99.3	74.4
OF (%)	98.5	100.0	96.1	100.0	100.0	100.0	71.1	0.0	0.0	68.0	100.0	100.0	77.7
EUF (%)	1.7	0.1	4.1	0.0	0.1	5.6	39.7	100.0	100.0	44.6	0.0	0.2	24.9
PUF (%)	0.1	0.1	0.1	0.0	0.0	0.0	29.0	100.0	100.0	21.9	0.0	0.0	21.1
UCLF (%)	1.7	0.0	4.0	0.0	0.0	0.5	0.0	0.0	0.0	22.7	0.0	0.1	2.5
XUF (%)	0.0	0.0	0.0	0.0	0.1	5.2	10.7	0.0	0.0	0.0	0.0	0.0	1.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASE LOAD OPERATION

5. Historical Summary

Date of Construction Start: 26 May 1981 Lifetime Generation: 143144.2 GW(e).h
 Date of First Criticality: 12 Sep 1987 Cumulative Energy Availability Factor: 75.7%
 Date of Grid Connection: 21 Oct 1987 Cumulative Load Factor: 69.1%
 Date of Commercial Operation: 24 Feb 1988 Cumulative Unit Capability Factor: 77.2%
 Cumulative Energy Unavailability Factor: 24.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	7028.0	1310.0	88.5	88.5	87.6	87.6	66.7	66.7	6701	83.3
1989	3172.7	1310.0	30.2	58.1	28.3	56.7	27.6	46.3	2663	30.4
1990	6614.1	1310.0	67.7	61.4	67.5	60.4	57.6	50.2	5590	63.8
1991	6868.6	1310.0	64.2	62.1	62.9	61.0	59.9	52.7	5768	65.8
1992	7812.5	1310.0	71.5	64.0	70.4	62.9	67.9	55.8	6386	72.7
1993	7705.6	1310.0	72.2	65.4	68.5	63.9	67.1	57.7	6432	73.4
1994	8292.3	1310.0	83.2	68.0	80.1	66.2	72.3	59.8	7429	84.8
1995	7358.3	1310.0	84.3	70.0	83.9	68.5	64.1	60.3	6946	79.3
1996	8227.9	1310.0	81.1	71.3	79.6	69.7	71.5	61.6	7222	82.2
1997	8571.6	1310.0	83.7	72.5	81.1	70.9	74.7	62.9	7488	85.5
1998	6585.5	1310.0	59.2	71.3	57.2	69.6	57.4	62.4	5334	60.9
1999	9705.0	1310.0	92.5	73.1	91.8	71.5	84.6	64.3	8284	94.6
2000	9088.3	1310.0	85.2	74.0	83.0	72.4	79.0	65.4	7626	86.8
2001	9142.7	1310.0	84.7	74.8	83.8	73.2	79.7	66.4	7580	86.5
2002	9011.0	1310.0	87.3	75.6	87.1	74.1	78.5	67.2	7738	88.3
2003	9974.4	1310.0	98.3	77.0	98.0	75.6	86.9	68.5	8621	98.4
2004	8535.3	1310.0	81.0	77.3	77.8	75.7	74.2	68.8	7152	81.4
2005	8534.4	1310.0	76.5	77.2	75.1	75.7	74.4	69.1	6803	77.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		16			576	
B. Refuelling without a maintenance					12	
C. Inspection, maintenance or repair combined with refuelling	1753			929	1	
D. Inspection, maintenance or repair without refuelling				92		
E. Testing of plant systems or components				78		2
H. Nuclear regulatory requirements					14	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					21	
L. Human factor related		167				
Subtotal	1753	183	0	1099	624	2
Total		1936			1725	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		87
12. Reactor I&C Systems	16	70
13. Reactor Auxiliary Systems		0
14. Safety Systems		1
15. Reactor Cooling Systems		33
16. Steam generation systems		135
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries		64
32. Feedwater and Main Steam System		20
33. Circulating Water System		54
41. Main Generator Systems		64
42. Electrical Power Supply Systems		4
Total	16	533

FR-59 NOGENT-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1310.0 MW(e)

Design Net Capacity: 1310.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8393.3 GW(e).h

Energy Availability Factor: 76.1%

Load Factor: 73.1%

Operating Factor: 78.8%

Energy Unavailability Factor: 23.9%

Total Off-line Time: 1853 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	958.4	873.5	938.0	910.9	929.2	845.0	899.7	863.3	853.2	174.7	0.0	147.6	8393.3
EAF (%)	100.0	100.0	99.9	99.9	99.8	95.0	99.9	94.1	90.8	18.7	0.0	17.3	76.1
UCF (%)	100.0	100.0	99.9	99.9	99.8	95.1	99.9	94.1	100.0	22.3	0.0	17.3	77.2
LF (%)	98.3	99.2	96.2	96.6	95.3	89.6	92.3	88.6	90.5	17.9	0.0	15.1	73.1
OF (%)	100.0	100.0	99.9	100.0	100.0	95.4	100.0	94.4	100.0	22.8	0.0	35.1	78.8
EUF (%)	0.0	0.0	0.1	0.1	0.2	5.0	0.1	5.9	9.2	81.3	100.0	82.7	23.9
PUF (%)	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	77.7	100.0	42.8	18.5
UCLF (%)	0.0	0.0	0.0	0.1	0.1	4.8	0.0	5.9	0.0	0.0	0.0	39.9	4.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	9.2	3.5	0.0	0.0	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Jan 1982 Lifetime Generation: 142215.6 GW(e).h

Date of First Criticality: 04 Oct 1988 Cumulative Energy Availability Factor: 80.8%

Date of Grid Connection: 14 Dec 1988 Cumulative Load Factor: 73.4%

Date of Commercial Operation: 01 May 1989 Cumulative Unit Capability Factor: 83.0%

 Cumulative Energy Unavailability Factor: 19.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	5612.0	1310.0	78.9	78.9	78.9	78.9	72.8	72.8	4744	80.7
1990	7532.9	1310.0	69.4	73.2	68.3	72.6	65.6	68.5	6094	69.6
1991	8331.1	1310.0	78.8	75.3	73.5	72.9	72.6	70.1	7008	80.0
1992	8312.3	1310.0	77.4	75.9	74.1	73.2	72.2	70.7	6937	79.0
1993	9191.7	1310.0	85.9	78.0	80.8	74.8	80.1	72.7	7594	86.7
1994	6483.0	1310.0	98.0	81.5	94.8	78.4	56.5	69.8	6027	68.8
1995	7545.4	1310.0	78.4	81.1	75.9	78.0	65.8	69.2	6862	78.3
1996	8477.0	1310.0	80.5	81.0	77.0	77.9	73.7	69.8	7229	82.3
1997	8925.8	1310.0	86.0	81.6	82.0	78.3	77.8	70.7	7656	87.4
1998	8830.0	1310.0	98.0	83.3	97.8	80.3	76.9	71.4	7386	84.3
1999	7957.3	1310.0	76.2	82.6	74.7	79.8	69.3	71.2	6732	76.8
2000	9672.1	1310.0	85.9	82.9	84.6	80.2	84.1	72.3	7654	87.1
2001	9379.0	1310.0	85.1	83.1	83.4	80.5	81.7	73.0	7589	86.6
2002	8205.5	1310.0	84.2	83.2	84.2	80.7	71.5	72.9	7241	82.7
2003	9447.1	1310.0	91.5	83.7	91.5	81.5	82.3	73.6	7954	90.8
2004	8216.7	1310.0	78.6	83.4	75.1	81.1	71.4	73.4	7044	80.2
2005	8393.3	1310.0	77.2	83.0	76.1	80.8	73.1	73.4	6907	78.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		45			237	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1362			873		
E. Testing of plant systems or components				28		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					60	
Z. Others					1	
Subtotal	1362	45	0	901	300	0
Total		1407			1201	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		11
12. Reactor I&C Systems	45	24
13. Reactor Auxiliary Systems		10
14. Safety Systems		42
15. Reactor Cooling Systems		25
16. Steam generation systems		45
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		25
32. Feedwater and Main Steam System		12
33. Circulating Water System		8
41. Main Generator Systems		12
42. Electrical Power Supply Systems		7
XX. Miscellaneous Systems		1
Total	45	222

FR-36 PALUEL-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10565.5 GW(e).h

Energy Availability Factor: 97.9%

Load Factor: 90.7%

Operating Factor: 98.8%

Energy Unavailability Factor: 2.1%

Total Off-line Time: 106 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	894.8	849.4	901.3	823.6	872.8	857.9	892.6	861.7	858.2	902.9	921.9	928.7	10565.5
EAF (%)	96.8	99.4	97.5	92.5	100.0	98.8	97.9	98.8	98.3	94.7	99.9	99.8	97.9
UCF (%)	96.8	100.0	99.8	92.5	100.0	99.7	99.4	98.9	98.8	95.3	99.9	99.8	98.4
LF (%)	90.4	95.0	91.1	86.0	88.2	89.6	90.2	87.1	89.6	91.2	96.3	93.8	90.7
OF (%)	96.9	100.0	99.9	93.3	100.0	100.0	99.5	100.0	99.2	96.8	100.0	100.0	98.8
EUF (%)	3.2	0.6	2.5	7.5	0.0	1.2	2.1	1.2	1.7	5.3	0.1	0.2	2.1
PUF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.0	0.0	0.3	0.1	0.2	0.1
UCLF (%)	3.3	0.0	0.0	7.5	0.0	0.3	0.0	1.1	1.2	4.4	0.0	0.0	1.5
XUF (%)	0.0	0.6	2.3	0.0	0.0	0.9	1.5	0.1	0.4	0.6	0.0	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 15 Aug 1977 Lifetime Generation: 169321.8 GW(e).h

Date of First Criticality: 13 May 1984 Cumulative Energy Availability Factor: 76.4%

Date of Grid Connection: 22 Jun 1984 Cumulative Load Factor: 70.2%

Date of Commercial Operation: 01 Dec 1985 Cumulative Unit Capability Factor: 78.2%

 Cumulative Energy Unavailability Factor: 23.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	947.5	1290.0	94.9	94.9	94.9	94.9	98.7	98.7	731	98.3
1986	5169.7	1290.0	52.3	55.7	50.2	53.7	45.7	49.9	4455	50.9
1987	8184.8	1330.0	77.0	66.0	76.6	64.9	70.3	59.8	6527	74.5
1988	9291.0	1330.0	96.8	76.1	95.3	74.8	79.5	66.3	7332	83.5
1989	7902.8	1330.0	72.6	75.3	70.4	73.7	67.8	66.7	6567	75.0
1990	7323.9	1330.0	70.1	74.2	66.4	72.3	62.9	65.9	6288	71.8
1991	7159.9	1330.0	66.7	73.0	63.2	70.8	61.5	65.2	5987	68.3
1992	8640.4	1330.0	76.6	73.5	76.6	71.6	74.0	66.4	6858	78.1
1993	8068.1	1330.0	77.2	74.0	70.9	71.5	69.2	66.8	6906	78.8
1994	6549.9	1330.0	77.1	74.3	76.9	72.1	56.2	65.6	5790	66.1
1995	8768.2	1330.0	82.2	75.1	79.6	72.9	75.3	66.6	7292	83.2
1996	5483.2	1330.0	52.7	73.1	48.7	70.7	46.9	64.8	4763	54.2
1997	9019.7	1330.0	84.5	74.0	83.8	71.8	77.4	65.8	7537	86.0
1998	9718.1	1330.0	91.3	75.3	91.2	73.3	83.4	67.2	8132	92.8
1999	8181.9	1330.0	78.6	75.6	76.2	73.5	70.2	67.4	6938	79.2
2000	9089.0	1330.0	84.0	76.1	83.5	74.1	77.8	68.1	7533	85.8
2001	9752.2	1330.0	98.3	77.5	97.6	75.6	83.7	69.1	8382	95.7
2002	7153.9	1330.0	68.3	77.0	66.6	75.1	61.4	68.6	6081	69.4
2003	8526.2	1330.0	77.6	77.0	77.2	75.2	73.2	68.9	6882	78.6
2004	8596.3	1330.0	79.4	77.1	77.4	75.3	73.6	69.1	7103	80.9
2005	10565.5	1330.0	98.4	78.2	97.9	76.4	90.7	70.2	8654	98.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		52			443	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				1022	63	
D. Inspection, maintenance or repair without refuelling				164		
E. Testing of plant systems or components				30	1	
H. Nuclear regulatory requirements					17	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					56	1
Z. Others					1	
Subtotal	0	52	0	1216	584	2
Total		52			1802	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		27
12. Reactor I&C Systems	21	58
13. Reactor Auxiliary Systems		37
14. Safety Systems		4
15. Reactor Cooling Systems		13
16. Steam generation systems	6	17
21. Fuel Handling and Storage Facilities		3
31. Turbine and auxiliaries		41
32. Feedwater and Main Steam System	25	40
33. Circulating Water System		23
41. Main Generator Systems		136
42. Electrical Power Supply Systems		17
XX. Miscellaneous Systems		2
Total	52	418

FR-37 PALUEL-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7246.4 GW(e).h

Energy Availability Factor: 64.5%

Load Factor: 62.2%

Operating Factor: 66.5%

Energy Unavailability Factor: 35.5%

Total Off-line Time: 2938 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	921.3	865.1	828.4	889.1	0.0	0.0	0.0	196.5	905.6	933.9	782.7	923.9	7246.4
EAF (%)	95.9	99.3	86.5	94.5	0.0	0.0	0.0	21.3	97.9	97.6	84.6	99.9	64.5
UCF (%)	96.3	99.5	86.8	96.7	0.0	0.0	0.0	21.3	99.8	99.9	87.2	99.9	65.3
LF (%)	93.1	96.8	83.7	92.8	0.0	0.0	0.0	19.9	94.6	94.2	81.7	93.4	62.2
OF (%)	97.2	100.0	87.0	96.9	0.0	0.0	0.0	34.3	100.0	100.0	90.8	95.3	66.5
EUF (%)	4.1	0.7	13.5	5.5	100.0	100.0	100.0	78.7	2.1	2.4	15.4	0.1	35.5
PUF (%)	0.0	0.3	0.0	3.3	100.0	100.0	100.0	35.6	0.2	0.1	0.1	0.1	28.6
UCLF (%)	3.7	0.2	13.2	0.0	0.0	0.0	0.0	43.1	0.0	0.0	12.7	0.0	6.2
XUF (%)	0.4	0.2	0.3	2.2	0.0	0.0	0.0	0.0	1.9	2.3	2.6	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Jan 1978 Lifetime Generation: 164285.3 GW(e).h

Date of First Criticality: 11 Aug 1984 Cumulative Energy Availability Factor: 73.6%

Date of Grid Connection: 14 Sep 1984 Cumulative Load Factor: 67.9%

Date of Commercial Operation: 01 Dec 1985 Cumulative Unit Capability Factor: 75.9%

 Cumulative Energy Unavailability Factor: 26.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	990.5	1290.0	99.6	99.6	99.6	99.6	103.2	103.2	744	100.0
1986	6040.9	1290.0	52.3	56.0	52.2	55.9	53.5	57.4	4804	54.8
1987	8859.6	1290.0	77.3	66.2	76.8	66.0	78.4	67.4	6837	78.0
1988	7725.0	1330.0	75.5	69.3	73.5	68.5	66.1	67.0	6017	68.5
1989	8956.4	1330.0	83.4	72.8	80.1	71.3	76.9	69.5	7358	84.0
1990	6496.3	1330.0	59.1	70.1	59.1	68.9	55.8	66.7	5328	60.8
1991	6140.3	1330.0	55.1	67.6	54.9	66.6	52.7	64.4	4996	57.0
1992	6906.9	1330.0	63.6	67.0	61.7	65.9	59.1	63.7	5618	64.0
1993	7954.4	1330.0	87.9	69.6	76.9	67.3	68.3	64.2	7217	82.4
1994	7115.2	1330.0	77.6	70.5	74.5	68.1	61.1	63.9	6671	76.2
1995	6934.5	1330.0	70.5	70.5	65.8	67.8	59.5	63.4	6252	71.4
1996	8407.4	1330.0	83.8	71.7	78.5	68.8	72.0	64.2	7195	81.9
1997	8139.8	1330.0	83.9	72.7	83.5	70.0	69.9	64.7	7182	82.0
1998	7300.4	1330.0	73.1	72.8	69.1	70.0	62.7	64.5	6583	75.1
1999	9243.8	1330.0	85.6	73.7	84.1	71.0	79.3	65.6	7705	88.0
2000	9849.9	1330.0	96.0	75.2	94.4	72.5	84.3	66.8	8271	94.2
2001	7843.1	1330.0	76.7	75.3	76.0	72.7	67.3	66.9	6861	78.3
2002	7984.4	1330.0	73.2	75.1	72.0	72.7	68.5	67.0	6569	75.0
2003	8814.9	1330.0	82.1	75.5	81.1	73.2	75.7	67.4	7490	85.5
2004	9562.7	1330.0	92.6	76.4	89.9	74.1	81.9	68.2	8039	91.5
2005	7246.4	1330.0	65.3	75.9	64.5	73.6	62.2	67.9	5823	66.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		289			602	
B. Refuelling without a maintenance				41	6	
C. Inspection, maintenance or repair combined with refuelling	2400			904	131	
D. Inspection, maintenance or repair without refuelling				52		
E. Testing of plant systems or components				22	1	
H. Nuclear regulatory requirements					3	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					28	0
L. Human factor related		24				
M. Governmental requirements or court decisions					1	
Z. Others		12				
Subtotal	2400	325	0	1019	772	0
Total		2725			1791	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		22
12. Reactor I&C Systems	84	114
13. Reactor Auxiliary Systems		9
14. Safety Systems		24
15. Reactor Cooling Systems	24	86
16. Steam generation systems		39
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities	72	1
31. Turbine and auxiliaries	37	38
32. Feedwater and Main Steam System		8
33. Circulating Water System		84
41. Main Generator Systems		116
42. Electrical Power Supply Systems		21
XX. Miscellaneous Systems	72	
Total	289	563

FR-38 PALUEL-3**Operator:** EDF (ELECTRICITE DE FRANCE)**Contractor:** FRAM (FRAMATOME)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8157.6 GW(e).h

Energy Availability Factor: 73.1%

Load Factor: 70.0%

Operating Factor: 75.0%

Energy Unavailability Factor: 26.9%

Total Off-line Time: 2187 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	935.0	865.1	934.0	458.2	949.2	909.7	303.0	804.1	810.0	0.0	285.6	903.6	8157.6
EAF (%)	96.7	98.1	97.7	50.7	99.9	99.4	32.3	87.8	88.0	-0.1	31.6	97.3	73.1
UCF (%)	96.7	98.1	99.9	50.7	99.9	100.0	63.7	87.8	98.8	-0.1	31.6	97.3	76.9
LF (%)	94.5	96.8	94.4	47.9	95.9	95.0	30.6	81.3	84.6	0.0	29.8	91.3	70.0
OF (%)	97.8	99.0	99.9	51.4	100.0	100.0	34.0	88.6	91.7	0.3	40.4	99.2	75.0
EUF (%)	3.3	1.9	2.3	49.3	0.1	0.6	67.7	12.2	12.0	100.1	68.4	2.7	26.9
PUF (%)	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.1	100.1	58.1	0.0	13.3
UCLF (%)	3.3	1.9	0.0	49.1	0.0	0.0	36.3	12.2	1.2	0.0	10.3	2.7	9.7
XUF (%)	0.0	0.0	2.2	0.0	0.0	0.6	31.3	0.0	10.8	0.0	0.0	0.0	3.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Feb 1979 **Lifetime Generation:** 160829.5 GW(e).h

Date of First Criticality: 07 Aug 1985 **Cumulative Energy Availability Factor:** 74.0%

Date of Grid Connection: 30 Sep 1985 **Cumulative Load Factor:** 68.5%

Date of Commercial Operation: 01 Feb 1986 **Cumulative Unit Capability Factor:** 75.6%

Cumulative Energy Unavailability Factor: 26.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	7395.7	1290.0	72.1	72.1	72.1	72.1	71.5	71.5	5759	71.8
1987	7716.6	1290.0	78.4	75.4	78.3	75.3	68.3	69.8	6104	69.7
1988	6763.0	1330.0	68.7	73.0	59.2	69.7	57.9	65.6	5413	61.6
1989	8124.4	1330.0	70.7	72.4	70.2	69.8	69.7	66.7	6288	71.8
1990	7322.0	1330.0	67.2	71.4	66.2	69.1	62.8	65.9	6008	68.6
1991	9587.1	1330.0	86.5	73.9	86.3	72.0	82.3	68.7	7634	87.1
1992	6886.6	1330.0	63.2	72.4	63.0	70.7	58.9	67.3	5671	64.6
1993	8459.0	1330.0	77.5	73.0	73.4	71.0	72.6	68.0	6951	79.3
1994	6703.6	1330.0	63.4	71.9	61.8	70.0	57.5	66.8	5590	63.8
1995	8733.3	1330.0	85.6	73.3	84.1	71.4	75.0	67.6	7598	86.7
1996	8027.7	1330.0	84.9	74.4	84.6	72.6	68.7	67.7	7261	82.7
1997	7618.8	1330.0	73.2	74.3	72.8	72.6	65.4	67.5	6494	74.1
1998	8327.0	1330.0	77.6	74.5	76.1	72.9	71.5	67.8	6913	78.9
1999	7636.7	1330.0	76.1	74.7	73.7	73.0	65.5	67.7	6505	74.3
2000	9819.8	1330.0	94.7	76.0	94.4	74.4	84.1	68.8	8199	93.3
2001	7815.9	1330.0	81.6	76.4	79.6	74.7	67.1	68.7	6796	77.6
2002	8900.5	1330.0	82.3	76.7	80.4	75.1	76.4	69.1	7366	84.1
2003	8181.7	1330.0	74.9	76.6	74.3	75.0	70.2	69.2	6567	75.0
2004	6395.5	1330.0	57.0	75.6	56.0	74.0	54.7	68.4	5147	58.6
2005	8157.6	1330.0	76.9	75.6	73.1	74.0	70.0	68.5	6573	75.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		362			680	
B. Refuelling without a maintenance	1012				5	
C. Inspection, maintenance or repair combined with refuelling				992	46	
D. Inspection, maintenance or repair without refuelling				47		
E. Testing of plant systems or components				40	1	12
H. Nuclear regulatory requirements					5	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					3	23
L. Human factor related		24			1	
Z. Others					2	
Subtotal	1012	386	0	1079	743	35
Total		1398			1857	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	132	54
12. Reactor I&C Systems	21	94
13. Reactor Auxiliary Systems	28	48
14. Safety Systems	56	41
15. Reactor Cooling Systems		92
16. Steam generation systems		7
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities		13
31. Turbine and auxiliaries	72	28
32. Feedwater and Main Steam System	16	85
33. Circulating Water System		62
41. Main Generator Systems	37	58
42. Electrical Power Supply Systems		44
XX. Miscellaneous Systems		1
Total	362	628

FR-39 PALUEL-4**Operator:** EDF (ELECTRICITE DE FRANCE)**Contractor:** FRAM (FRAMATOME)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9682.1 GW(e).h

Energy Availability Factor: 89.2%

Load Factor: 83.1%

Operating Factor: 90.7%

Energy Unavailability Factor: 10.8%

Total Off-line Time: 812 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	872.0	850.0	929.1	870.7	869.5	815.0	175.9	751.1	814.4	930.4	868.8	935.1	9682.1
EAF (%)	99.2	98.3	97.9	97.6	96.4	93.2	19.6	94.6	88.3	96.7	92.3	97.5	89.2
UCF (%)	99.8	98.3	98.2	97.6	96.4	95.0	50.4	94.6	99.1	99.1	92.6	100.0	93.3
LF (%)	88.1	95.1	93.9	90.9	87.9	85.1	17.8	75.9	85.0	93.9	90.7	94.5	83.1
OF (%)	100.0	100.0	99.9	98.9	97.2	94.4	28.2	85.1	91.4	100.0	95.1	100.0	90.7
EUF (%)	0.8	1.7	2.1	2.4	3.6	6.8	80.4	5.4	11.7	3.3	7.7	2.5	10.8
PUF (%)	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.1
UCLF (%)	0.2	1.7	1.8	2.3	3.6	4.8	49.6	5.3	0.9	0.8	7.4	0.0	6.6
XUF (%)	0.6	0.0	0.3	0.0	0.0	1.8	30.8	0.0	10.8	2.3	0.3	2.5	4.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Feb 1980 **Lifetime Generation:** 160815.8 GW(e).h

Date of First Criticality: 29 Mar 1986 **Cumulative Energy Availability Factor:** 76.3%

Date of Grid Connection: 11 Apr 1986 **Cumulative Load Factor:** 70.2%

Date of Commercial Operation: 01 Jun 1986 **Cumulative Unit Capability Factor:** 77.9%

Cumulative Energy Unavailability Factor: 23.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	5171.6	1290.0	85.7	85.7	85.2	85.2	78.0	78.0	4298	83.7
1987	8014.6	1290.0	69.8	75.7	69.7	75.5	70.9	73.6	6289	71.8
1988	5909.0	1330.0	54.0	67.1	53.6	66.8	50.6	64.5	4812	54.8
1989	8268.3	1330.0	72.1	68.5	71.0	68.0	71.0	66.3	6349	72.5
1990	8067.7	1330.0	78.7	70.8	78.5	70.3	69.2	67.0	6770	77.3
1991	8325.6	1330.0	74.5	71.5	74.2	71.0	71.5	67.8	6677	76.2
1992	5553.3	1330.0	48.9	68.0	48.6	67.6	47.5	64.7	4529	51.6
1993	8683.8	1330.0	77.8	69.3	75.3	68.6	74.5	66.0	6938	79.2
1994	8329.7	1330.0	77.3	70.2	76.5	69.5	71.5	66.6	6945	79.3
1995	8346.8	1330.0	88.5	72.1	88.1	71.5	71.6	67.2	7354	83.9
1996	7848.1	1330.0	75.2	72.4	72.4	71.6	67.2	67.2	6745	76.8
1997	8633.7	1330.0	81.9	73.3	78.2	72.1	74.1	67.8	7219	82.4
1998	7776.7	1330.0	71.2	73.1	68.3	71.8	66.7	67.7	6506	74.3
1999	9879.7	1330.0	96.1	74.8	94.6	73.5	84.8	68.9	8345	95.3
2000	8358.8	1330.0	86.0	75.6	84.4	74.3	71.5	69.1	7532	85.7
2001	8581.0	1330.0	84.5	76.1	82.1	74.8	73.7	69.4	7489	85.5
2002	9303.3	1330.0	95.7	77.3	92.7	75.9	79.9	70.0	8216	93.8
2003	7960.7	1330.0	82.8	77.6	81.9	76.2	68.3	69.9	7307	83.4
2004	7138.6	1330.0	67.9	77.1	64.6	75.6	61.1	69.5	6027	68.6
2005	9682.1	1330.0	93.3	77.9	89.2	76.3	83.1	70.2	7949	90.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					610	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				982	15	
D. Inspection, maintenance or repair without refuelling				44		
E. Testing of plant systems or components				24	0	
J. Grid failure or grid unavailability						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					28	1
Z. Others					20	
Subtotal	0	0	0	1050	676	7
Total	0			1733		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		110
12. Reactor I&C Systems		16
13. Reactor Auxiliary Systems		10
14. Safety Systems		19
15. Reactor Cooling Systems		42
16. Steam generation systems		85
21. Fuel Handling and Storage Facilities		69
31. Turbine and auxiliaries		40
32. Feedwater and Main Steam System		13
33. Circulating Water System		2
41. Main Generator Systems		135
42. Electrical Power Supply Systems		41
Total	0	582

FR-63 PENLY-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8491.3 GW(e).h

Energy Availability Factor: 76.9%

Load Factor: 72.9%

Operating Factor: 81.1%

Energy Unavailability Factor: 23.1%

Total Off-line Time: 1656 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	865.6	450.4	0.0	111.7	717.4	898.6	920.3	846.5	879.9	920.7	907.6	972.5	8491.3
EAF (%)	87.5	51.1	0.1	13.2	75.5	98.8	99.2	98.7	98.9	97.9	99.5	99.8	76.9
UCF (%)	100.0	64.9	0.1	13.2	75.5	99.5	99.2	98.7	99.0	97.9	99.5	99.8	79.1
LF (%)	87.5	50.4	0.0	11.7	72.5	93.8	93.0	85.5	91.9	93.0	94.8	98.3	72.9
OF (%)	100.0	64.9	0.0	30.8	77.2	100.0	100.0	100.0	100.0	98.9	100.0	100.0	81.1
EUF (%)	12.5	48.9	99.9	86.8	24.5	1.2	0.8	1.3	1.1	2.1	0.5	0.2	23.1
PUF (%)	0.0	35.1	99.9	45.5	1.2	0.0	0.0	0.4	0.0	0.0	0.0	0.2	15.1
UCLF (%)	0.0	0.0	0.0	41.3	23.3	0.5	0.7	0.9	1.0	2.1	0.5	0.1	5.9
XUF (%)	12.5	13.8	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	2.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Sep 1982 Lifetime Generation: 133446.9 GW(e).h

Date of First Criticality: 01 Apr 1990 Cumulative Energy Availability Factor: 81.0%

Date of Grid Connection: 04 May 1990 Cumulative Load Factor: 74.9%

Date of Commercial Operation: 01 Dec 1990 Cumulative Unit Capability Factor: 82.5%

 Cumulative Energy Unavailability Factor: 19.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	971.2	1330.0	98.9	98.9	98.9	98.9	98.2	98.2	738	99.2
1991	8436.7	1330.0	74.3	76.2	74.2	76.2	72.4	74.4	6645	75.9
1992	7922.2	1330.0	71.2	73.8	70.9	73.6	67.8	71.2	6315	71.9
1993	8023.9	1330.0	84.6	77.3	71.9	73.1	68.9	70.5	7298	83.3
1994	7969.1	1330.0	86.1	79.5	85.0	76.0	68.4	70.0	6654	76.0
1995	8879.1	1330.0	81.9	79.9	80.8	76.9	76.2	71.2	7248	82.7
1996	9530.8	1330.0	85.7	80.9	85.2	78.3	81.6	72.9	7625	86.8
1997	8503.4	1330.0	77.5	80.4	76.7	78.1	73.0	72.9	6872	78.4
1998	9965.7	1330.0	98.0	82.6	97.9	80.5	85.5	74.5	8140	92.9
1999	7998.5	1330.0	74.4	81.7	71.5	79.5	68.7	73.8	6633	75.7
2000	8271.7	1330.0	73.8	80.9	73.7	79.0	70.8	73.5	6640	75.6
2001	9825.8	1330.0	98.7	82.5	98.4	80.7	84.3	74.5	8304	94.8
2002	7146.7	1330.0	67.2	81.2	66.9	79.6	61.3	73.4	5948	67.9
2003	9290.8	1330.0	84.6	81.5	84.6	80.0	79.7	73.9	7525	85.9
2004	10500.2	1330.0	98.9	82.7	98.6	81.3	89.9	75.0	8733	99.4
2005	8491.3	1330.0	79.1	82.5	76.9	81.0	72.9	74.9	7104	81.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		166			294	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1245			781	2	
D. Inspection, maintenance or repair without refuelling				242		
E. Testing of plant systems or components				26		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	
L. Human factor related					0	
Subtotal	1245	166	0	1049	303	0
Total		1411			1352	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		48
12. Reactor I&C Systems		10
13. Reactor Auxiliary Systems		25
14. Safety Systems		16
15. Reactor Cooling Systems		41
16. Steam generation systems		51
17. Safety I&C Systems (excluding reactor I&C)		5
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System	166	13
33. Circulating Water System		2
41. Main Generator Systems		35
42. Electrical Power Supply Systems		1
Total	166	264

FR-64 PENLY-2**Operator:** EDF (ELECTRICITE DE FRANCE)**Contractor:** FRAM (FRAMATOME)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1330.0 MW(e)

Design Net Capacity: 1330.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9102.6 GW(e).h

Energy Availability Factor: 84.0%

Load Factor: 78.1%

Operating Factor: 86.1%

Energy Unavailability Factor: 16.0%

Total Off-line Time: 1214 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	817.6	815.2	856.9	869.5	940.5	927.1	938.3	523.1	0.0	599.4	870.5	944.4	9102.6
EAF (%)	99.3	99.9	99.9	98.1	98.8	99.4	96.2	54.0	0.0	65.1	97.8	99.7	84.0
UCF (%)	99.3	99.9	99.9	98.1	98.8	99.5	99.2	60.1	0.0	65.1	97.8	99.7	84.8
LF (%)	82.6	91.2	86.6	90.8	95.0	96.8	94.8	52.9	0.0	60.6	90.9	95.4	78.1
OF (%)	99.5	100.0	99.9	98.9	100.0	100.0	99.9	60.5	0.0	76.5	98.5	100.0	86.1
EUF (%)	0.7	0.1	0.1	1.9	1.2	0.6	3.8	46.0	100.0	34.9	2.2	0.3	16.0
PUF (%)	0.0	0.0	0.0	0.1	0.8	0.0	0.0	16.1	96.8	11.1	0.0	0.2	10.4
UCLF (%)	0.6	0.1	0.1	1.8	0.5	0.5	0.8	23.8	3.2	23.8	2.2	0.1	4.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	3.0	6.1	0.0	0.0	0.0	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Aug 1984 **Lifetime Generation:** 119346.3 GW(e).h

Date of First Criticality: 10 Jan 1992 **Cumulative Energy Availability Factor:** 82.2%

Date of Grid Connection: 04 Feb 1992 **Cumulative Load Factor:** 75.7%

Date of Commercial Operation: 01 Nov 1992 **Cumulative Unit Capability Factor:** 83.3%

Cumulative Energy Unavailability Factor: 17.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1992	1970.8	1330.0	100.0	100.0	100.0	100.0	101.2	101.2	1464	100.0
1993	8611.8	1330.0	75.2	78.7	74.4	78.1	73.9	77.8	6658	76.0
1994	8759.7	1330.0	81.3	79.9	77.6	77.8	75.2	76.6	7228	82.5
1995	8169.7	1330.0	74.0	78.0	73.8	76.6	70.1	74.6	6574	75.0
1996	9758.0	1330.0	91.3	81.2	89.3	79.6	83.5	76.7	8025	91.4
1997	8068.9	1330.0	84.3	81.8	82.9	80.3	69.3	75.3	7186	82.0
1998	8877.5	1330.0	82.9	82.0	81.1	80.4	76.2	75.4	7318	83.5
1999	8637.0	1330.0	81.3	81.9	79.4	80.2	74.1	75.2	7203	82.2
2000	9584.5	1330.0	97.1	83.8	96.8	82.3	82.0	76.1	8393	95.5
2001	8816.2	1330.0	82.1	83.6	80.2	82.1	75.7	76.0	7333	83.7
2002	8464.3	1330.0	79.1	83.1	79.0	81.8	72.6	75.7	6890	78.7
2003	10207.8	1330.0	97.6	84.4	97.6	83.2	87.6	76.8	8603	98.2
2004	7225.8	1330.0	69.2	83.2	69.1	82.0	61.9	75.5	6231	70.9
2005	9102.6	1330.0	84.8	83.3	84.0	82.2	78.1	75.7	7546	86.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1992 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		233			497	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	817			841		
E. Testing of plant systems or components				60		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					7	
L. Human factor related		12				
Z. Others		9			0	
Subtotal	817	254	0	901	504	0
Total		1071			1405	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1992 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	48	47
12. Reactor I&C Systems	57	26
13. Reactor Auxiliary Systems		16
14. Safety Systems		6
15. Reactor Cooling Systems		60
16. Steam generation systems		16
21. Fuel Handling and Storage Facilities	34	1
31. Turbine and auxiliaries		40
32. Feedwater and Main Steam System	94	17
33. Circulating Water System		1
41. Main Generator Systems		2
42. Electrical Power Supply Systems		226
Total	233	458

FR-10 PHENIX

Operator: CEA/EDF (COMMISSARIAT A L'ENERGIE ATOMIQUE / ELECTRICITE DE FRANCE)

Contractor: CNCLNEY (CNIM-CONSTRUCTIONS NAVALES ET INDUSTRIELLES DE MEDITERRANEE CL - CREUSOT LOIRE , NI

1. Station Details

Type: FBR
Net Reference Unit Power
at the beginning of 2005: 233.0 MW(e)
Design Net Capacity: 233.0 MW(e)
Design Discharge Burnup: 100000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 796.4 GW(e).h
Energy Availability Factor: 39.5%
Load Factor: 39.0%
Operating Factor: 72.4%
Energy Unavailability Factor: 60.5%
Total Off-line Time: 2419 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	84.5	64.5	76.3	82.7	18.7	51.1	90.1	73.5	0.0	71.3	86.2	97.4	796.4
EAF (%)	49.4	42.0	44.8	49.9	12.0	31.7	52.0	42.8	0.0	41.6	51.7	56.1	39.5
UCF (%)	49.4	42.1	44.8	49.9	12.0	31.7	52.0	42.8	0.0	41.6	51.7	56.2	39.5
LF (%)	48.8	41.2	44.0	49.3	10.8	30.5	52.0	42.4	0.0	41.1	51.4	56.2	39.0
OF (%)	87.9	77.2	80.5	89.9	21.6	58.5	99.5	82.1	0.0	77.2	93.2	100.0	72.4
EUF (%)	50.6	58.0	55.2	50.1	88.0	68.3	48.0	57.2	100.0	58.4	48.3	43.9	60.5
PUF (%)	0.0	0.0	0.0	0.0	78.5	17.1	0.0	17.9	100.0	2.6	0.0	0.0	18.0
UCLF (%)	50.6	58.0	55.2	50.1	9.5	51.2	48.0	39.4	0.0	55.8	48.3	43.9	42.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERFORMANCE LOSS DUE TO STEAM GENERATOR NEW DESIGN *** REFERENCE UNIT POWER WILL CHANGE TO 130 MWE ON 01/01/2006

5. Historical Summary

Date of Construction Start: 01 Nov 1968
Date of First Criticality: 31 Aug 1973
Date of Grid Connection: 13 Dec 1973
Date of Commercial Operation: 01 Feb 1974

Lifetime Generation: 21797.8 GW(e).h
Cumulative Energy Availability Factor: 51.2%
Cumulative Load Factor: 44.6%
Cumulative Unit Capability Factor: 62.5%
Cumulative Energy Unavailability Factor: 48.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	950.1	233.0	100.0	100.0	50.9	50.9	50.9	50.9	4624	57.7
1975	1308.4	233.0	64.1	81.3	64.1	57.8	64.1	57.8	5932	67.7
1976	950.8	233.0	100.0	87.7	46.7	54.0	46.5	53.9	4799	54.6
1977	300.8	233.0	100.0	90.8	15.5	44.2	14.7	43.9	2120	24.2
1978	1238.8	233.0	100.0	92.7	60.9	47.6	60.7	47.3	5905	67.4
1979	1719.0	233.0	100.0	93.9	84.0	53.7	84.2	53.5	7350	83.9
1980	1319.0	233.0	64.7	89.7	64.7	55.3	64.4	55.1	5679	64.7
1981	1421.9	233.0	70.0	87.2	69.9	57.1	69.7	57.0	6217	71.0
1982	989.1	233.0	48.8	82.9	48.7	56.2	48.5	56.0	5429	62.0
1983	1122.0	233.0	55.2	80.1	55.1	56.1	55.0	55.9	5515	63.0
1984	1414.0	233.0	70.1	79.2	53.7	55.9	69.1	57.1	6206	70.7
1985	1153.0	233.0	60.4	77.6	60.4	56.2	56.5	57.1	6784	77.4
1986	1519.1	233.0	73.2	77.3	73.2	57.6	74.4	58.4	6996	79.9
1987	1556.4	233.0	75.3	77.1	71.5	58.6	76.3	59.7	7059	80.6
1988	1475.4	233.0	72.0	76.8	71.4	59.4	72.1	60.5	6300	71.7
1989	601.2	233.0	30.4	73.9	29.6	57.6	29.5	58.6	2678	30.6
1990	982.5	233.0	47.9	72.3	47.9	57.0	48.1	58.0	4637	52.9
1991	0.0	233.0	58.6	71.6	58.6	57.1	0.0	54.7	0	0.0
1992	0.0	233.0	0.0	67.8	0.0	54.1	0.0	51.8	0	0.0
1993	34.8	233.0	94.1	69.1	94.1	56.1	1.7	49.3	286	3.3
1994	22.6	233.0	17.1	66.6	17.1	54.2	1.1	47.0	184	2.1
1995	Data not provided									
1996	2.7	233.0	0.0	63.6	0.0	51.7	0.1	44.9	0	0.0
1997	Data not provided									
1998	"									
1999	"									
2000	"									
2001	"									
2002	"									
2003	"									
2004	"									
2005	796.4	233.0	39.5	62.5	39.5	51.2	39.0	44.6	6341	72.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					844	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling				410		
D. Inspection, maintenance or repair without refuelling				262	7	
E. Testing of plant systems or components					1	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					6	2
Subtotal	0	0	0	672	859	3
Total	0			1534		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		70
12. Reactor I&C Systems		71
14. Safety Systems		0
15. Reactor Cooling Systems		246
16. Steam generation systems		266
21. Fuel Handling and Storage Facilities		63
31. Turbine and auxiliaries		38
32. Feedwater and Main Steam System		66
33. Circulating Water System		1
41. Main Generator Systems		5
42. Electrical Power Supply Systems		7
Total	0	833

FR-48 ST. ALBAN-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1335.0 MW(e)

Design Net Capacity: 1335.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9697.0 GW(e).h

Energy Availability Factor: 86.0%

Load Factor: 82.9%

Operating Factor: 90.7%

Energy Unavailability Factor: 14.0%

Total Off-line Time: 812 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	724.1	0.0	808.0	899.1	900.7	860.4	898.4	821.6	926.7	950.5	922.5	984.9	9697.0
EAF (%)	73.4	0.0	86.5	98.3	97.1	95.2	95.5	86.5	97.0	97.0	98.3	99.8	86.0
UCF (%)	90.3	0.0	86.5	98.8	97.1	98.5	97.9	91.3	98.1	99.0	99.1	99.8	88.6
LF (%)	72.9	0.0	81.4	93.5	90.7	89.5	90.5	82.7	96.4	95.6	96.0	99.2	82.9
OF (%)	90.6	0.0	97.8	99.4	99.6	100.0	100.0	93.7	100.0	100.0	100.0	100.0	90.7
EUF (%)	26.6	100.0	13.5	1.7	2.9	4.8	4.5	13.5	3.0	3.0	1.7	0.2	14.0
PUF (%)	9.7	100.0	9.5	0.0	0.1	0.0	0.0	5.8	0.0	0.0	0.0	0.0	9.8
UCLF (%)	0.0	0.0	4.0	1.2	2.8	1.5	2.1	2.9	1.9	1.0	0.9	0.1	1.5
XUF (%)	16.9	0.0	0.0	0.4	0.1	3.3	2.4	4.8	1.1	2.0	0.8	0.0	2.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 29 Jan 1979 Lifetime Generation: 156562.5 GW(e).h

Date of First Criticality: 04 Aug 1985 Cumulative Energy Availability Factor: 75.8%

Date of Grid Connection: 30 Aug 1985 Cumulative Load Factor: 66.5%

Date of Commercial Operation: 01 May 1986 Cumulative Unit Capability Factor: 77.4%

 Cumulative Energy Unavailability Factor: 24.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	3909.9	1300.0	67.6	67.6	66.4	66.4	51.1	51.1	3182	54.1
1987	6101.6	1300.0	56.6	61.0	56.2	60.3	53.6	52.6	4944	56.4
1988	4562.0	1335.0	83.4	69.6	82.4	68.7	38.9	47.4	3721	42.4
1989	6781.3	1335.0	70.7	69.9	63.5	67.3	58.0	50.3	5907	67.4
1990	7799.1	1335.0	70.4	70.0	68.6	67.6	66.7	53.8	6295	71.9
1991	7935.3	1335.0	74.4	70.8	73.3	68.6	67.9	56.3	6380	72.8
1992	4812.2	1335.0	42.1	66.4	42.1	64.6	41.0	54.0	3775	43.0
1993	7376.0	1335.0	68.2	66.7	65.7	64.7	63.1	55.2	6010	68.6
1994	7575.6	1335.0	94.5	69.9	93.8	68.1	64.8	56.3	6777	77.4
1995	8535.7	1335.0	81.1	71.1	78.2	69.2	73.0	58.0	7197	82.2
1996	8126.6	1335.0	83.7	72.2	83.1	70.5	69.3	59.1	6950	79.1
1997	7112.8	1335.0	65.5	71.7	63.6	69.9	60.8	59.3	5833	66.6
1998	8255.9	1335.0	90.6	73.2	89.9	71.5	70.6	60.2	6802	77.6
1999	9240.6	1335.0	86.3	74.1	85.7	72.5	79.0	61.5	7656	87.4
2000	8027.8	1335.0	72.2	74.0	71.4	72.4	68.5	62.0	6494	73.9
2001	9298.5	1335.0	89.8	75.0	89.6	73.5	79.5	63.1	7843	89.5
2002	8768.8	1335.0	81.0	75.4	79.6	73.9	75.0	63.8	7275	83.0
2003	8691.9	1335.0	80.6	75.7	78.0	74.1	74.3	64.4	7029	80.2
2004	10127.4	1335.0	96.6	76.8	95.3	75.3	86.4	65.6	8283	94.3
2005	9697.0	1335.0	88.6	77.4	86.0	75.8	82.9	66.5	7949	90.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					647	
B. Refuelling without a maintenance	745				4	
C. Inspection, maintenance or repair combined with refuelling				948	11	
D. Inspection, maintenance or repair without refuelling				77	0	
E. Testing of plant systems or components				32		
H. Nuclear regulatory requirements					43	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					34	1
L. Human factor related					0	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						5
Z. Others					0	
Subtotal	745	0	0	1057	739	6
Total		745			1802	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		59
12. Reactor I&C Systems		18
13. Reactor Auxiliary Systems		13
14. Safety Systems		14
15. Reactor Cooling Systems		135
16. Steam generation systems		5
21. Fuel Handling and Storage Facilities		7
31. Turbine and auxiliaries		124
32. Feedwater and Main Steam System		45
33. Circulating Water System		3
35. All other I&C Systems		1
41. Main Generator Systems		98
42. Electrical Power Supply Systems		70
XX. Miscellaneous Systems		7
Total	0	599

FR-49 ST. ALBAN-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1335.0 MW(e)
 Design Net Capacity: 1335.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7238.0 GW(e).h
 Energy Availability Factor: 65.2%
 Load Factor: 61.9%
 Operating Factor: 72.6%
 Energy Unavailability Factor: 34.8%
 Total Off-line Time: 2400 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	916.4	581.8	863.4	19.1	17.7	746.1	671.8	758.1	860.6	940.9	857.1	4.9	7238.0
EAF (%)	93.2	65.8	87.1	2.7	3.1	82.2	83.6	84.1	93.2	95.0	90.7	2.2	65.2
UCF (%)	93.2	68.3	100.0	3.6	3.1	88.8	93.1	98.2	98.9	98.6	99.4	2.2	70.6
LF (%)	92.3	64.9	86.9	2.0	1.8	77.6	67.6	76.3	89.5	94.6	89.2	0.5	61.9
OF (%)	93.3	72.6	99.9	3.6	10.8	95.3	94.8	99.2	100.0	100.0	100.0	2.2	72.6
EUF (%)	6.8	34.2	12.9	97.3	96.9	17.8	16.4	15.9	6.8	5.0	9.3	97.8	34.8
PUF (%)	0.0	0.0	0.0	96.4	86.9	4.2	0.0	0.6	0.0	0.0	0.0	0.0	15.7
UCLF (%)	6.8	31.7	0.0	0.0	10.0	7.0	7.0	1.2	1.1	1.3	0.6	97.8	13.7
XUF (%)	0.0	2.5	12.9	0.9	0.0	6.6	9.4	14.1	5.6	3.6	8.6	0.0	5.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 31 Jul 1979 Lifetime Generation: 145019.1 GW(e).h
 Date of First Criticality: 07 Jun 1986 Cumulative Energy Availability Factor: 73.9%
 Date of Grid Connection: 03 Jul 1986 Cumulative Load Factor: 64.9%
 Date of Commercial Operation: 01 Mar 1987 Cumulative Unit Capability Factor: 76.6%
 Cumulative Energy Unavailability Factor: 26.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	5639.8	1300.0	79.1	79.1	79.0	79.0	59.1	59.1	5014	68.3
1988	5185.0	1335.0	47.3	61.5	46.5	61.1	44.2	50.9	4308	49.0
1989	6126.5	1335.0	57.5	60.1	56.2	59.4	52.4	51.4	4806	54.9
1990	6070.6	1335.0	60.3	60.1	56.5	58.6	51.9	51.5	5146	58.7
1991	7962.6	1335.0	73.3	62.9	71.1	61.2	68.1	55.0	6484	74.0
1992	6375.1	1335.0	64.3	63.1	62.3	61.4	54.4	54.9	5405	61.5
1993	6433.1	1335.0	90.9	67.2	83.1	64.6	55.0	54.9	6121	69.9
1994	7125.8	1335.0	74.9	68.2	73.0	65.7	60.9	55.7	6074	69.3
1995	7751.4	1335.0	76.1	69.1	72.7	66.5	66.3	56.9	6763	77.2
1996	8344.6	1335.0	81.5	70.3	79.7	67.8	71.2	58.3	7247	82.5
1997	8049.7	1335.0	92.3	72.4	91.8	70.0	68.8	59.3	7072	80.7
1998	6555.7	1335.0	66.7	71.9	63.2	69.4	56.1	59.0	5654	64.5
1999	8607.0	1335.0	80.3	72.6	79.3	70.2	73.6	60.2	7188	82.1
2000	8729.6	1335.0	86.5	73.6	79.0	70.9	74.4	61.2	7202	82.0
2001	8654.8	1335.0	91.4	74.8	91.3	72.2	74.0	62.1	7657	87.4
2002	8290.6	1335.0	77.3	74.9	75.2	72.4	70.9	62.6	6950	79.3
2003	9254.8	1335.0	87.8	75.7	83.0	73.1	79.1	63.6	7558	86.3
2004	10476.5	1335.0	97.8	76.9	97.7	74.4	89.3	65.0	8709	99.1
2005	7238.0	1335.0	70.6	76.6	65.2	73.9	61.9	64.9	6361	72.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		410			721	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	1284			893	30	
D. Inspection, maintenance or repair without refuelling				97		
E. Testing of plant systems or components				67	2	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					14	32
L. Human factor related					0	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						8
Subtotal	1284	410	0	1057	772	40
Total		1694			1869	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	250	53
12. Reactor I&C Systems	86	62
13. Reactor Auxiliary Systems		16
14. Safety Systems		4
15. Reactor Cooling Systems		61
16. Steam generation systems		123
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries	45	136
32. Feedwater and Main Steam System		48
33. Circulating Water System		1
35. All other I&C Systems		0
41. Main Generator Systems	29	124
42. Electrical Power Supply Systems		16
XX. Miscellaneous Systems		3
Total	410	647

FR-17 ST. LAURENT-B-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 915.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5384.1 GW(e).h
 Energy Availability Factor: 68.1%
 Load Factor: 67.2%
 Operating Factor: 70.6%
 Energy Unavailability Factor: 31.9%
 Total Off-line Time: 2575 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	673.8	610.9	668.1	610.0	359.6	0.0	0.0	0.0	513.7	652.7	629.9	665.4	5384.1
EAF (%)	99.7	99.9	99.9	92.6	54.1	0.0	0.0	0.0	80.4	99.2	96.7	97.7	68.1
UCF (%)	99.7	99.9	99.9	99.8	63.9	0.0	0.0	0.0	80.4	99.2	96.7	97.7	69.5
LF (%)	99.0	99.3	98.1	92.6	52.8	0.0	0.0	0.0	78.0	95.8	95.6	97.7	67.2
OF (%)	100.0	100.0	99.9	100.0	64.4	0.0	0.0	0.0	88.9	100.0	97.1	100.0	70.6
EUF (%)	0.3	0.1	0.1	7.4	45.9	100.0	100.0	100.0	19.6	0.8	3.3	2.3	31.9
PUF (%)	0.3	0.1	0.1	0.3	36.1	100.0	100.0	64.5	7.2	0.1	0.1	0.0	25.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.5	12.4	0.7	3.2	2.2	4.5
XUF (%)	0.0	0.0	0.0	7.2	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASE LOAD OPERATION

5. Historical Summary

Date of Construction Start: 01 May 1976 Lifetime Generation: 128445.4 GW(e).h
 Date of First Criticality: 04 Jan 1981 Cumulative Energy Availability Factor: 75.1%
 Date of Grid Connection: 21 Jan 1981 Cumulative Load Factor: 71.0%
 Date of Commercial Operation: 01 Aug 1983 Cumulative Unit Capability Factor: 76.6%
 Cumulative Energy Unavailability Factor: 24.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	2970.0	880.0	92.0	92.0	92.0	92.0	91.9	91.9	3447	93.8
1984	4401.0	880.0	56.0	66.6	56.0	66.6	56.9	67.2	5042	57.4
1985	5630.4	880.0	76.1	70.5	75.0	70.1	73.0	69.6	6827	77.9
1986	5476.4	880.0	79.8	73.2	79.7	72.9	71.0	70.0	7144	81.6
1987	5171.3	880.0	76.8	74.0	76.1	73.6	67.1	69.4	6667	76.1
1988	5721.0	915.0	76.3	74.5	75.9	74.1	71.2	69.7	6464	73.6
1989	6609.8	915.0	85.4	76.2	82.7	75.4	82.5	71.8	7699	87.9
1990	6113.7	915.0	86.3	77.6	84.1	76.6	76.3	72.4	7089	80.9
1991	4005.4	915.0	53.7	74.7	52.3	73.7	50.0	69.7	4736	54.1
1992	5621.1	915.0	75.4	74.8	74.0	73.7	69.9	69.7	6690	76.2
1993	5668.5	915.0	75.3	74.8	72.4	73.6	70.7	69.8	6821	77.9
1994	6095.7	915.0	87.0	75.9	85.1	74.6	76.1	70.4	7252	82.8
1995	4443.0	915.0	64.3	75.0	60.3	73.4	55.4	69.1	5211	59.5
1996	5541.1	915.0	79.1	75.3	78.8	73.9	68.9	69.1	6888	78.4
1997	5132.6	915.0	76.2	75.3	75.4	74.0	64.0	68.8	6404	73.1
1998	6030.7	915.0	84.6	75.9	82.1	74.5	75.2	69.2	7366	84.1
1999	5062.6	915.0	69.7	75.6	67.9	74.1	63.2	68.8	6207	70.9
2000	5086.7	915.0	66.4	75.0	66.0	73.6	63.3	68.5	5957	67.8
2001	6814.8	915.0	86.8	75.7	86.4	74.3	85.0	69.4	7735	88.3
2002	6637.0	890.0	85.2	76.2	82.9	74.8	85.1	70.2	7592	86.7
2003	6630.4	915.0	86.5	76.7	82.8	75.2	82.7	70.8	7658	87.4
2004	6364.2	915.0	82.4	76.9	80.4	75.4	79.2	71.2	7356	83.7
2005	5384.1	915.0	69.5	76.6	68.1	75.1	67.2	71.0	6186	70.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		312			533	
B. Refuelling without a maintenance				38	4	
C. Inspection, maintenance or repair combined with refuelling	2208			1155	22	
E. Testing of plant systems or components				11	2	0
H. Nuclear regulatory requirements					1	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					408	17
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant , spare part delivery problems etc.)					2	
Z. Others		56			0	
Subtotal	2208	368	0	1204	972	17
Total		2576			2193	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems	12	43
13. Reactor Auxiliary Systems	120	14
14. Safety Systems	120	39
15. Reactor Cooling Systems		11
16. Steam generation systems		89
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries	24	52
32. Feedwater and Main Steam System		16
33. Circulating Water System	12	3
41. Main Generator Systems		180
42. Electrical Power Supply Systems		13
XX. Miscellaneous Systems	24	15
Total	312	489

FR-23 ST. LAURENT-B-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 880.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5728.0 GW(e).h
 Energy Availability Factor: 77.0%
 Load Factor: 71.5%
 Operating Factor: 80.3%
 Energy Unavailability Factor: 23.0%
 Total Off-line Time: 1723 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	598.6	186.1	0.0	505.3	543.8	534.1	222.2	624.5	602.4	622.6	627.2	661.3	5728.0
EAF (%)	88.0	30.7	0.1	78.6	87.2	99.6	39.2	99.9	99.9	98.9	100.0	99.4	77.0
UCF (%)	99.9	39.3	0.1	78.6	87.2	99.6	39.2	99.9	99.9	98.9	100.0	99.4	78.6
LF (%)	87.9	30.3	0.0	76.7	79.9	81.1	32.6	91.7	91.4	91.3	95.2	97.1	71.5
OF (%)	100.0	39.3	0.0	93.1	89.4	100.0	40.6	100.0	100.0	100.0	100.0	100.0	80.3
EUF (%)	12.0	69.3	99.9	21.4	12.8	0.4	60.8	0.1	0.1	1.1	0.0	0.6	23.0
PUF (%)	0.1	60.8	75.8	6.9	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.6	11.8
UCLF (%)	0.0	0.0	24.1	14.5	12.7	0.3	60.8	0.1	0.0	1.0	0.0	0.1	9.6
XUF (%)	11.8	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Jul 1976 Lifetime Generation: 129707.4 GW(e).h
 Date of First Criticality: 12 May 1981 Cumulative Energy Availability Factor: 75.9%
 Date of Grid Connection: 01 Jun 1981 Cumulative Load Factor: 70.0%
 Date of Commercial Operation: 01 Aug 1983 Cumulative Unit Capability Factor: 77.6%
 Cumulative Energy Unavailability Factor: 24.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	512.0	880.0	16.1	16.1	16.1	16.1	15.8	15.8	615	16.7
1984	5724.0	880.0	88.9	67.4	88.9	67.4	74.0	56.9	7237	82.4
1985	5295.6	880.0	77.6	71.6	75.7	70.8	68.7	61.8	6806	77.7
1986	5662.8	880.0	81.7	74.6	79.8	73.4	73.5	65.2	7337	83.8
1987	5060.2	880.0	79.9	75.8	79.4	74.8	65.6	65.3	6798	77.6
1988	5108.0	880.0	69.6	74.6	69.6	73.8	66.1	65.4	6262	71.3
1989	5034.0	880.0	81.4	75.7	75.9	74.2	65.3	65.4	6490	74.1
1990	5165.9	915.0	73.8	75.4	71.3	73.8	64.4	65.3	6212	70.9
1991	6043.0	915.0	86.1	76.7	84.2	75.0	75.4	66.5	7374	84.2
1992	5490.1	915.0	80.6	77.1	79.4	75.5	68.3	66.7	6982	79.5
1993	5042.2	915.0	68.7	76.3	64.1	74.4	62.9	66.3	6149	70.2
1994	6322.7	915.0	83.7	77.0	81.2	75.0	78.9	67.5	7406	84.5
1995	5311.3	915.0	72.9	76.6	72.1	74.8	66.3	67.4	6720	76.7
1996	6057.7	915.0	82.2	77.1	80.8	75.2	75.4	68.0	7303	83.1
1997	5960.7	915.0	80.8	77.3	78.1	75.4	74.4	68.4	7147	81.6
1998	6415.3	915.0	85.7	77.9	83.2	75.9	80.0	69.2	7585	86.6
1999	5845.9	915.0	79.0	77.9	77.3	76.0	72.9	69.4	7013	80.1
2000	5134.0	915.0	67.6	77.3	67.0	75.5	63.9	69.1	6069	69.1
2001	6046.7	915.0	81.7	77.6	80.1	75.7	75.4	69.4	7226	82.5
2002	6215.0	890.0	82.2	77.8	82.2	76.1	79.7	70.0	7434	84.9
2003	4702.4	915.0	61.6	77.0	61.6	75.4	58.7	69.4	5580	63.7
2004	6468.6	915.0	87.6	77.5	85.6	75.8	80.5	69.9	7838	89.2
2005	5728.0	915.0	78.6	77.6	77.0	75.9	71.5	70.0	7038	80.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		156			640	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	972			1040	17	
D. Inspection, maintenance or repair without refuelling				7		
E. Testing of plant systems or components				9	1	
H. Nuclear regulatory requirements					14	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					149	
Z. Others		166				
Subtotal	972	322	0	1056	829	0
Total		1294			1885	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		15
12. Reactor I&C Systems	35	20
13. Reactor Auxiliary Systems		12
14. Safety Systems		51
15. Reactor Cooling Systems	11	54
16. Steam generation systems		41
21. Fuel Handling and Storage Facilities		3
31. Turbine and auxiliaries	55	250
32. Feedwater and Main Steam System	55	14
41. Main Generator Systems		71
42. Electrical Power Supply Systems		27
XX. Miscellaneous Systems		1
Total	156	559

FR-18 TRICASTIN-1

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor FRAM (FRAMATOME)

Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 915.0 MW(e)
 Design Discharge Burnup: 42000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5831.0 GW(e).h
 Energy Availability Factor: 74.0%
 Load Factor: 72.7%
 Operating Factor: 80.0%
 Energy Unavailability Factor: 26.0%
 Total Off-line Time: 1754 hours

2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	658.8	560.7	641.0	415.4	0.0	326.2	381.3	346.1	608.6	650.0	640.3	602.7	5831.0
EAF (%)	100.0	92.7	96.9	63.6	0.0	50.2	56.8	52.0	93.0	96.1	98.5	90.2	74.0
UCF (%)	100.0	93.0	99.3	73.4	0.0	75.9	98.4	100.0	96.7	98.6	99.4	90.2	85.3
LF (%)	96.8	91.2	94.2	63.1	0.0	49.5	56.0	50.8	92.4	95.4	97.2	88.5	72.7
OF (%)	100.0	93.3	99.9	73.8	0.0	69.9	79.6	57.5	97.2	100.0	100.0	90.6	80.0
EUF (%)	0.0	7.3	3.1	36.4	100.0	49.8	43.2	48.0	7.0	3.9	1.5	9.8	26.0
PUF (%)	0.0	0.0	0.0	26.6	100.0	16.3	0.0	0.0	0.1	0.0	0.1	0.0	12.0
UCLF (%)	0.1	7.0	0.7	0.0	0.0	7.9	1.6	0.0	3.2	1.4	0.5	9.8	2.6
XUF (%)	0.0	0.3	2.4	9.9	0.0	25.7	41.6	48.0	3.7	2.5	0.9	0.0	11.4

UCLF replaces previously used UUF.

2005 Summary of Operation

LOAD FOLLOWING

Historical Summary

Date of Construction Start: 01 Nov 1974 Lifetime Generation: 146571.7 GW(e).h
 Date of First Criticality: 21 Feb 1980 Cumulative Energy Availability Factor: 76.1%
 Date of Grid Connection: 31 May 1980 Cumulative Load Factor: 72.0%
 Date of Commercial Operation: 01 Dec 1980 Cumulative Unit Capability Factor: 79.5%
 Cumulative Energy Unavailability Factor: 23.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	656.0	920.0	100.0	100.0	56.6	56.6	95.8	95.8	722	97.0
1981	4416.0	920.0	56.3	59.8	56.3	56.4	54.8	58.0	5176	59.1
1982	5909.8	915.0	90.4	74.4	81.9	68.6	73.7	65.5	8151	93.0
1983	5111.0	915.0	68.8	72.6	67.2	68.1	63.8	65.0	6097	69.6
1984	6468.0	915.0	86.7	76.0	86.7	72.7	80.5	68.8	7662	87.2
1985	6217.9	915.0	86.0	78.0	81.6	74.4	77.6	70.5	7560	86.3
1986	5880.3	915.0	79.4	78.2	77.0	74.9	73.4	71.0	7188	82.1
1987	5978.1	915.0	83.5	79.0	78.2	75.3	74.6	71.5	7360	84.0
1988	5836.0	915.0	79.8	79.1	76.7	75.5	72.6	71.6	7200	82.0
1989	5830.2	915.0	83.3	79.5	83.2	76.3	72.7	71.7	7550	86.2
1990	5099.7	915.0	68.8	78.5	65.1	75.2	63.6	70.9	6377	72.8
1991	5909.1	915.0	83.2	78.9	77.0	75.4	73.7	71.2	7262	82.9
1992	5659.3	915.0	85.3	79.4	83.0	76.0	70.4	71.1	7573	86.2
1993	6134.8	915.0	83.9	79.8	77.7	76.1	76.5	71.5	7393	84.4
1994	5008.4	915.0	75.4	79.5	70.3	75.7	62.5	70.9	6458	73.7
1995	5372.7	915.0	71.3	78.9	70.6	75.4	67.0	70.6	6374	72.8
1996	7302.1	915.0	94.5	79.9	93.8	76.5	90.9	71.9	8448	96.2
1997	5548.3	915.0	73.1	79.5	72.5	76.3	69.2	71.7	6711	76.6
1998	5503.7	915.0	71.0	79.0	71.0	76.0	68.7	71.6	7075	80.8
1999	3426.7	915.0	44.9	77.2	44.5	74.4	42.8	70.1	4016	45.8
2000	6644.9	915.0	87.7	77.8	87.1	75.0	82.7	70.7	7842	89.3
2001	6053.3	915.0	83.2	78.0	82.0	75.3	75.5	70.9	7261	82.9
2002	6384.6	880.0	87.2	78.4	86.1	75.8	82.8	71.4	7778	88.8
2003	5670.1	915.0	85.2	78.7	73.0	75.7	70.7	71.4	7029	80.2
2004	6832.5	915.0	91.5	79.2	89.0	76.2	85.0	72.0	8049	91.6
2005	5831.0	915.0	85.3	79.5	74.0	76.1	72.7	72.0	7007	80.0

Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		124			352	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	1007			1081	11	
D. Inspection, maintenance or repair without refuelling				23	2	
E. Testing of plant systems or components				5	0	
H. Nuclear regulatory requirements						3
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					33	
Z. Others		48				
Subtotal	1007	172	0	1109	404	4
Total		1179			1517	

Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		100
12. Reactor I&C Systems	9	4
13. Reactor Auxiliary Systems		2
14. Safety Systems		2
15. Reactor Cooling Systems		20
16. Steam generation systems		42
21. Fuel Handling and Storage Facilities		9
31. Turbine and auxiliaries	38	33
32. Feedwater and Main Steam System	54	6
41. Main Generator Systems		92
42. Electrical Power Supply Systems	23	15
Total	124	325

FR-19 TRICASTIN-2

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 915.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5878.7 GW(e).h
 Energy Availability Factor: 77.8%
 Load Factor: 73.3%
 Operating Factor: 81.4%
 Energy Unavailability Factor: 22.2%
 Total Off-line Time: 1633 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	652.7	598.7	646.2	622.1	637.3	429.4	628.5	163.5	359.4	590.9	550.0	0.0	5878.7
EAF (%)	99.9	99.8	100.0	99.2	98.6	70.0	93.6	24.6	55.6	99.2	96.1	0.0	77.8
UCF (%)	99.9	99.9	100.0	99.2	99.7	100.0	100.0	38.9	59.5	100.0	96.5	0.0	82.6
LF (%)	95.9	97.4	94.9	94.4	93.6	65.2	92.3	24.0	54.6	86.7	83.5	0.0	73.3
OF (%)	100.0	100.0	99.9	100.0	100.0	75.4	100.0	39.0	67.8	100.0	96.5	0.0	81.4
EUF (%)	0.1	0.2	0.0	0.8	1.4	30.0	6.4	75.4	44.4	0.8	3.9	100.0	22.2
PUF (%)	0.0	0.1	0.0	0.7	0.0	0.0	0.0	61.1	27.6	0.0	0.0	0.0	7.5
UCLF (%)	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	12.9	0.0	3.5	100.0	9.9
XUF (%)	0.0	0.1	0.0	0.0	1.1	30.0	6.4	14.3	3.9	0.8	0.4	0.0	4.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Dec 1974 Lifetime Generation: 145234.8 GW(e).h
 Date of First Criticality: 22 Jul 1980 Cumulative Energy Availability Factor: 76.3%
 Date of Grid Connection: 07 Aug 1980 Cumulative Load Factor: 71.8%
 Date of Commercial Operation: 01 Dec 1980 Cumulative Unit Capability Factor: 79.7%
 Cumulative Energy Unavailability Factor: 23.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	466.0	920.0	100.0	100.0	68.7	68.7	68.1	68.1	568	76.3
1981	6155.1	920.0	100.0	100.0	82.3	81.3	76.4	75.7	7819	89.3
1982	4056.2	915.0	63.0	82.3	63.0	72.5	50.6	63.7	5932	67.7
1983	5624.0	915.0	81.9	82.2	81.9	75.6	70.2	65.8	7245	82.7
1984	6603.0	915.0	87.2	83.4	87.2	78.4	82.2	69.8	7684	87.5
1985	6261.7	915.0	86.0	83.9	79.4	78.6	78.1	71.4	7375	84.2
1986	6286.6	915.0	85.8	84.2	82.6	79.3	78.4	72.6	7631	87.1
1987	5302.3	915.0	73.2	82.7	69.6	77.9	66.2	71.7	6500	74.2
1988	4896.0	915.0	76.0	81.8	73.1	77.3	60.9	70.3	6628	75.5
1989	5164.7	915.0	74.3	81.0	71.4	76.7	64.4	69.7	6650	75.9
1990	5614.4	915.0	80.9	81.0	72.5	76.2	70.0	69.7	7177	81.9
1991	4459.1	915.0	60.8	79.2	58.2	74.6	55.6	68.5	5429	62.0
1992	6099.1	915.0	80.0	79.3	78.7	75.0	75.9	69.1	7118	81.0
1993	5777.1	915.0	77.3	79.1	72.9	74.8	72.1	69.3	6876	78.5
1994	6216.7	915.0	81.7	79.3	79.1	75.1	77.6	69.9	7222	82.4
1995	6312.3	915.0	84.6	79.6	81.6	75.5	78.8	70.5	7504	85.7
1996	6391.3	915.0	84.9	80.0	82.1	75.9	79.5	71.0	7615	86.7
1997	5218.8	915.0	68.5	79.3	66.8	75.4	65.1	70.7	6107	69.7
1998	6293.9	915.0	83.0	79.5	81.2	75.7	78.5	71.1	7354	83.9
1999	5661.5	915.0	75.0	79.3	73.0	75.6	70.6	71.1	6674	76.2
2000	4293.8	915.0	56.7	78.1	55.3	74.6	53.4	70.2	5092	58.0
2001	6710.5	915.0	87.2	78.6	87.1	75.2	83.7	70.9	7779	88.8
2002	6593.9	880.0	86.6	78.9	86.3	75.7	85.5	71.5	7714	88.1
2003	6196.0	915.0	88.4	79.3	84.4	76.0	77.3	71.7	7521	85.9
2004	5684.2	915.0	86.4	79.6	80.7	76.2	70.7	71.7	7271	82.8
2005	5878.7	915.0	82.6	79.7	77.8	76.3	73.3	71.8	7128	81.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		846			322	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	599			1064	39	
D. Inspection, maintenance or repair without refuelling				39		
E. Testing of plant systems or components				5	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					38	46
L. Human factor related					0	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						7
Z. Others					0	
Subtotal	599	846	0	1108	404	53
Total		1445			1565	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
12. Reactor I&C Systems	26	42
13. Reactor Auxiliary Systems		9
14. Safety Systems		24
15. Reactor Cooling Systems		47
16. Steam generation systems		11
21. Fuel Handling and Storage Facilities	48	24
31. Turbine and auxiliaries		54
32. Feedwater and Main Steam System	3	7
41. Main Generator Systems	769	0
42. Electrical Power Supply Systems		11
Total	846	234

FR-25 TRICASTIN-3

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 915.0 MW(e)

Design Net Capacity: 915.0 MW(e)

Design Discharge Burnup: 33735 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6563.0 GW(e).h

Energy Availability Factor: 86.1%

Load Factor: 81.9%

Operating Factor: 91.1%

Energy Unavailability Factor: 13.9%

Total Off-line Time: 780 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	657.7	535.0	62.9	539.5	636.6	541.4	594.5	566.7	613.1	576.5	547.1	692.0	6563.0
EAF (%)	96.6	87.0	10.5	81.9	100.0	89.4	89.3	91.9	96.8	98.8	92.0	100.0	86.1
UCF (%)	100.0	100.0	13.0	81.9	100.0	100.0	100.0	99.7	100.0	100.0	92.0	100.0	90.4
LF (%)	96.6	87.0	9.2	81.9	93.5	82.2	87.3	83.2	93.1	84.6	83.0	101.7	81.9
OF (%)	100.0	100.0	13.0	86.9	100.0	100.0	100.0	100.0	100.0	100.0	94.6	100.0	91.1
EUF (%)	3.4	13.0	89.5	18.1	0.0	10.6	10.7	8.1	3.2	1.2	8.0	0.0	13.9
PUF (%)	0.0	0.0	87.0	5.8	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	7.9
UCLF (%)	0.0	0.0	0.0	12.3	0.0	0.0	0.0	0.3	0.0	0.0	8.0	0.0	1.7
XUF (%)	3.4	13.0	2.5	0.0	0.0	10.6	10.6	7.8	3.1	1.2	0.0	0.0	4.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

LOAD FOLLOWING

5. Historical Summary

Date of Construction Start: 01 Apr 1975

Date of First Criticality: 29 Nov 1980

Date of Grid Connection: 10 Feb 1981

Date of Commercial Operation: 11 May 1981

Lifetime Generation: 149408.9 GW(e).h

Cumulative Energy Availability Factor: 78.6%

Cumulative Load Factor: 75.2%

Cumulative Unit Capability Factor: 81.6%

Cumulative Energy Unavailability Factor: 21.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	3998.5	920.0	100.0	100.0	78.0	78.0	73.9	73.9	4815	81.9
1982	5067.3	915.0	65.8	79.6	65.8	70.7	63.2	67.5	5966	68.1
1983	6342.0	915.0	84.7	81.5	82.8	75.2	79.1	71.9	7544	86.1
1984	6682.0	915.0	86.1	82.8	85.1	77.9	83.1	74.9	7668	87.3
1985	7166.0	915.0	97.1	85.8	94.3	81.4	89.4	78.0	8518	97.2
1986	6230.4	915.0	86.8	86.0	83.5	81.8	77.7	78.0	7704	87.9
1987	5654.3	915.0	76.9	84.6	75.4	80.8	70.5	76.9	6810	77.7
1988	5722.0	915.0	80.3	84.1	78.0	80.5	71.2	76.1	7106	80.9
1989	5834.6	915.0	80.9	83.7	75.9	79.9	72.8	75.7	7188	82.1
1990	6457.2	915.0	85.8	83.9	84.6	80.4	80.6	76.2	7671	87.6
1991	4746.8	915.0	66.5	82.3	62.1	78.7	59.2	74.6	5941	67.8
1992	5199.0	915.0	67.5	81.0	66.6	77.7	64.7	73.8	6010	68.4
1993	6423.9	915.0	83.3	81.2	81.4	78.0	80.1	74.3	7373	84.2
1994	6496.5	915.0	86.3	81.6	83.6	78.4	81.1	74.8	7641	87.2
1995	6494.7	915.0	87.0	81.9	85.1	78.8	81.0	75.2	7675	87.6
1996	5806.7	915.0	79.3	81.8	76.2	78.7	72.2	75.0	7172	81.6
1997	6192.8	915.0	82.6	81.8	79.1	78.7	77.3	75.2	7331	83.7
1998	6359.5	915.0	82.3	81.8	80.5	78.8	79.3	75.4	7375	84.2
1999	5731.7	915.0	76.7	81.6	74.0	78.5	71.5	75.2	6828	77.9
2000	5985.2	915.0	82.3	81.6	79.0	78.6	74.5	75.1	7325	83.4
2001	4929.5	915.0	65.8	80.8	65.2	77.9	61.5	74.5	5777	65.9
2002	5976.1	880.0	79.7	80.8	79.4	78.0	77.5	74.6	7140	81.5
2003	6144.9	915.0	86.9	81.1	79.7	78.0	76.7	74.7	7607	86.8
2004	6377.1	915.0	84.3	81.2	82.9	78.3	79.3	74.9	7455	84.9
2005	6563.0	915.0	90.4	81.6	86.1	78.6	81.9	75.2	7981	91.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		89			323	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	648			1072	10	
D. Inspection, maintenance or repair without refuelling				38		
E. Testing of plant systems or components				6	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					28	
L. Human factor related					0	
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant , spare part delivery problems etc.)					8	
Z. Others					1	
Subtotal	648	89	0	1116	384	0
Total		737			1500	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		14
12. Reactor I&C Systems		43
13. Reactor Auxiliary Systems		11
14. Safety Systems		19
15. Reactor Cooling Systems		53
16. Steam generation systems		4
31. Turbine and auxiliaries		60
32. Feedwater and Main Steam System		7
33. Circulating Water System	89	
41. Main Generator Systems		92
42. Electrical Power Supply Systems		2
Total	89	305

FR-26 TRICASTIN-4

Operator: EDF (ELECTRICITE DE FRANCE)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 915.0 MW(e)
 Design Discharge Burnup: 33735 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6501.4 GW(e).h
 Energy Availability Factor: 83.6%
 Load Factor: 81.1%
 Operating Factor: 88.2%
 Energy Unavailability Factor: 16.4%
 Total Off-line Time: 1033 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	686.3	616.9	614.0	658.9	639.1	505.8	91.2	464.4	501.5	646.0	639.5	437.7	6501.4
EAF (%)	100.0	99.5	100.0	99.8	94.0	76.8	14.3	74.5	82.1	98.9	99.7	66.3	83.6
UCF (%)	100.0	100.0	100.0	99.8	96.7	100.0	25.9	86.4	93.0	100.0	99.7	66.3	88.8
LF (%)	100.8	100.3	90.2	100.0	93.9	76.8	13.4	68.2	76.1	94.8	97.1	64.3	81.1
OF (%)	100.0	100.0	90.3	100.0	97.0	100.0	25.9	92.2	88.6	100.0	100.0	66.7	88.2
EUf (%)	0.0	0.5	0.0	0.2	6.0	23.2	85.7	25.5	17.9	1.1	0.3	33.7	16.4
PUF (%)	0.0	0.0	0.0	0.1	0.0	0.0	74.1	13.6	0.0	0.0	0.1	0.0	7.5
UCLF (%)	0.0	0.0	0.0	0.1	3.3	0.0	0.0	0.0	7.0	0.0	0.2	33.7	3.7
XUF (%)	0.0	0.5	0.0	0.1	2.7	23.2	11.5	11.9	10.9	1.1	0.0	0.0	5.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

END OF BASE LOAD OPERATION

5. Historical Summary

Date of Construction Start: 01 May 1975 Lifetime Generation: 142258.6 GW(e).h
 Date of First Criticality: 31 May 1981 Cumulative Energy Availability Factor: 78.7%
 Date of Grid Connection: 12 Jun 1981 Cumulative Load Factor: 72.9%
 Date of Commercial Operation: 01 Nov 1981 Cumulative Unit Capability Factor: 81.9%
 Cumulative Energy Unavailability Factor: 21.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	1283.6	920.0	100.0	100.0	97.2	97.2	95.3	95.3	1462	99.9
1982	5470.5	915.0	69.8	74.2	69.8	73.8	68.2	72.1	6311	72.0
1983	6170.0	915.0	82.6	78.1	80.7	77.0	77.0	74.4	7386	84.3
1984	5446.0	915.0	91.8	82.4	87.1	80.2	67.8	72.3	7587	86.4
1985	6161.7	915.0	91.3	84.6	84.8	81.3	76.9	73.4	7816	89.2
1986	5873.9	915.0	85.7	84.8	81.8	81.4	73.3	73.4	7568	86.4
1987	5725.7	915.0	84.2	84.7	80.1	81.2	71.4	73.0	7257	82.8
1988	3770.0	915.0	67.7	82.3	66.2	79.1	46.9	69.4	4772	54.3
1989	5729.1	915.0	82.9	82.4	79.8	79.2	71.5	69.7	7335	83.7
1990	5201.6	915.0	82.7	82.4	77.4	79.0	64.9	69.1	7329	83.7
1991	5742.8	915.0	77.1	81.9	74.5	78.5	71.6	69.4	6838	78.1
1992	6459.3	915.0	90.2	82.6	86.7	79.3	80.4	70.4	7968	90.7
1993	5302.8	915.0	80.1	82.4	70.9	78.6	66.2	70.0	6842	78.1
1994	5953.0	915.0	80.9	82.3	77.8	78.5	74.3	70.3	7049	80.5
1995	6208.9	915.0	85.7	82.5	82.0	78.8	77.5	70.8	7562	86.3
1996	6700.4	915.0	87.6	82.9	86.5	79.3	83.4	71.7	7774	88.5
1997	6488.8	915.0	86.0	83.1	84.8	79.6	81.0	72.2	7595	86.7
1998	5913.0	915.0	80.4	82.9	76.2	79.4	73.8	72.3	7138	81.5
1999	5887.9	915.0	80.5	82.8	78.0	79.3	73.5	72.4	7158	81.7
2000	5780.3	915.0	77.4	82.5	75.8	79.2	71.9	72.4	6873	78.2
2001	6036.9	915.0	83.0	82.5	81.2	79.3	75.3	72.5	7138	81.5
2002	6260.6	880.0	83.3	82.6	81.2	79.4	81.2	72.9	7168	81.8
2003	6387.9	915.0	82.9	82.6	79.9	79.4	79.7	73.2	7399	84.5
2004	4724.1	915.0	59.8	81.6	58.8	78.5	58.8	72.6	5359	61.0
2005	6501.4	915.0	88.8	81.9	83.6	78.7	81.1	72.9	7728	88.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					242	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	610			1050	12	
D. Inspection, maintenance or repair without refuelling				23		
E. Testing of plant systems or components				1		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					87	11
L. Human factor related		48				
Z. Others					3	
Subtotal	610	48	0	1074	345	11
Total		658			1430	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		26
12. Reactor I&C Systems		18
13. Reactor Auxiliary Systems		9
14. Safety Systems		34
15. Reactor Cooling Systems		22
16. Steam generation systems		34
31. Turbine and auxiliaries		14
32. Feedwater and Main Steam System		6
41. Main Generator Systems		46
42. Electrical Power Supply Systems		9
Total	0	218

DE-12 BIBLIS-A (KWB A)

Operator: RWE (RWE ENERGIE AG)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1167.0 MW(e)
Design Net Capacity: 1146.0 MW(e)
Design Discharge Burnup: 36000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7355.9 GW(e).h
Energy Availability Factor: 72.7%
Load Factor: 71.9%
Operating Factor: 74.1%
Energy Unavailability Factor: 27.3%
Total Off-line Time: 2272 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	852.7	781.3	504.3	0.0	0.0	249.2	812.2	803.4	813.8	845.7	833.4	860.2	7355.9
EAF (%)	98.5	99.3	58.1	0.0	0.0	30.3	98.2	93.3	97.6	98.0	100.0	99.0	72.7
UCF (%)	98.5	99.3	58.2	0.0	0.0	31.6	99.6	95.7	100.0	98.9	100.0	99.0	73.4
LF (%)	98.2	99.6	58.1	0.0	0.0	29.7	93.5	92.5	96.8	97.3	99.2	99.1	71.9
OF (%)	100.0	100.0	58.5	0.0	0.0	32.5	100.0	98.3	100.0	100.0	100.0	100.0	74.1
EUF (%)	1.5	0.7	41.9	100.0	100.0	69.7	1.8	6.7	2.4	2.0	0.0	1.0	27.3
PUF (%)	0.1	0.0	41.7	100.0	100.0	56.5	0.4	0.0	0.0	0.8	0.0	1.0	25.1
UCLF (%)	1.4	0.7	0.1	0.0	0.0	11.9	0.0	4.3	0.0	0.3	0.0	0.0	1.5
XUF (%)	0.0	0.0	0.1	0.0	0.0	1.2	1.5	2.4	2.4	0.8	0.0	0.0	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

WORLDWIDE AS FIRST DUAL-UNIT PLANT THE POWER PLANT BIBLIS ACHIEVED THE OPERATION AIM (GROSS) FROM 450000 GWH ON 2005-09-21. TO THIS THE UNITS A AND B MADE NEARLY THE SAME CONDITIONS.

5. Historical Summary

Date of Construction Start: 01 Jan 1970
Date of First Criticality: 16 Jul 1974
Date of Grid Connection: 25 Aug 1974
Date of Commercial Operation: 26 Feb 1975

Lifetime Generation: 209670.6 GW(e).h
Cumulative Energy Availability Factor: 71.2%
Cumulative Load Factor: 67.2%
Cumulative Unit Capability Factor: 75.4%
Cumulative Energy Unavailability Factor: 28.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	7571.9	1146.0	82.4	82.4	82.4	82.4	82.4	82.4	6886	85.9
1976	5102.8	1146.0	100.0	91.6	52.7	66.9	50.7	65.8	4617	52.6
1977	6164.5	1089.0	100.0	94.4	65.4	66.4	64.6	65.4	5970	68.2
1978	7067.1	1089.0	100.0	95.8	70.0	67.3	74.1	67.6	6524	74.5
1979	6569.0	1089.0	100.0	96.6	87.4	71.3	68.9	67.8	7507	85.7
1980	3855.0	1146.0	43.6	87.4	42.5	66.3	38.3	62.7	4119	46.9
1981	6844.3	1146.0	70.1	84.9	69.6	66.8	68.2	63.5	6288	71.8
1982	8994.3	1146.0	87.6	85.2	86.6	69.3	89.6	66.9	7723	88.2
1983	7766.0	1146.0	76.7	84.2	75.8	70.1	77.4	68.1	6783	77.4
1984	6901.0	1146.0	67.9	82.6	67.9	69.8	68.6	68.1	6175	70.3
1985	7564.9	1146.0	79.2	82.3	75.1	70.3	75.4	68.8	6797	77.6
1986	6968.1	1146.0	76.9	81.8	76.9	70.9	69.4	68.8	7227	82.5
1987	7467.8	1146.0	80.9	81.7	80.9	71.7	74.4	69.3	7154	81.7
1988	5985.4	1146.0	72.5	81.1	72.5	71.7	59.5	68.6	6594	75.1
1989	6431.0	1146.0	66.9	80.1	66.9	71.4	64.1	68.3	5904	67.4
1990	5052.7	1146.0	53.1	78.4	53.1	70.2	50.3	67.1	4676	53.4
1991	6931.0	1146.0	76.3	78.3	76.3	70.6	69.0	67.2	6778	77.4
1992	6884.8	1146.0	79.6	78.3	79.6	71.1	68.4	67.3	7024	80.0
1993	8240.7	1146.0	97.5	79.4	97.5	72.5	82.1	68.1	8558	97.7
1994	7483.6	1146.0	76.8	79.2	76.8	72.7	74.5	68.4	6697	76.4
1995	2509.4	1167.0	30.0	76.8	30.0	70.7	24.8	66.3	2655	30.3
1996	4012.5	1167.0	39.7	75.1	39.7	69.2	39.1	65.0	3503	39.9
1997	8002.3	1167.0	87.0	75.6	87.0	70.0	78.3	65.6	7648	87.3
1998	10042.3	1167.0	99.7	76.7	99.7	71.3	98.2	67.0	8752	99.9
1999	7251.1	1167.0	78.0	76.7	78.0	71.5	70.9	67.2	6865	78.4
2000	5910.1	1167.0	62.5	76.1	62.5	71.2	57.7	66.8	5497	62.6
2001	9532.0	1167.0	94.9	76.9	94.9	72.1	93.2	67.8	8334	95.1
2002	6167.7	1167.0	68.1	76.5	68.1	71.9	60.3	67.5	5988	68.4
2003	2695.8	1167.0	26.6	74.8	26.6	70.3	26.4	66.1	2406	27.5
2004	9645.5	1167.0	95.2	75.5	95.2	71.2	94.1	67.0	8395	95.6
2005	7355.9	1167.0	73.4	75.4	72.7	71.2	71.9	67.2	6489	74.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		13			839	
B. Refuelling without a maintenance				8	3	
C. Inspection, maintenance or repair combined with refuelling	2172	85		1351		
D. Inspection, maintenance or repair without refuelling				38		
E. Testing of plant systems or components				28	7	
H. Nuclear regulatory requirements					13	20
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				2	4	0
Subtotal	2172	98	0	1427	866	20
Total	2270			2313		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		12
12. Reactor I&C Systems		22
13. Reactor Auxiliary Systems		4
14. Safety Systems		412
15. Reactor Cooling Systems	13	205
16. Steam generation systems		81
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities		7
31. Turbine and auxiliaries		32
32. Feedwater and Main Steam System		22
33. Circulating Water System		3
41. Main Generator Systems		31
42. Electrical Power Supply Systems		1
Total	13	833

DE-18 BIBLIS-B (KWB B)

Operator: RWE (RWE ENERGIE AG)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1240.0 MW(e)
Design Net Capacity: 1178.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6892.5 GW(e).h
Energy Availability Factor: 64.0%
Load Factor: 63.5%
Operating Factor: 68.7%
Energy Unavailability Factor: 36.0%
Total Off-line Time: 2746 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	917.2	832.9	804.4	879.5	892.1	847.5	840.5	658.6	33.3	0.0	0.0	186.5	6892.5
EAF (%)	100.0	100.0	87.9	99.6	98.6	96.1	92.3	71.8	3.7	-0.1	0.0	20.4	64.0
UCF (%)	100.0	100.0	87.9	100.0	100.0	99.6	100.0	100.0	6.4	-0.1	0.0	20.4	67.8
LF (%)	99.4	100.0	87.2	98.5	96.7	94.9	91.1	71.4	3.7	0.0	0.0	20.2	63.5
OF (%)	100.0	100.0	88.0	100.0	100.0	100.0	100.0	100.0	6.8	0.0	0.0	29.8	68.7
EUF (%)	0.0	0.0	12.1	0.4	1.4	3.9	7.7	28.2	96.3	100.1	100.0	79.6	36.0
PUF (%)	0.0	0.0	12.1	0.0	0.0	0.4	0.0	0.0	93.6	100.1	100.0	53.5	30.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.1	2.2
XUF (%)	0.0	0.0	0.0	0.4	1.4	3.5	7.7	28.2	2.7	0.0	0.0	0.0	3.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

WORLDWIDE AS FIRST DUAL-UNIT PLANT THE POWER PLANT BIBLIS ACHIEVED THE OPERATION AIM (GROSS) FROM 450000 GWH ON 2005-09-21. TO THIS THE UNITS A AND B MADE NEARLY THE SAME CONTRIBUTIONS.

5. Historical Summary

Date of Construction Start:	01 Feb 1972	Lifetime Generation:	214996.1 GW(e).h
Date of First Criticality:	25 Mar 1976	Cumulative Energy Availability Factor:	75.4%
Date of Grid Connection:	06 Apr 1976	Cumulative Load Factor:	68.5%
Date of Commercial Operation:	31 Jan 1977	Cumulative Unit Capability Factor:	80.9%
		Cumulative Energy Unavailability Factor:	24.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	8017.2	1178.0	100.0	100.0	78.8	78.8	77.7	77.7	7490	85.5
1978	5658.0	1178.0	100.0	100.0	55.3	67.1	54.8	66.3	6015	68.7
1979	6026.0	1178.0	100.0	100.0	77.9	70.7	58.4	63.6	7254	82.8
1980	5592.0	1240.0	100.0	100.0	57.8	67.3	51.3	60.4	5761	65.6
1981	8105.6	1240.0	100.0	100.0	75.4	69.0	74.6	63.4	6804	77.7
1982	9196.0	1240.0	85.5	97.5	85.5	71.8	84.7	67.0	7681	87.7
1983	6490.0	1240.0	60.6	92.1	60.6	70.2	59.7	65.9	5360	61.2
1984	8216.0	1240.0	77.6	90.3	77.6	71.1	75.4	67.2	7338	83.5
1985	7780.2	1240.0	75.3	88.6	75.3	71.6	71.6	67.7	6918	79.0
1986	6722.6	1240.0	68.2	86.5	68.2	71.2	61.9	67.1	6370	72.7
1987	5623.0	1240.0	76.2	85.6	76.2	71.7	51.8	65.7	7273	83.0
1988	5591.8	1240.0	74.8	84.7	74.8	72.0	51.3	64.5	6593	75.1
1989	5165.8	1240.0	53.6	82.2	53.6	70.5	47.6	63.1	4807	54.9
1990	9100.1	1240.0	90.1	82.8	90.1	71.9	83.8	64.6	8631	98.5
1991	3917.8	1240.0	41.1	80.0	39.3	69.7	36.1	62.7	3626	41.4
1992	7630.5	1240.0	81.5	80.1	81.5	70.5	70.1	63.2	7184	81.8
1993	7441.8	1240.0	83.8	80.3	83.8	71.3	68.5	63.5	7368	84.1
1994	7973.8	1240.0	84.9	80.6	84.9	72.0	73.4	64.0	7468	85.3
1995	7854.2	1240.0	75.4	80.3	75.4	72.2	72.3	64.5	6603	75.4
1996	7857.4	1240.0	80.1	80.3	80.1	72.6	72.1	64.9	6762	77.0
1997	8469.4	1240.0	85.9	80.6	85.9	73.3	78.0	65.5	7560	86.3
1998	8182.1	1240.0	84.4	80.7	84.4	73.8	75.3	65.9	7409	84.6
1999	8707.4	1240.0	85.0	80.9	85.0	74.2	80.2	66.6	7474	85.3
2000	8295.7	1240.0	89.2	81.3	89.2	74.9	76.2	67.0	7950	90.5
2001	7442.2	1240.0	73.8	81.0	73.8	74.8	68.5	67.0	6470	73.9
2002	10173.6	1240.0	95.2	81.5	95.2	75.6	93.7	68.1	8371	95.6
2003	7792.0	1240.0	75.3	81.3	75.3	75.6	71.7	68.2	6630	75.7
2004	8768.4	1240.0	82.7	81.3	82.5	75.9	80.5	68.6	7309	83.2
2005	6892.5	1240.0	67.8	80.9	64.0	75.4	63.5	68.5	6014	68.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		194			476	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	2464			1283		
D. Inspection, maintenance or repair without refuelling	88			4		
E. Testing of plant systems or components				3	0	
H. Nuclear regulatory requirements				16	39	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						0
Subtotal	2552	194	0	1306	515	0
Total		2746			1821	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		31
12. Reactor I&C Systems		2
13. Reactor Auxiliary Systems		72
15. Reactor Cooling Systems		178
16. Steam generation systems		130
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		12
32. Feedwater and Main Steam System	194	18
33. Circulating Water System		1
41. Main Generator Systems		28
Total	194	473

DE-32 BROKDORF (KBR)**Operator:** EON (EON Kernkraft Ges.m.b.H)**Contractor:** KWU (SIEMENS KRAFTWERK UNION AG)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1370.0 MW(e)

Design Net Capacity: 1307.0 MW(e)

Design Discharge Burnup: 34000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 11400.7 GW(e).h

Energy Availability Factor: 95.9%

Load Factor: 95.0%

Operating Factor: 96.3%

Energy Unavailability Factor: 4.1%

Total Off-line Time: 328 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1009.6	919.9	1016.6	985.4	1008.1	530.3	956.5	996.3	971.4	1006.7	985.7	1014.1	11400.7
EAF (%)	100.0	100.0	100.0	100.0	99.7	54.0	96.2	100.0	100.0	99.9	100.0	100.0	95.9
UCF (%)	100.0	100.0	100.0	100.0	100.0	56.9	96.2	100.0	100.0	100.0	100.0	100.0	96.1
LF (%)	99.0	99.9	99.7	99.9	98.9	53.8	93.8	97.7	98.5	98.6	99.9	99.5	95.0
OF (%)	100.0	100.0	99.9	100.0	100.0	57.5	97.2	100.0	100.0	100.0	100.0	100.0	96.3
EUF (%)	0.0	0.0	0.0	0.0	0.3	46.0	3.8	0.0	0.0	0.1	0.0	0.0	4.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	43.1	3.5	0.0	0.0	0.0	0.0	0.0	3.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.3	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Jan 1976 **Lifetime Generation:** 197401.9 GW(e).h

Date of First Criticality: 08 Oct 1986 **Cumulative Energy Availability Factor:** 89.8%

Date of Grid Connection: 14 Oct 1986 **Cumulative Load Factor:** 87.4%

Date of Commercial Operation: 22 Dec 1986 **Cumulative Unit Capability Factor:** 89.9%

Cumulative Energy Unavailability Factor: 10.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	296.8	1307.0	100.0	100.0	100.0	100.0	30.5	30.5	228	30.6
1987	9481.3	1307.0	85.2	86.3	85.2	86.3	82.8	78.7	7477	85.4
1988	8581.8	1326.0	85.2	85.8	85.2	85.8	73.7	76.3	7014	79.8
1989	8991.3	1326.0	80.0	83.9	80.0	83.9	77.4	76.6	7134	81.4
1990	8337.2	1326.0	72.5	81.1	72.5	81.1	71.8	75.4	6447	73.6
1991	9492.7	1326.0	85.7	82.0	85.7	82.0	81.7	76.7	7542	86.1
1992	10788.0	1326.0	96.0	84.3	96.0	84.3	92.6	79.3	8461	96.3
1993	9447.1	1326.0	85.6	84.5	84.8	84.4	81.3	79.6	7441	84.9
1994	10228.6	1326.0	88.7	85.0	88.7	84.9	88.1	80.6	7793	89.0
1995	9912.4	1326.0	86.6	85.2	86.6	85.1	85.3	81.2	7833	89.4
1996	10555.4	1326.0	93.2	86.0	93.2	85.9	90.6	82.1	8212	93.5
1997	11249.3	1326.0	95.1	86.8	95.1	86.7	96.8	83.4	8328	95.1
1998	10752.3	1326.0	92.6	87.3	90.4	87.0	92.6	84.2	7966	90.9
1999	11093.3	1370.0	93.3	87.8	93.3	87.5	92.4	84.8	8177	93.3
2000	11335.1	1370.0	95.6	88.3	95.6	88.1	94.2	85.5	8397	95.6
2001	11215.4	1370.0	95.0	88.8	95.0	88.6	93.5	86.1	8331	95.1
2002	11336.9	1370.0	95.8	89.2	95.8	89.0	94.5	86.6	8405	95.9
2003	10564.6	1370.0	90.1	89.3	90.1	89.1	88.0	86.7	7903	90.2
2004	11040.8	1370.0	94.7	89.6	94.7	89.4	91.7	87.0	8327	94.8
2005	11400.7	1370.0	96.1	89.9	95.9	89.8	95.0	87.4	8433	96.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					94	
B. Refuelling without a maintenance					17	
C. Inspection, maintenance or repair combined with refuelling	327			629		
D. Inspection, maintenance or repair without refuelling				9		
H. Nuclear regulatory requirements					54	9
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					10	4
Z. Others					16	
Subtotal	327	0	0	638	191	13
Total	327			842		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		8
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		1
41. Main Generator Systems		83
Total	0	93

DE-13 BRUNSBUETTEL (KKB)

Operator: HEW (Hamburgische Elektrizitätswerke)
Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 771.0 MW(e)
Design Net Capacity: 770.0 MW(e)
Design Discharge Burnup: 32000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6027.2 GW(e).h
Energy Availability Factor: 89.0%
Load Factor: 89.2%
Operating Factor: 91.2%
Energy Unavailability Factor: 11.0%
Total Off-line Time: 771 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	580.3	519.5	574.3	552.3	554.5	479.9	24.2	491.9	543.9	570.1	558.2	578.1	6027.2
EAF (%)	99.9	99.4	99.4	99.4	96.7	86.4	4.2	87.0	98.0	99.5	99.9	99.6	89.0
UCF (%)	100.0	99.4	99.4	99.4	98.1	99.3	5.3	87.0	99.4	99.5	99.9	99.6	90.3
LF (%)	101.2	100.3	100.1	99.6	96.7	86.4	4.2	85.8	98.0	99.3	100.6	100.8	89.2
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	6.6	89.8	100.0	100.0	100.0	100.0	91.2
EUF (%)	0.1	0.6	0.6	0.6	3.3	13.6	95.8	13.0	2.0	0.5	0.1	0.4	11.0
PUF (%)	0.0	0.6	0.5	0.6	0.0	0.0	71.9	2.7	0.5	0.3	0.0	0.4	6.6
UCLF (%)	0.1	0.0	0.1	0.0	1.9	0.7	22.8	10.3	0.1	0.3	0.1	0.0	3.1
XUF (%)	0.0	0.0	0.0	0.0	1.4	12.8	1.1	0.0	1.4	0.0	0.0	0.0	1.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 15 Apr 1970
Date of First Criticality: 23 Jun 1976
Date of Grid Connection: 13 Jul 1976
Date of Commercial Operation: 09 Feb 1977

Lifetime Generation: 111915.9 GW(e).h
Cumulative Energy Availability Factor: 60.8%
Cumulative Load Factor: 56.6%
Cumulative Unit Capability Factor: 69.3%
Cumulative Energy Unavailability Factor: 39.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	2925.9	770.0	100.0	100.0	47.4	47.4	47.4	47.4	4043	50.4
1978	2333.5	770.0	100.0	100.0	34.5	40.7	34.6	40.7	3405	38.9
1979	0.0	770.0	100.0	100.0	0.0	26.7	0.0	26.7	0	0.0
1980	714.9	770.0	11.3	77.3	11.3	22.8	10.6	22.6	1354	15.4
1981	4462.4	770.0	66.4	75.1	66.4	31.6	66.2	31.5	7432	84.8
1982	3439.2	770.0	51.1	71.0	51.1	34.9	51.0	34.8	5007	57.2
1983	2416.0	770.0	34.2	65.7	34.2	34.8	35.8	34.9	3241	37.0
1984	5334.0	770.0	78.9	67.4	78.9	40.4	78.9	40.5	7549	85.9
1985	5625.3	770.0	83.1	69.1	83.1	45.2	83.4	45.3	7661	87.5
1986	5630.9	771.0	86.1	70.8	86.1	49.3	83.4	49.1	7802	89.1
1987	5233.8	771.0	85.9	72.2	85.9	52.7	77.5	51.7	7837	89.5
1988	5085.3	771.0	85.4	73.3	85.4	55.4	75.1	53.7	7800	88.8
1989	4097.2	771.0	71.6	73.2	71.6	56.7	60.7	54.2	6730	76.8
1990	4780.3	771.0	93.8	74.7	93.8	59.4	70.8	55.4	8527	97.3
1991	3819.3	771.0	80.8	75.1	61.2	59.5	56.5	55.5	6317	72.1
1992	3487.4	771.0	57.4	74.0	57.4	59.3	51.5	55.2	5425	61.8
1993	0.0	771.0	0.0	69.6	0.0	55.8	0.0	52.0	0	0.0
1994	0.0	771.0	0.0	65.7	0.0	52.7	0.0	49.1	0	0.0
1995	3001.0	771.0	51.4	65.0	51.4	52.7	44.4	48.8	4750	54.2
1996	4696.4	771.0	77.9	65.6	74.7	53.8	69.3	49.9	7255	82.6
1997	5102.9	771.0	97.4	67.1	97.4	55.8	75.6	51.1	8760	100.0
1998	3993.9	771.0	64.7	67.0	64.7	56.3	59.1	51.5	5712	65.2
1999	6219.8	771.0	93.6	68.2	93.6	57.9	92.1	53.2	8290	94.6
2000	5784.8	771.0	93.8	69.3	93.8	59.4	85.4	54.6	8295	94.4
2001	5764.3	771.0	93.1	70.2	86.8	60.5	85.3	55.8	8202	93.6
2002	860.0	771.0	13.1	68.0	13.1	58.7	12.7	54.2	1167	13.3
2003	4905.8	771.0	76.3	68.3	76.3	59.3	72.6	54.8	6688	76.3
2004	4873.2	771.0	73.3	68.5	73.3	59.8	72.0	55.5	6504	74.0
2005	6027.2	771.0	90.3	69.3	89.0	60.8	89.2	56.6	7989	91.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					1426	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	528	243		625		
D. Inspection, maintenance or repair without refuelling				460		
E. Testing of plant systems or components				0	2	
H. Nuclear regulatory requirements				0	24	28
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					3	
M. Governmental requirements or court decisions						6
Z. Others					67	
Subtotal	528	243	0	1085	1522	34
Total	771			2641		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		754
15. Reactor Cooling Systems		109
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		488
32. Feedwater and Main Steam System		0
35. All other I&C Systems		0
41. Main Generator Systems		6
42. Electrical Power Supply Systems		52
Total	0	1412

DE-33 EMSLAND (KKE)**Operator:** RWE (RWE ENERGIE AG)**Contractor:** SIEM, KWU (SIEMENS AG, KRAFTWERK UNION AG)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1329.0 MW(e)

Design Net Capacity: 1242.0 MW(e)

Design Discharge Burnup: 37000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10887.8 GW(e).h

Energy Availability Factor: 93.9%

Load Factor: 93.5%

Operating Factor: 94.0%

Energy Unavailability Factor: 6.1%

Total Off-line Time: 522 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	992.0	903.8	990.6	960.3	842.1	350.0	973.7	981.0	948.1	986.1	962.5	997.8	10887.8
EAF (%)	100.0	99.9	100.0	100.0	89.4	37.1	100.0	100.0	100.0	100.0	100.0	100.0	93.9
UCF (%)	100.0	100.0	100.0	100.0	89.4	37.1	100.0	100.0	100.0	100.0	100.0	100.0	93.9
LF (%)	100.3	101.2	100.2	100.4	85.2	36.6	98.5	99.2	99.1	99.6	100.6	100.9	93.5
OF (%)	100.0	100.0	99.9	100.0	89.7	38.3	100.0	100.0	100.0	100.0	100.0	100.0	94.0
EUF (%)	0.0	0.1	0.0	0.0	10.6	62.9	0.0	0.0	0.0	0.0	0.0	0.0	6.1
PUF (%)	0.0	0.1	0.0	0.0	10.6	62.9	0.0	0.0	0.0	0.0	0.0	0.0	6.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 10 Aug 1982 **Lifetime Generation:** 187681.6 GW(e).h

Date of First Criticality: 14 Apr 1988 **Cumulative Energy Availability Factor:** 93.2%

Date of Grid Connection: 19 Apr 1988 **Cumulative Load Factor:** 93.0%

Date of Commercial Operation: 20 Jun 1988 **Cumulative Unit Capability Factor:** 93.2%

Cumulative Energy Unavailability Factor: 6.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	5694.9	1242.0	96.8	96.8	96.8	96.8	89.3	89.3	4516	87.9
1989	9857.2	1242.0	88.7	91.7	88.7	91.7	90.6	90.1	7794	89.0
1990	10039.2	1270.0	90.4	91.2	90.4	91.2	91.2	90.5	7956	90.8
1991	9287.3	1242.0	82.0	88.6	82.0	88.6	85.4	89.1	7304	83.4
1992	10158.0	1290.0	90.2	89.0	90.2	89.0	89.6	89.2	7933	90.3
1993	10477.1	1290.0	92.9	89.7	92.9	89.7	92.7	89.9	8147	93.0
1994	10526.7	1290.0	93.4	90.3	93.4	90.3	93.2	90.4	8193	93.5
1995	10495.7	1290.0	93.1	90.6	93.1	90.6	92.9	90.7	8168	93.2
1996	10557.3	1290.0	93.2	90.9	93.2	90.9	93.2	91.0	8195	93.3
1997	10650.2	1290.0	94.6	91.3	94.6	91.3	94.2	91.3	8298	94.7
1998	10794.7	1290.0	95.7	91.7	95.7	91.7	95.5	91.7	8388	95.8
1999	10729.2	1290.0	96.0	92.1	96.0	92.1	94.9	92.0	8413	96.0
2000	10802.0	1329.0	94.9	92.3	94.9	92.3	94.1	92.2	8339	94.9
2001	10933.2	1329.0	94.1	92.5	93.8	92.4	93.9	92.3	8257	94.3
2002	11242.3	1329.0	96.9	92.8	96.9	92.8	96.6	92.6	8497	97.0
2003	11097.0	1329.0	95.8	93.0	95.8	93.0	95.3	92.8	8401	95.9
2004	11147.2	1329.0	96.1	93.2	96.1	93.2	95.5	93.0	8456	96.3
2005	10887.8	1329.0	93.9	93.2	93.9	93.2	93.5	93.0	8239	94.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					31	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	521			460		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
Z. Others					2	
Subtotal	521	0	0	460	33	0
Total		521			493	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems		18
31. Turbine and auxiliaries		3
41. Main Generator Systems		8
42. Electrical Power Supply Systems		1
Total	0	30

DE-23 GRAFENRHEINFELD (KKG)

Operator: EON (EON Kernkraft Ges.m.b.H)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1275.0 MW(e)
 Design Net Capacity: 1225.0 MW(e)
 Design Discharge Burnup: 45000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10106.0 GW(e).h
 Energy Availability Factor: 91.5%
 Load Factor: 90.5%
 Operating Factor: 91.8%
 Energy Unavailability Factor: 8.5%
 Total Off-line Time: 714 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	948.3	864.4	952.1	643.2	258.1	899.9	927.0	919.6	901.0	927.6	912.7	952.0	10106.0
EAF (%)	100.0	100.0	99.9	69.9	29.1	100.0	99.9	99.8	100.0	100.0	100.0	100.0	91.5
UCF (%)	100.0	100.0	100.0	73.2	29.1	100.0	99.9	99.8	100.0	100.0	100.0	100.0	91.8
LF (%)	100.0	100.9	100.4	70.2	27.2	98.0	97.7	96.9	98.2	97.7	99.4	100.4	90.5
OF (%)	100.0	100.0	99.9	73.9	29.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.8
EUF (%)	0.0	0.0	0.1	30.1	70.9	0.0	0.1	0.2	0.0	0.0	0.0	0.0	8.5
PUF (%)	0.0	0.0	0.0	26.8	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
UCLF (%)	0.0	0.0	0.0	0.0	51.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	4.4
XUF (%)	0.0	0.0	0.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1975
 Date of First Criticality: 09 Dec 1981
 Date of Grid Connection: 21 Dec 1981
 Date of Commercial Operation: 17 Jun 1982

Lifetime Generation: 238397.7 GW(e).h
 Cumulative Energy Availability Factor: 88.0%
 Cumulative Load Factor: 86.2%
 Cumulative Unit Capability Factor: 88.0%
 Cumulative Energy Unavailability Factor: 12.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	6199.2	1229.0	98.3	98.3	98.3	98.3	98.2	98.2	5122	99.7
1983	9412.0	1229.0	87.5	91.5	87.5	91.5	87.4	91.4	7898	90.2
1984	9590.0	1229.0	88.7	90.4	88.7	90.4	88.8	90.4	7890	89.8
1985	9741.6	1235.0	90.6	90.5	90.6	90.4	90.0	90.3	8155	93.1
1986	8718.2	1235.0	80.9	88.4	80.9	88.3	80.6	88.2	7179	82.0
1987	8360.6	1235.0	77.8	86.5	77.8	86.5	77.3	86.2	7509	85.7
1988	8799.9	1235.0	84.3	86.1	84.3	86.1	81.1	85.5	7604	86.6
1989	9401.7	1235.0	88.0	86.4	88.0	86.4	86.9	85.6	7840	89.5
1990	7910.3	1235.0	73.5	84.9	73.5	84.9	73.1	84.2	6743	77.0
1991	9753.5	1235.0	92.5	85.7	92.5	85.7	90.2	84.8	8114	92.6
1992	9657.2	1235.0	91.8	86.3	91.8	86.3	89.0	85.2	8074	91.9
1993	8845.9	1235.0	84.5	86.1	84.5	86.1	81.8	84.9	7524	85.9
1994	9674.5	1275.0	88.8	86.3	88.8	86.3	86.6	85.0	8116	92.6
1995	9946.0	1275.0	93.5	86.9	93.5	86.9	89.1	85.4	8193	93.5
1996	9528.6	1275.0	89.1	87.0	89.1	87.0	85.1	85.3	7886	89.8
1997	10131.0	1275.0	93.5	87.5	93.5	87.4	90.7	85.7	8202	93.6
1998	9147.0	1275.0	84.6	87.3	84.6	87.3	81.9	85.5	7429	84.8
1999	8336.7	1275.0	76.1	86.6	76.1	86.6	74.6	84.8	6737	76.9
2000	9600.9	1275.0	89.1	86.8	89.1	86.8	85.7	84.9	7829	89.1
2001	10573.9	1275.0	95.7	87.2	95.7	87.2	94.7	85.4	8392	95.8
2002	9889.9	1275.0	91.0	87.4	91.0	87.4	88.5	85.5	7977	91.1
2003	10270.2	1275.0	93.4	87.7	93.4	87.7	92.0	85.8	8196	93.6
2004	10129.4	1275.0	91.6	87.9	91.6	87.9	90.4	86.0	8059	91.7
2005	10106.0	1275.0	91.8	88.0	91.5	88.0	90.5	86.2	8046	91.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		378			149	
C. Inspection, maintenance or repair combined with refuelling	335			769		
Z. Others					6	
Subtotal	335	378	0	769	155	0
Total		713			924	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
14. Safety Systems		0
15. Reactor Cooling Systems		40
16. Steam generation systems		26
31. Turbine and auxiliaries		31
32. Feedwater and Main Steam System		11
41. Main Generator Systems	378	39
Total	378	147

DE-27 GROHNDE (KWG)**Operator:** EON (EON Kernkraft Ges.m.b.H)**Contractor:** KWU (SIEMENS KRAFTWERK UNION AG)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1360.0 MW(e)

Design Net Capacity: 1289.0 MW(e)

Design Discharge Burnup: 40000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10840.9 GW(e).h

Energy Availability Factor: 94.5%

Load Factor: 91.0%

Operating Factor: 95.5%

Energy Unavailability Factor: 5.5%

Total Off-line Time: 396 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	939.8	902.0	974.1	933.6	445.7	931.5	909.9	944.1	923.2	979.1	952.4	1005.5	10840.9
EAF (%)	99.9	99.9	99.9	96.7	44.2	99.9	95.9	98.7	100.0	100.0	100.0	100.0	94.5
UCF (%)	99.9	99.9	99.9	100.0	48.7	99.9	95.9	98.7	100.0	100.0	100.0	100.0	95.1
LF (%)	92.9	98.7	96.3	95.5	44.1	95.1	89.9	93.3	94.3	96.6	97.3	99.4	91.0
OF (%)	100.0	100.0	99.9	100.1	50.1	100.0	96.6	100.0	100.0	100.0	100.0	100.0	95.5
EUF (%)	0.1	0.1	0.1	3.3	55.8	0.1	4.1	1.3	0.0	0.0	0.0	0.0	5.5
PUF (%)	0.0	0.0	0.0	0.0	45.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0	3.9
UCLF (%)	0.1	0.1	0.0	0.0	6.0	0.0	4.1	1.3	0.0	0.0	0.0	0.0	1.0
XUF (%)	0.0	0.0	0.0	3.3	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Jun 1976 **Lifetime Generation:** 224653.2 GW(e).h

Date of First Criticality: 01 Sep 1984 **Cumulative Energy Availability Factor:** 92.2%

Date of Grid Connection: 04 Sep 1984 **Cumulative Load Factor:** 90.8%

Date of Commercial Operation: 01 Feb 1985 **Cumulative Unit Capability Factor:** 92.3%

Cumulative Energy Unavailability Factor: 7.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	9896.4	1300.0	95.2	95.2	95.2	95.2	95.0	95.0	7662	95.6
1986	10205.4	1300.0	89.7	92.3	89.7	92.3	89.6	92.2	8120	92.7
1987	9648.5	1300.0	86.4	90.3	86.4	90.3	84.7	89.6	7979	91.1
1988	10208.3	1300.0	90.8	90.4	90.8	90.4	89.4	89.6	8104	92.3
1989	10279.4	1300.0	90.3	90.4	90.3	90.4	90.3	89.7	8058	92.0
1990	10123.6	1325.0	88.1	90.0	88.1	90.0	87.9	89.4	7872	89.9
1991	9957.8	1325.0	86.4	89.5	86.4	89.5	85.8	88.9	7603	86.8
1992	10424.3	1325.0	90.0	89.6	90.0	89.6	89.6	89.0	7981	90.9
1993	10680.1	1325.0	92.8	89.9	92.8	89.9	92.0	89.3	8147	93.0
1994	10266.5	1325.0	91.9	90.1	91.9	90.1	88.5	89.2	8063	92.0
1995	10771.2	1360.0	91.1	90.2	91.1	90.2	91.1	89.4	7986	91.2
1996	10589.8	1360.0	88.9	90.1	88.9	90.1	88.6	89.3	7861	89.5
1997	11864.7	1360.0	100.0	90.9	100.0	90.9	99.6	90.1	8760	100.0
1998	11146.3	1360.0	94.5	91.2	94.5	91.2	93.6	90.4	8301	94.8
1999	11212.1	1360.0	95.3	91.4	95.3	91.4	94.1	90.7	8351	95.3
2000	11055.9	1360.0	93.7	91.6	93.7	91.6	92.5	90.8	8250	93.9
2001	10926.6	1360.0	94.7	91.8	94.2	91.7	91.7	90.8	8310	94.9
2002	10791.9	1360.0	93.8	91.9	93.8	91.9	90.6	90.8	8233	94.0
2003	10933.0	1360.0	95.0	92.1	95.0	92.0	91.8	90.9	8343	95.2
2004	10695.4	1360.0	93.6	92.1	93.6	92.1	89.5	90.8	8245	93.9
2005	10840.9	1360.0	95.1	92.3	94.5	92.2	91.0	90.8	8364	95.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		38			49	
C. Inspection, maintenance or repair combined with refuelling	332	39		486		
D. Inspection, maintenance or repair without refuelling				2		
Z. Others					13	
Subtotal	332	77	0	488	62	0
Total	409			550		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		4
15. Reactor Cooling Systems		4
31. Turbine and auxiliaries	13	
32. Feedwater and Main Steam System		1
35. All other I&C Systems	25	
41. Main Generator Systems		33
42. Electrical Power Supply Systems		5
Total	38	47

DE-26 GUNDREMMINGEN-B (GUN-B)

Operator: RWE (RWE ENERGIE AG)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1284.0 MW(e)

Design Net Capacity: 1244.0 MW(e)

Design Discharge Burnup: 45000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10299.9 GW(e).h

Energy Availability Factor: 91.5%

Load Factor: 91.6%

Operating Factor: 93.0%

Energy Unavailability Factor: 8.5%

Total Off-line Time: 615 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	966.4	868.9	917.5	650.1	546.2	920.0	949.3	953.8	906.8	959.2	768.1	893.5	10299.9
EAF (%)	100.0	99.6	96.5	71.1	57.4	100.0	100.0	100.0	98.3	100.0	82.7	92.4	91.5
UCF (%)	100.0	99.6	99.5	78.3	57.4	100.0	100.0	100.0	98.3	100.0	82.7	92.5	92.3
LF (%)	101.2	100.7	96.0	70.4	57.2	99.5	99.4	99.8	98.1	100.3	83.1	93.5	91.6
OF (%)	100.0	100.0	99.9	79.0	59.5	100.0	100.0	100.0	100.0	100.0	82.8	94.9	93.0
EUF (%)	0.0	0.4	3.5	28.9	42.6	0.0	0.0	0.0	1.7	0.0	17.3	7.6	8.5
PUF (%)	0.0	0.4	0.0	21.7	35.5	0.0	0.0	0.0	1.7	0.0	17.3	7.6	7.0
UCLF (%)	0.0	0.0	0.5	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	3.1	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 20 Jul 1976

Date of First Criticality: 09 Mar 1984

Date of Grid Connection: 16 Mar 1984

Date of Commercial Operation: 19 Jul 1984

Lifetime Generation: 196007.8 GW(e).h

Cumulative Energy Availability Factor: 88.1%

Cumulative Load Factor: 81.7%

Cumulative Unit Capability Factor: 88.2%

Cumulative Energy Unavailability Factor: 11.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	4656.0	1244.0	85.3	85.3	85.3	85.3	84.7	84.7	3958	89.6
1985	9147.5	1244.0	85.5	85.4	85.5	85.4	83.9	84.2	7852	89.6
1986	8298.3	1244.0	83.1	84.5	83.1	84.5	76.1	81.0	7434	84.9
1987	8413.2	1240.0	84.4	84.5	84.4	84.5	77.5	80.0	7876	89.9
1988	7079.3	1240.0	83.6	84.3	83.6	84.3	65.0	76.7	7706	87.7
1989	9653.7	1240.0	97.9	86.8	97.9	86.8	88.9	78.9	8743	99.8
1990	8442.3	1240.0	83.6	86.3	83.6	86.3	77.7	78.7	7717	88.1
1991	8002.7	1240.0	77.7	85.1	74.8	84.7	73.7	78.0	7520	85.8
1992	7366.8	1240.0	78.4	84.3	78.4	84.0	67.6	76.8	7073	80.5
1993	8015.8	1240.0	84.9	84.4	84.9	84.1	73.8	76.5	7632	87.1
1994	8825.6	1240.0	92.1	85.1	91.7	84.8	81.2	76.9	8213	93.8
1995	8681.7	1284.0	84.7	85.1	84.7	84.8	77.2	77.0	7535	86.0
1996	9370.9	1284.0	88.6	85.4	88.6	85.1	83.1	77.5	7903	90.0
1997	9206.1	1284.0	92.8	85.9	92.8	85.7	81.8	77.8	8264	94.3
1998	9072.1	1284.0	89.2	86.2	89.2	85.9	80.7	78.0	7996	91.3
1999	9595.4	1284.0	93.3	86.6	93.3	86.4	85.3	78.5	8257	94.3
2000	9336.4	1284.0	88.8	86.8	88.8	86.6	82.8	78.7	7887	89.8
2001	10216.7	1284.0	94.8	87.2	94.8	87.1	90.8	79.5	8405	95.9
2002	9976.9	1284.0	92.1	87.5	92.1	87.3	88.7	80.0	8139	92.9
2003	10480.4	1284.0	94.4	87.9	94.4	87.7	93.2	80.7	8325	95.0
2004	10283.1	1284.0	91.3	88.0	91.3	87.9	91.2	81.2	8208	93.4
2005	10299.9	1284.0	92.3	88.2	91.5	88.1	91.6	81.7	8145	93.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		41			15	
B. Refuelling without a maintenance	162				0	
C. Inspection, maintenance or repair combined with refuelling	416			716		
D. Inspection, maintenance or repair without refuelling				14		
E. Testing of plant systems or components				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	
Subtotal	578	41	0	730	20	0
Total	619			750		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
14. Safety Systems		0
15. Reactor Cooling Systems	41	0
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		10
Total	41	14

DE-28 GUNDREMMINGEN-C (GUN-C)

Operator: EON (EON Kernkraft Ges.m.b.H)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1288.0 MW(e)

Design Net Capacity: 1249.0 MW(e)

Design Discharge Burnup: 45000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10015.6 GW(e).h

Energy Availability Factor: 89.2%

Load Factor: 88.8%

Operating Factor: 93.1%

Energy Unavailability Factor: 10.8%

Total Off-line Time: 602 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	951.4	866.7	948.9	908.5	956.3	913.6	932.8	873.5	768.1	529.0	393.6	973.4	10015.6
EAF (%)	99.5	100.0	99.9	98.1	100.0	100.0	98.5	92.2	84.2	56.2	42.0	100.0	89.2
UCF (%)	99.5	100.0	99.9	98.1	100.0	100.0	100.0	99.1	100.0	71.9	42.0	100.0	92.6
LF (%)	99.3	100.1	99.0	98.1	99.8	98.5	97.3	91.2	82.8	55.1	42.4	101.6	88.8
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	73.0	44.4	100.0	93.1
EUF (%)	0.5	0.0	0.1	1.9	0.0	0.0	1.5	7.8	15.8	43.8	58.0	0.0	10.8
PUF (%)	0.5	0.0	0.0	1.9	0.0	0.0	0.0	0.9	0.0	27.8	58.0	0.0	7.4
UCLF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.5	6.9	15.8	15.7	0.0	0.0	3.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 20 Jul 1976

Date of First Criticality: 26 Oct 1984

Date of Grid Connection: 02 Nov 1984

Date of Commercial Operation: 18 Jan 1985

Lifetime Generation: 186454.8 GW(e).h

Cumulative Energy Availability Factor: 86.2%

Cumulative Load Factor: 79.0%

Cumulative Unit Capability Factor: 86.5%

Cumulative Energy Unavailability Factor: 13.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	9149.6	1244.0	85.5	85.5	85.5	85.5	84.0	84.0	7663	87.5
1986	8018.5	1244.0	84.7	85.1	84.7	85.1	73.6	78.8	7945	90.7
1987	7333.2	1248.0	74.7	81.6	74.7	81.6	67.1	74.9	7345	83.8
1988	7456.1	1248.0	88.3	83.3	88.3	83.3	68.0	73.1	7887	89.8
1989	7884.5	1248.0	84.2	83.5	84.2	83.5	72.1	72.9	7722	88.2
1990	8264.8	1248.0	80.2	82.9	80.2	82.9	75.6	73.4	7519	85.8
1991	8341.3	1248.0	85.9	83.3	85.9	83.3	76.3	73.8	7709	88.0
1992	9381.0	1248.0	98.9	85.3	98.9	85.3	85.6	75.3	8784	100.0
1993	6689.2	1248.0	79.1	84.6	79.1	84.6	61.2	73.7	7051	80.5
1994	7502.0	1248.0	81.1	84.3	80.7	84.2	68.6	73.2	7147	81.6
1995	9376.7	1288.0	89.3	84.7	89.3	84.7	83.1	74.1	7929	90.5
1996	9509.0	1288.0	91.7	85.3	91.7	85.3	84.0	75.0	8176	93.1
1997	9013.6	1288.0	89.1	85.6	88.7	85.6	79.9	75.4	7861	89.7
1998	9629.5	1288.0	91.5	86.1	91.5	86.0	85.3	76.1	8153	93.1
1999	8187.6	1288.0	77.0	85.4	77.0	85.4	72.6	75.9	6942	79.2
2000	10176.8	1288.0	94.6	86.0	94.6	86.0	90.0	76.8	8375	95.3
2001	9838.4	1288.0	90.7	86.3	87.2	86.0	87.2	77.4	8016	91.5
2002	10335.8	1288.0	93.4	86.7	93.4	86.5	91.6	78.2	8301	94.8
2003	9965.6	1288.0	89.2	86.8	89.2	86.6	88.3	78.7	7931	90.5
2004	8470.5	1288.0	74.9	86.2	74.9	86.0	74.9	78.5	6747	76.8
2005	10015.6	1288.0	92.6	86.5	89.2	86.2	88.8	79.0	8158	93.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					195	
B. Refuelling without a maintenance				18	0	
C. Inspection, maintenance or repair combined with refuelling	601			713		
D. Inspection, maintenance or repair without refuelling	1			20		
E. Testing of plant systems or components					2	
Subtotal	602	0	0	751	197	0
Total	602			948		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
14. Safety Systems		17
15. Reactor Cooling Systems		10
31. Turbine and auxiliaries		38
32. Feedwater and Main Steam System		0
41. Main Generator Systems		129
Total	0	194

DE-16 ISAR-1 (KKI 1)

Operator: EON (EON Kernkraft Ges.m.b.H)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 878.0 MW(e)
 Design Net Capacity: 870.0 MW(e)
 Design Discharge Burnup: 45000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7336.9 GW(e).h
 Energy Availability Factor: 95.2%
 Load Factor: 95.4%
 Operating Factor: 97.5%
 Energy Unavailability Factor: 4.8%
 Total Off-line Time: 215 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	656.2	381.7	654.0	626.1	641.3	584.8	627.7	636.6	608.2	655.5	630.6	634.3	7336.9
EAF (%)	99.9	63.9	99.6	98.6	99.5	92.7	96.1	97.5	96.1	100.0	99.3	96.7	95.2
UCF (%)	99.9	63.9	99.6	98.6	99.6	100.0	97.5	98.2	96.6	100.0	99.3	96.7	96.1
LF (%)	100.5	64.7	100.1	99.0	98.2	92.5	96.1	97.4	96.2	100.2	99.8	97.1	95.4
OF (%)	100.0	68.8	99.9	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.5
EUF (%)	0.1	36.1	0.4	1.4	0.5	7.3	3.9	2.5	3.9	0.0	0.7	3.3	4.8
PUF (%)	0.0	36.1	0.0	0.3	0.4	0.0	0.0	0.0	2.8	0.0	0.0	0.0	3.1
UCLF (%)	0.1	0.0	0.5	1.1	0.0	0.0	2.5	1.8	0.6	0.0	0.7	3.3	0.9
XUF (%)	0.0	0.0	0.0	0.0	0.1	7.3	1.4	0.7	0.5	0.0	0.0	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1972 Lifetime Generation: 162076.9 GW(e).h
 Date of First Criticality: 20 Nov 1977 Cumulative Energy Availability Factor: 81.6%
 Date of Grid Connection: 03 Dec 1977 Cumulative Load Factor: 77.6%
 Date of Commercial Operation: 21 Mar 1979 Cumulative Unit Capability Factor: 84.5%
 Cumulative Energy Unavailability Factor: 18.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	4503.0	870.0	100.0	100.0	70.5	70.5	70.5	70.5	5969	81.3
1980	4202.0	870.0	55.2	75.6	55.2	62.1	55.0	62.0	5791	65.9
1981	4155.9	870.0	100.0	84.2	53.7	59.2	54.5	59.4	5880	67.1
1982	1603.3	870.0	21.1	67.8	21.1	49.3	21.0	49.4	2232	25.5
1983	7143.0	870.0	93.9	73.2	93.9	58.5	93.7	58.6	8627	98.5
1984	5587.0	870.0	73.2	73.2	73.2	61.0	73.1	61.1	7262	82.7
1985	6515.6	870.0	86.0	75.0	86.0	64.7	85.5	64.6	8006	91.4
1986	6370.4	870.0	83.4	76.1	83.4	67.0	83.6	67.0	7871	89.9
1987	7164.7	870.0	93.6	78.1	93.6	70.1	94.0	70.1	8335	95.1
1988	5639.1	870.0	82.3	78.5	82.3	71.3	73.8	70.5	7674	87.4
1989	5205.3	870.0	74.4	78.1	74.4	71.6	68.3	70.3	7233	82.6
1990	5054.8	870.0	74.2	77.8	74.2	71.8	66.3	69.9	7577	86.5
1991	6760.6	870.0	94.9	79.1	94.9	73.6	88.7	71.4	8381	95.7
1992	5872.0	870.0	89.4	79.9	89.4	74.7	76.8	71.8	7903	90.0
1993	5575.2	870.0	85.5	80.3	85.5	75.5	73.2	71.9	7553	86.2
1994	5150.3	870.0	73.5	79.8	73.5	75.3	67.6	71.6	6462	73.8
1995	6446.0	870.0	94.7	80.7	94.7	76.5	84.6	72.4	8306	94.8
1996	5816.3	870.0	86.2	81.0	86.2	77.0	76.1	72.6	7674	87.4
1997	5998.4	870.0	91.5	81.6	91.5	77.8	78.7	72.9	8059	92.0
1998	6335.8	870.0	89.3	82.0	89.2	78.4	83.1	73.4	7857	89.7
1999	7532.1	870.0	98.7	82.8	98.7	79.3	98.8	74.6	8736	99.7
2000	6646.0	878.0	90.8	83.1	90.8	79.9	86.5	75.2	8231	93.7
2001	5889.0	878.0	82.4	83.1	76.2	79.7	76.6	75.3	7353	83.9
2002	7566.2	878.0	98.6	83.8	98.6	80.5	98.4	76.2	8731	99.7
2003	6301.4	878.0	87.4	83.9	87.4	80.8	81.9	76.5	7773	88.7
2004	6771.1	878.0	89.1	84.1	89.1	81.1	87.8	76.9	7984	90.9
2005	7336.9	878.0	96.1	84.5	95.2	81.6	95.4	77.6	8546	97.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					152	
B. Refuelling without a maintenance	210					
C. Inspection, maintenance or repair combined with refuelling				890		
D. Inspection, maintenance or repair without refuelling				93		
E. Testing of plant systems or components				103		
H. Nuclear regulatory requirements					25	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				9	0	0
Z. Others					11	
Subtotal	210	0	0	1095	188	0
Total	210			1283		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
15. Reactor Cooling Systems		29
21. Fuel Handling and Storage Facilities		7
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		4
41. Main Generator Systems		19
42. Electrical Power Supply Systems		31
Total	0	130

DE-31 ISAR-2 (KKI 2)**Operator:** EON (EON Kernkraft Ges.m.b.H)**Contractor:** KWU (SIEMENS KRAFTWERK UNION AG)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1400.0 MW(e)

Design Net Capacity: 1285.0 MW(e)

Design Discharge Burnup: 60000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 11102.6 GW(e).h

Energy Availability Factor: 90.5%

Load Factor: 90.5%

Operating Factor: 91.1%

Energy Unavailability Factor: 9.5%

Total Off-line Time: 784 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1055.8	958.3	1050.8	1010.1	1021.7	976.5	242.4	689.3	991.6	1034.4	1021.6	1050.0	11102.6
EAF (%)	100.0	100.0	100.0	100.0	100.0	97.6	23.3	67.5	100.0	100.0	100.0	100.0	90.5
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	25.1	67.5	100.0	100.0	100.0	100.0	90.9
LF (%)	101.4	101.9	100.9	100.3	98.1	96.9	23.3	66.2	98.4	99.2	101.3	100.8	90.5
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	25.8	68.8	100.0	100.0	100.0	100.0	91.1
EUF (%)	0.0	0.0	0.0	0.0	0.0	2.4	76.7	32.5	0.0	0.0	0.0	0.0	9.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	74.9	2.2	0.0	0.0	0.0	0.0	6.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3	0.0	0.0	0.0	0.0	2.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	2.4	1.9	0.0	0.0	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 15 Sep 1982 **Lifetime Generation:** 187481.2 GW(e).h

Date of First Criticality: 15 Jan 1988 **Cumulative Energy Availability Factor:** 91.4%

Date of Grid Connection: 22 Jan 1988 **Cumulative Load Factor:** 88.0%

Date of Commercial Operation: 09 Apr 1988 **Cumulative Unit Capability Factor:** 91.7%

Cumulative Energy Unavailability Factor: 8.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	6023.0	1310.0	95.1	95.1	95.1	95.1	69.7	69.7	6177	93.6
1989	7728.9	1310.0	73.4	82.7	73.4	82.7	67.4	68.3	6876	78.5
1990	9271.4	1310.0	84.9	83.5	84.9	83.5	80.8	72.9	7915	90.4
1991	9699.2	1320.0	87.8	84.7	87.8	84.7	84.0	75.8	7732	88.3
1992	9843.5	1320.0	89.9	85.8	89.9	85.8	84.9	77.8	7917	90.1
1993	10193.0	1330.0	91.3	86.7	88.1	86.2	87.5	79.5	8052	91.9
1994	10499.9	1330.0	93.1	87.7	93.1	87.2	90.1	81.1	8209	93.7
1995	10040.3	1340.0	89.8	88.0	89.8	87.6	86.0	81.7	7891	90.1
1996	10265.1	1365.0	90.7	88.3	88.5	87.7	87.3	82.3	7989	90.9
1997	10906.4	1365.0	94.1	88.9	94.1	88.4	91.2	83.3	8258	94.3
1998	10758.1	1365.0	93.6	89.4	93.6	88.9	90.0	83.9	8356	95.4
1999	11610.9	1380.0	96.5	90.0	96.5	89.5	96.0	85.0	8465	96.6
2000	11291.1	1400.0	94.5	90.4	94.5	89.9	91.8	85.5	8311	94.6
2001	11731.3	1400.0	97.1	90.9	97.1	90.5	95.7	86.3	8506	97.1
2002	11512.2	1400.0	95.1	91.2	95.1	90.8	93.9	86.8	8350	95.3
2003	11671.6	1400.0	96.7	91.5	95.9	91.1	95.2	87.4	8491	96.9
2004	11595.3	1400.0	95.4	91.8	95.4	91.4	94.3	87.8	8395	95.6
2005	11102.6	1400.0	90.9	91.7	90.5	91.4	90.5	88.0	7976	91.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					74	
B. Refuelling without a maintenance				19		
C. Inspection, maintenance or repair combined with refuelling	568	216		498		
E. Testing of plant systems or components				0	1	
Z. Others					2	
Subtotal	568	216	0	517	77	0
Total	784			594		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems		17
31. Turbine and auxiliaries		5
32. Feedwater and Main Steam System		0
41. Main Generator Systems		50
Total	0	72

DE-20 KRUEMMEL (KKK)

Operator: HEW (Hamburgische Elektrizitätswerke)
Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1260.0 MW(e)
Design Net Capacity: 1260.0 MW(e)
Design Discharge Burnup: 32000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9243.4 GW(e).h
Energy Availability Factor: 82.4%
Load Factor: 83.7%
Operating Factor: 83.7%
Energy Unavailability Factor: 17.6%
Total Off-line Time: 1432 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	947.3	857.6	925.9	912.5	931.9	889.7	901.1	127.3	0.0	830.4	924.5	995.2	9243.4
EAF (%)	99.9	99.7	97.5	100.0	99.9	99.5	97.8	13.6	0.0	84.7	96.9	99.9	82.4
UCF (%)	100.0	99.7	97.5	100.0	99.9	99.5	99.9	16.2	0.0	84.7	96.9	99.9	82.8
LF (%)	101.1	101.3	98.8	100.7	99.4	98.1	96.1	13.6	0.0	88.5	101.9	106.2	83.7
OF (%)	100.0	100.0	98.9	100.1	100.0	100.0	100.0	16.1	0.0	89.1	100.0	100.0	83.7
EUF (%)	0.1	0.3	2.5	0.0	0.1	0.5	2.2	86.4	100.0	15.3	3.1	0.1	17.6
PUF (%)	0.0	0.1	0.0	0.0	0.0	0.0	0.1	83.8	51.7	0.0	0.0	0.1	11.4
UCLF (%)	0.1	0.3	2.5	0.0	0.1	0.5	0.0	0.0	48.3	15.3	3.1	0.0	5.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.6	0.0	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 05 Apr 1974
Date of First Criticality: 14 Sep 1983
Date of Grid Connection: 28 Sep 1983
Date of Commercial Operation: 28 Mar 1984

Lifetime Generation: 185744.5 GW(e).h
Cumulative Energy Availability Factor: 79.8%
Cumulative Load Factor: 76.2%
Cumulative Unit Capability Factor: 80.1%
Cumulative Energy Unavailability Factor: 20.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	8569.0	1260.0	92.0	92.0	92.0	92.0	92.6	92.6	6984	95.1
1985	9301.9	1260.0	86.2	88.8	84.5	87.9	84.3	88.1	7551	86.2
1986	9488.3	1260.0	87.0	88.2	87.0	87.6	86.0	87.3	7780	88.8
1987	9180.2	1260.0	87.9	88.1	87.9	87.7	83.2	86.2	7822	89.3
1988	9219.2	1260.0	90.1	88.5	90.1	88.2	83.3	85.6	8018	91.3
1989	8241.6	1260.0	78.5	86.8	78.5	86.5	74.7	83.8	7247	82.7
1990	8830.2	1260.0	84.5	86.5	84.5	86.2	80.0	83.2	7507	85.7
1991	7737.6	1260.0	80.0	85.6	80.0	85.4	70.1	81.5	6946	79.3
1992	8325.0	1260.0	83.2	85.4	83.2	85.2	75.2	80.8	7188	81.8
1993	6558.5	1260.0	61.3	82.9	61.3	82.8	59.4	78.6	5399	61.6
1994	2479.8	1260.0	25.1	77.6	25.1	77.4	22.5	73.5	2091	23.9
1995	9217.9	1260.0	88.2	78.5	88.2	78.3	83.5	74.3	7824	89.3
1996	8242.3	1260.0	83.9	78.9	83.9	78.8	74.5	74.3	6868	78.2
1997	9250.6	1260.0	87.3	79.5	85.1	79.2	83.8	75.0	7492	85.5
1998	4611.1	1260.0	46.1	77.3	44.0	76.9	41.8	72.8	3878	44.3
1999	10517.1	1260.0	99.4	78.7	99.4	78.3	95.3	74.2	8760	100.0
2000	9022.9	1260.0	90.2	79.3	90.2	79.0	81.5	74.6	7975	90.8
2001	8141.9	1260.0	76.7	79.2	76.2	78.8	73.8	74.6	6591	75.2
2002	8483.9	1260.0	78.0	79.1	78.0	78.8	76.9	74.7	7069	80.7
2003	9488.5	1260.0	88.2	79.6	88.2	79.3	86.0	75.3	7809	89.1
2004	9626.7	1260.0	87.7	80.0	87.7	79.7	87.0	75.8	7825	89.1
2005	9243.4	1260.0	82.8	80.1	82.4	79.8	83.7	76.2	7328	83.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					511	
C. Inspection, maintenance or repair combined with refuelling	996	429		990		
D. Inspection, maintenance or repair without refuelling				24		
E. Testing of plant systems or components				9	1	
H. Nuclear regulatory requirements					8	17
J. Grid failure or grid unavailability						8
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
L. Human factor related		7				
Z. Others					19	
Subtotal	996	436	0	1023	539	25
Total		1432			1587	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		0
14. Safety Systems		1
15. Reactor Cooling Systems		2
21. Fuel Handling and Storage Facilities		24
31. Turbine and auxiliaries		0
32. Feedwater and Main Steam System		457
41. Main Generator Systems		19
XX. Miscellaneous Systems		4
Total	0	507

DE-15 NECKARWESTHEIM-1 (GKN 1)

Operator: EnBW (EnBW Kraftwerk AG)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 785.0 MW(e)
Design Net Capacity: 805.0 MW(e)
Design Discharge Burnup: 36700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5882.7 GW(e).h
Energy Availability Factor: 86.9%
Load Factor: 85.5%
Operating Factor: 92.1%
Energy Unavailability Factor: 13.1%
Total Off-line Time: 691 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	477.9	310.2	586.9	573.3	568.9	288.3	313.5	556.7	544.8	539.9	545.8	576.6	5882.7
EAF (%)	81.9	58.5	100.0	100.0	97.9	56.0	52.2	97.9	100.0	95.9	99.9	99.8	86.9
UCF (%)	81.9	58.5	100.0	100.0	97.9	56.1	52.2	98.0	100.0	95.9	99.9	99.8	86.9
LF (%)	81.8	58.8	100.5	101.6	97.4	51.0	53.7	95.3	96.4	92.3	96.6	98.7	85.5
OF (%)	100.0	85.9	99.9	100.1	100.0	57.5	64.8	100.0	100.0	96.2	100.0	100.0	92.1
EUF (%)	18.1	41.5	0.0	0.0	2.1	44.0	47.8	2.1	0.0	4.1	0.1	0.2	13.1
PUF (%)	0.0	14.6	0.0	0.0	0.0	42.9	37.1	0.0	0.0	0.0	0.0	0.2	7.8
UCLF (%)	18.1	26.9	0.0	0.0	2.1	1.0	10.8	2.1	0.0	4.1	0.1	0.0	5.3
XUF (%)	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Feb 1972	Lifetime Generation:	164492.5 GW(e).h
Date of First Criticality:	26 May 1976	Cumulative Energy Availability Factor:	82.5%
Date of Grid Connection:	03 Jun 1976	Cumulative Load Factor:	80.4%
Date of Commercial Operation:	01 Dec 1976	Cumulative Unit Capability Factor:	87.6%
		Cumulative Energy Unavailability Factor:	17.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	508.6	791.0	100.0	100.0	89.3	89.3	86.4	86.4	658	88.4
1977	4946.6	810.0	100.0	100.0	70.6	72.0	69.7	71.0	6513	74.3
1978	4934.5	810.0	100.0	100.0	70.2	71.1	69.5	70.3	6583	75.1
1979	3573.0	810.0	100.0	100.0	53.6	65.5	50.4	63.8	4698	53.6
1980	5473.0	810.0	100.0	100.0	77.8	68.5	76.9	67.0	7080	80.6
1981	5949.3	810.0	100.0	100.0	84.9	71.7	83.8	70.3	7705	88.0
1982	5781.1	810.0	82.4	97.1	82.4	73.5	81.5	72.2	7517	85.8
1983	6047.0	810.0	85.3	95.4	85.3	75.1	85.2	74.0	7910	90.3
1984	5842.0	795.0	83.1	93.9	83.1	76.1	83.7	75.2	7618	86.7
1985	6161.4	795.0	88.8	93.4	88.8	77.5	88.5	76.6	8050	91.9
1986	4153.1	795.0	59.6	90.1	59.6	75.7	59.6	75.0	5368	61.3
1987	5395.1	795.0	76.8	88.9	76.8	75.8	77.5	75.2	6828	77.9
1988	5269.4	795.0	75.5	87.8	75.5	75.8	75.5	75.2	6772	77.1
1989	4019.5	795.0	64.2	86.0	64.2	74.9	57.7	73.9	6395	73.0
1990	5754.1	785.0	82.8	85.8	82.8	75.5	83.7	74.6	7524	85.9
1991	5404.5	785.0	85.0	85.7	85.0	76.1	78.6	74.8	7614	86.9
1992	5270.1	785.0	83.6	85.6	83.6	76.6	76.4	74.9	7470	85.0
1993	5559.5	785.0	81.6	85.4	81.6	76.8	80.8	75.3	7371	84.1
1994	6307.8	785.0	92.0	85.7	92.0	77.7	91.7	76.2	8184	93.4
1995	5966.0	785.0	87.4	85.8	87.4	78.2	86.8	76.7	8020	91.6
1996	6054.5	785.0	92.0	86.1	92.0	78.9	87.8	77.3	8301	94.5
1997	6230.2	785.0	92.6	86.4	92.6	79.5	90.6	77.9	8305	94.8
1998	5907.8	785.0	91.3	86.6	91.1	80.0	85.9	78.2	8185	93.4
1999	5849.1	785.0	90.0	86.8	90.0	80.4	85.1	78.5	8022	91.6
2000	6141.4	785.0	94.2	87.1	94.2	81.0	89.1	79.0	8284	94.3
2001	5991.5	785.0	90.0	87.2	88.1	81.3	87.1	79.3	8038	91.8
2002	6238.3	785.0	92.7	87.4	92.7	81.7	90.7	79.7	8239	94.1
2003	6024.0	785.0	90.5	87.5	90.5	82.0	87.6	80.0	8304	94.8
2004	5928.5	785.0	89.7	87.6	89.7	82.3	86.0	80.2	8270	94.1
2005	5882.7	785.0	86.9	87.6	86.9	82.5	85.5	80.4	8069	92.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		28			35	
C. Inspection, maintenance or repair combined with refuelling	568			1120		
D. Inspection, maintenance or repair without refuelling	94			19		
E. Testing of plant systems or components					51	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						1
Subtotal	662	28	0	1139	86	1
Total		690			1226	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
14. Safety Systems	28	1
15. Reactor Cooling Systems		19
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		7
41. Main Generator Systems		3
42. Electrical Power Supply Systems		0
Total	28	32

DE-44 NECKARWESTHEIM-2 (GKN 2)

Operator: EnBW (EnBW Kraftwerk AG)

Contractor: SIEM, KWU (SIEMENS AG, KRAFTWERK UNION AG)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1305.0 MW(e)
 Design Net Capacity: 1225.0 MW(e)
 Design Discharge Burnup: 36800 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10836.4 GW(e).h
 Energy Availability Factor: 94.8%
 Load Factor: 94.8%
 Operating Factor: 95.6%
 Energy Unavailability Factor: 5.2%
 Total Off-line Time: 389 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	979.8	887.8	977.3	942.5	967.1	927.7	934.2	419.7	915.3	964.7	941.0	979.4	10836.4
EAF (%)	100.0	99.8	100.0	100.0	100.0	100.0	97.6	43.0	98.7	100.0	99.9	100.0	94.8
UCF (%)	100.0	99.8	100.0	100.0	100.0	100.0	99.6	47.6	98.7	100.0	99.9	100.0	95.4
LF (%)	100.9	101.2	100.7	100.4	99.6	98.7	96.2	43.2	97.4	99.2	100.1	100.9	94.8
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	100.0	48.5	99.2	100.0	100.0	100.0	95.6
EUF (%)	0.0	0.2	0.0	0.0	0.0	0.0	2.4	57.0	1.3	0.0	0.1	0.0	5.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.4	0.0	0.0	0.1	0.0	4.5
UCLF (%)	0.0	0.2	0.0	0.0	0.0	0.0	0.5	0.0	1.3	0.0	0.0	0.0	0.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.9	4.7	0.0	0.0	0.0	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

IN APRIL 2005 THE POWER UNIT OPERATED WITHOUT SCRAM SINCE 11 YEARS

5. Historical Summary

Date of Construction Start: 09 Nov 1982 Lifetime Generation: 173226.9 GW(e).h
 Date of First Criticality: 29 Dec 1988 Cumulative Energy Availability Factor: 93.5%
 Date of Grid Connection: 03 Jan 1989 Cumulative Load Factor: 92.3%
 Date of Commercial Operation: 15 Apr 1989 Cumulative Unit Capability Factor: 93.6%
 Cumulative Energy Unavailability Factor: 6.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	6810.0	1225.0	99.8	99.8	99.8	99.8	84.2	84.2	6254	94.7
1990	9693.9	1225.0	90.2	94.3	90.2	94.3	90.3	87.7	7958	90.8
1991	9434.9	1225.0	90.5	92.9	90.5	92.9	87.9	87.8	7932	90.5
1992	10204.6	1269.0	91.6	92.6	91.6	92.6	91.5	88.8	8094	92.1
1993	9912.2	1269.0	89.0	91.8	89.0	91.8	89.2	88.9	8163	93.2
1994	10320.7	1269.0	93.6	92.1	93.6	92.1	92.8	89.6	8215	93.8
1995	10532.0	1269.0	94.7	92.5	94.7	92.5	94.7	90.4	8351	95.3
1996	10614.3	1269.0	95.1	92.8	95.1	92.8	95.2	91.0	8419	95.8
1997	10111.6	1269.0	91.5	92.7	91.5	92.7	91.0	91.0	8028	91.6
1998	10610.8	1269.0	96.0	93.0	96.0	93.0	95.5	91.5	8411	96.0
1999	10460.9	1269.0	96.1	93.3	96.1	93.3	94.1	91.7	8435	96.3
2000	10473.9	1269.0	96.2	93.6	96.2	93.6	94.0	91.9	8450	96.2
2001	10423.9	1269.0	95.4	93.7	94.2	93.6	93.8	92.0	8363	95.5
2002	9787.5	1269.0	88.7	93.3	88.7	93.3	88.0	91.8	7777	88.8
2003	10545.0	1269.0	95.8	93.5	95.8	93.4	94.9	92.0	8408	96.0
2004	10470.7	1269.0	92.9	93.5	92.9	93.4	93.9	92.1	8165	93.0
2005	10836.4	1305.0	95.4	93.6	94.8	93.5	94.8	92.3	8371	95.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	382	6		481	7	
Subtotal	382	6	0	481	7	0
Total	388			488		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		6
32. Feedwater and Main Steam System		0
41. Main Generator Systems	6	0
Total	6	6

DE-5 OBRIGHEIM (KWO)

Operator: EnBW (EnBW Kraftwerk AG)

Contractor: SIEM, KWU (SIEMENS AG, KRAFTWERK UNION AG)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 340.0 MW(e)
Design Net Capacity: 283.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Permanent Shutdown

2. Production Summary 2005

Net Energy Production: 857.7 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 69.6%
Operating Factor: 86.3%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 497 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	231.4	225.7	212.1	148.7	39.9								857.7
EAF (%)	100.0	100.0	100.0	100.0	100.0								100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0								100.0
LF (%)	91.5	98.8	83.8	60.7	15.8								69.6
OF (%)	100.0	100.0	99.9	100.0	33.3								86.3
EUF (%)	0.0	0.0	0.0	0.0	0.0								0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0								0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0								0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0								0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

AFTER 36 YEARS POWER OPERATION THE NUCLEAR POWER PLANT WAS SHUT DOWN ON 2005-05-11 AT 7:58 O'CLOCK

5. Historical Summary

Date of Construction Start:	15 Mar 1965	Lifetime Generation:	86820.9 GW(e).h
Date of First Criticality:	22 Sep 1968	Cumulative Energy Availability Factor:	82.8%
Date of Grid Connection:	29 Oct 1968	Cumulative Load Factor:	79.2%
Date of Commercial Operation:	31 Mar 1969	Cumulative Unit Capability Factor:	88.9%
Date of Shutdown:	11 May 2005	Cumulative Energy Unavailability Factor:	17.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1969	0.0	340.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	2523.0	345.0	100.0	100.0	83.0	90.7	83.5	45.7	7347	83.9
1971	2257.2	345.0	100.0	100.0	76.5	85.7	74.7	56.0	6735	76.9
1972	2402.2	345.0	100.0	100.0	79.2	84.0	79.3	62.1	7034	80.1
1973	2500.1	328.0	89.9	98.0	88.6	84.9	87.0	67.0	7870	89.8
1974	2435.8	328.0	85.3	95.9	85.0	84.9	84.8	70.0	8068	92.1
1975	2588.3	328.0	91.5	95.3	91.0	85.8	90.1	72.8	8017	91.5
1976	2219.2	328.0	100.0	95.8	77.1	84.7	77.0	73.4	7088	80.7
1977	2144.6	328.0	100.0	96.3	75.1	83.6	74.7	73.5	6744	77.0
1978	2220.1	328.0	100.0	96.7	77.6	83.0	77.3	73.9	6863	78.3
1979	2372.0	328.0	100.0	97.0	82.6	83.0	82.6	74.7	7491	85.5
1980	2126.0	328.0	100.0	97.2	73.8	82.2	73.8	74.6	6689	76.1
1981	2402.0	328.0	83.6	96.2	83.6	82.3	83.6	75.3	7649	87.3
1982	2407.4	328.0	83.8	95.3	83.8	82.4	83.8	75.9	7534	86.0
1983	1951.0	328.0	67.6	93.5	67.4	81.4	67.9	75.4	6051	69.1
1984	2483.0	340.0	83.1	92.8	83.1	81.5	83.1	75.9	7798	88.8
1985	2592.9	340.0	86.7	92.4	86.7	81.9	87.1	76.5	7783	88.8
1986	2663.3	340.0	88.7	92.2	88.7	82.2	89.4	77.3	7869	89.8
1987	2483.0	340.0	83.0	91.7	83.0	82.3	83.4	77.6	7351	83.9
1988	2621.6	340.0	88.0	91.5	88.0	82.6	87.8	78.1	7800	88.8
1989	2558.0	340.0	86.1	91.2	86.1	82.7	85.9	78.5	7756	88.5
1990	1178.2	340.0	39.4	88.8	39.4	80.7	39.6	76.7	3475	39.7
1991	1051.7	340.0	79.5	88.4	35.3	78.7	35.3	74.9	3186	36.4
1992	1882.0	340.0	67.6	87.5	67.6	78.2	63.0	74.4	6015	68.5
1993	2616.8	340.0	88.3	87.6	88.3	78.7	87.9	74.9	7773	88.7
1994	2623.8	340.0	89.4	87.6	89.4	79.1	88.1	75.4	7858	89.7
1995	2165.4	340.0	76.4	87.2	76.4	79.0	72.7	75.3	6717	76.7
1996	2775.0	340.0	93.1	87.4	93.1	79.5	92.9	76.0	8189	93.2
1997	2769.4	340.0	93.8	87.7	93.8	80.0	93.0	76.6	8242	94.1
1998	2758.8	340.0	94.7	87.9	94.7	80.5	92.6	77.1	8317	94.9
1999	2802.8	340.0	94.8	88.1	94.8	81.0	94.1	77.7	8319	95.0
2000	2660.3	340.0	89.7	88.2	89.7	81.2	89.1	78.0	7888	89.8
2001	2797.1	340.0	96.0	88.4	94.4	81.6	93.9	78.5	8424	96.2
2002	2841.1	340.0	95.9	88.6	95.9	82.1	95.4	79.0	8410	96.0
2003	2450.2	340.0	88.3	88.6	88.3	82.2	82.3	79.1	7747	88.4
2004	2592.8	340.0	93.8	88.8	93.8	82.6	86.8	79.3	8256	94.0
2005	857.7	340.0	100.0	88.9	100.0	82.8	69.6	79.2	3127	86.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					155	
B. Refuelling without a maintenance					25	
C. Inspection, maintenance or repair combined with refuelling	963					
D. Inspection, maintenance or repair without refuelling	12					
E. Testing of plant systems or components	0				0	
H. Nuclear regulatory requirements					127	108
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						5
Z. Others					0	
Subtotal	0	0	0	975	307	113
Total	0			1395		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		15
12. Reactor I&C Systems		35
13. Reactor Auxiliary Systems		2
15. Reactor Cooling Systems		26
16. Steam generation systems		40
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		0
33. Circulating Water System		3
41. Main Generator Systems		26
42. Electrical Power Supply Systems		0
Total	0	151

DE-14 PHILIPPSBURG-1 (KKP 1)

Operator: EnBW (EnBW Kraftwerk AG)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 890.0 MW(e)
 Design Net Capacity: 864.0 MW(e)
 Design Discharge Burnup: 39900 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5811.8 GW(e).h
 Energy Availability Factor: 75.8%
 Load Factor: 74.5%
 Operating Factor: 78.0%
 Energy Unavailability Factor: 24.2%
 Total Off-line Time: 1925 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	645.1	590.1	640.9	584.1	0.0	119.2	636.5	643.7	614.3	647.1	367.5	323.3	5811.8
EAF (%)	99.8	99.0	98.8	91.3	0.2	19.5	96.3	100.0	96.0	100.0	60.2	49.5	75.8
UCF (%)	99.8	100.0	98.8	100.0	0.2	22.9	99.8	100.0	98.6	100.0	60.2	51.2	77.5
LF (%)	97.4	98.7	96.8	91.3	0.0	18.6	96.1	97.2	95.9	97.6	57.4	48.8	74.5
OF (%)	100.0	100.0	99.9	100.1	0.7	24.0	100.0	100.0	100.0	100.0	60.7	52.2	78.0
EUf (%)	0.2	1.0	1.2	8.7	99.8	80.5	3.7	0.0	4.0	0.0	39.8	50.5	24.2
PUF (%)	0.2	0.0	1.0	0.0	99.8	65.8	0.0	0.0	1.5	0.0	0.0	0.0	14.1
UCLF (%)	0.0	0.0	0.2	0.0	0.0	11.3	0.2	0.0	0.0	0.0	39.8	48.8	8.4
XUF (%)	0.0	1.0	0.0	8.7	0.0	3.3	3.5	0.0	2.5	0.0	0.0	1.7	1.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1970 Lifetime Generation: 153101.4 GW(e).h
 Date of First Criticality: 09 Mar 1979 Cumulative Energy Availability Factor: 78.5%
 Date of Grid Connection: 07 May 1979 Cumulative Load Factor: 76.4%
 Date of Commercial Operation: 26 Mar 1980 Cumulative Unit Capability Factor: 81.8%
 Cumulative Energy Unavailability Factor: 21.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	1205.0	864.0	19.2	19.2	19.2	19.2	19.0	19.0	1562	21.3
1981	1090.9	864.0	100.0	63.1	16.6	17.8	14.4	16.5	1465	16.7
1982	5034.4	840.0	66.5	64.3	66.5	34.6	68.4	34.5	6237	71.2
1983	5503.0	864.0	72.7	66.5	72.7	44.6	72.7	44.5	6567	75.0
1984	6325.0	864.0	83.2	70.0	83.2	52.7	83.3	52.6	7482	85.2
1985	6120.2	864.0	81.1	71.9	81.1	57.6	80.9	57.5	7561	86.3
1986	5222.0	864.0	69.1	71.5	69.1	59.3	69.0	59.1	6148	70.2
1987	6488.4	864.0	84.9	73.2	84.9	62.5	85.7	62.5	7582	86.6
1988	6199.6	864.0	83.7	74.4	83.7	64.9	81.7	64.7	7302	83.1
1989	6158.9	864.0	81.4	75.1	81.4	66.6	81.4	66.4	7432	84.8
1990	5203.1	864.0	68.3	74.5	68.3	66.8	68.7	66.6	6138	70.1
1991	6171.9	864.0	82.9	75.2	82.9	68.1	81.5	67.9	7304	83.4
1992	6513.0	864.0	86.6	76.1	86.6	69.6	85.8	69.3	7647	87.1
1993	4614.5	864.0	74.7	76.0	74.7	69.9	61.0	68.7	6599	75.3
1994	6565.9	864.0	86.5	76.7	86.5	71.1	86.8	69.9	7645	87.3
1995	6317.1	876.0	86.9	77.3	86.9	72.1	82.3	70.7	7671	87.6
1996	6929.8	864.0	91.1	78.2	91.1	73.2	91.3	71.9	8087	92.1
1997	6409.5	876.0	85.3	78.6	85.3	73.9	83.5	72.6	7510	85.7
1998	6905.9	890.0	93.9	79.4	93.9	75.0	88.6	73.5	8253	94.2
1999	6892.9	890.0	94.3	80.2	94.3	76.0	88.4	74.2	8292	94.7
2000	6904.9	890.0	92.9	80.8	92.9	76.8	88.3	74.9	8187	93.2
2001	6956.9	890.0	92.7	81.4	92.7	77.6	89.2	75.6	8206	93.7
2002	6559.4	890.0	89.4	81.7	89.4	78.1	84.1	76.0	7885	90.0
2003	6395.2	890.0	86.0	81.9	86.0	78.4	82.0	76.2	7629	87.1
2004	6332.0	890.0	83.5	82.0	83.5	78.6	81.0	76.4	7425	84.5
2005	5811.8	890.0	77.5	81.8	75.8	78.5	74.5	76.4	6835	78.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		639			125	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1213	73		968		
D. Inspection, maintenance or repair without refuelling				20		
E. Testing of plant systems or components					6	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	
Z. Others					6	
Subtotal	1213	712	0	988	142	0
Total		1925			1130	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		2
14. Safety Systems		10
15. Reactor Cooling Systems	639	23
31. Turbine and auxiliaries		23
32. Feedwater and Main Steam System		26
33. Circulating Water System		1
41. Main Generator Systems		6
42. Electrical Power Supply Systems		0
XX. Miscellaneous Systems		15
Total	639	113

DE-24 PHILIPPSBURG-2 (KKP 2)

Operator: EnBW (EnBW Kraftwerk AG)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1392.0 MW(e)
 Design Net Capacity: 1268.0 MW(e)
 Design Discharge Burnup: 40000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10823.4 GW(e).h
 Energy Availability Factor: 89.3%
 Load Factor: 88.8%
 Operating Factor: 92.5%
 Energy Unavailability Factor: 10.7%
 Total Off-line Time: 661 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1022.7	925.5	1020.6	983.7	997.8	891.5	408.2	615.5	964.1	1008.6	975.9	1009.3	10823.4
EAF (%)	100.0	98.9	98.7	98.2	96.4	89.0	39.8	60.0	96.2	100.0	97.4	99.1	89.3
UCF (%)	100.0	100.0	99.9	100.0	99.8	100.0	48.5	62.7	100.0	100.0	100.0	99.1	92.3
LF (%)	98.7	98.9	98.5	98.3	96.3	89.0	39.4	59.4	96.2	97.3	97.4	97.5	88.8
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	48.9	62.8	100.0	100.0	100.0	99.5	92.5
EUF (%)	0.0	1.1	1.3	1.8	3.6	11.0	60.2	40.0	3.8	0.0	2.6	0.9	10.7
PUF (%)	0.0	0.0	0.1	0.0	0.0	0.0	51.6	27.4	0.0	0.0	0.0	0.0	6.7
UCLF (%)	0.0	0.0	0.0	0.0	0.2	0.0	0.0	9.9	0.0	0.0	0.0	0.9	0.9
XUF (%)	0.0	1.1	1.2	1.8	3.4	11.0	8.6	2.7	3.8	0.0	2.6	0.0	3.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 07 Jul 1977
 Date of First Criticality: 13 Dec 1984
 Date of Grid Connection: 17 Dec 1984
 Date of Commercial Operation: 17 Apr 1985

Lifetime Generation: 214478.3 GW(e).h
 Cumulative Energy Availability Factor: 89.0%
 Cumulative Load Factor: 88.2%
 Cumulative Unit Capability Factor: 90.2%
 Cumulative Energy Unavailability Factor: 11.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	7930.0	1268.0	95.0	95.0	95.0	95.0	94.7	94.7	6411	97.1
1986	10235.3	1268.0	90.6	92.5	90.6	92.5	92.1	93.3	7958	90.8
1987	9616.2	1268.0	85.0	89.8	85.0	89.8	86.6	90.8	7446	85.0
1988	9710.8	1268.0	86.5	88.9	86.5	88.9	87.2	89.9	7656	87.2
1989	9677.3	1268.0	86.2	88.3	86.2	88.3	87.1	89.3	7575	86.5
1990	8516.3	1268.0	75.5	86.1	75.5	86.1	76.7	87.1	6628	75.7
1991	9903.3	1276.0	88.4	86.4	88.0	86.4	89.1	87.4	7757	88.6
1992	9400.0	1324.0	82.2	85.9	82.2	85.8	83.3	86.9	7273	82.8
1993	10481.3	1324.0	90.5	86.4	90.5	86.4	90.4	87.3	7946	90.7
1994	10284.8	1336.0	88.7	86.7	88.7	86.6	87.9	87.3	7778	88.8
1995	10550.5	1336.0	91.0	87.1	91.0	87.0	90.1	87.6	7990	91.2
1996	11217.6	1358.0	94.7	87.8	94.7	87.7	94.0	88.2	8323	94.8
1997	11113.5	1358.0	95.3	88.4	95.3	88.4	93.4	88.6	8358	95.4
1998	10731.5	1358.0	93.0	88.7	93.0	88.7	90.2	88.7	8304	94.8
1999	11122.9	1358.0	96.1	89.3	96.1	89.2	93.5	89.1	8431	96.2
2000	10689.1	1392.0	92.2	89.5	92.2	89.4	89.2	89.1	8115	92.4
2001	8995.8	1392.0	96.0	89.9	76.6	88.6	73.8	88.1	6749	77.0
2002	11053.2	1392.0	92.4	90.0	92.4	88.8	90.6	88.3	8138	92.9
2003	11010.2	1392.0	93.5	90.2	93.5	89.1	90.3	88.4	8234	94.0
2004	10295.0	1392.0	86.9	90.0	86.9	89.0	84.2	88.2	7641	87.0
2005	10823.4	1392.0	92.3	90.2	89.3	89.0	88.8	88.2	8099	92.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					90	
C. Inspection, maintenance or repair combined with refuelling	584	73		653		
D. Inspection, maintenance or repair without refuelling				53		
E. Testing of plant systems or components				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						79
Z. Others					20	
Subtotal	584	73	0	706	110	79
Total		657			895	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		5
15. Reactor Cooling Systems		60
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		0
41. Main Generator Systems		14
42. Electrical Power Supply Systems		7
Total	0	87

DE-17 UNTERWESER (KKU)

Operator: EON (EON Kernkraft Ges.m.b.H)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1345.0 MW(e)
 Design Net Capacity: 1230.0 MW(e)
 Design Discharge Burnup: 35400 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8890.6 GW(e).h
 Energy Availability Factor: 75.9%
 Load Factor: 75.5%
 Operating Factor: 77.0%
 Energy Unavailability Factor: 24.1%
 Total Off-line Time: 2018 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	927.2	907.9	1008.1	972.8	688.7	0.0	0.0	525.5	884.7	998.7	974.1	1003.2	8890.6
EAF (%)	100.0	100.0	99.9	99.8	68.5	0.0	0.0	52.5	91.6	99.9	100.0	100.0	75.9
UCF (%)	100.0	100.0	99.9	99.8	68.5	0.0	0.0	54.3	100.0	100.0	100.0	100.0	76.7
LF (%)	92.7	100.4	100.7	100.6	68.8	0.0	0.0	52.5	91.4	99.7	100.6	100.3	75.5
OF (%)	100.0	100.0	99.9	100.1	68.5	0.0	0.0	57.0	100.0	100.0	100.0	100.0	77.0
EUf (%)	0.0	0.0	0.1	0.2	31.5	100.0	100.0	47.5	8.4	0.1	0.0	0.0	24.1
PUf (%)	0.0	0.0	0.1	0.0	6.5	40.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
UCLF (%)	0.0	0.0	0.0	0.2	25.0	60.0	100.0	45.7	0.0	0.0	0.0	0.0	19.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	8.4	0.1	0.0	0.0	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jul 1972 Lifetime Generation: 237887.5 GW(e).h
 Date of First Criticality: 16 Sep 1978 Cumulative Energy Availability Factor: 82.0%
 Date of Grid Connection: 29 Sep 1978 Cumulative Load Factor: 79.5%
 Date of Commercial Operation: 06 Sep 1979 Cumulative Unit Capability Factor: 84.3%
 Cumulative Energy Unavailability Factor: 18.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	3338.0	1230.0	100.0	100.0	92.1	92.1	92.7	92.7	2731	93.3
1980	9272.0	1230.0	100.0	100.0	85.8	87.3	85.8	87.5	7832	89.2
1981	9023.5	1230.0	100.0	100.0	83.5	85.7	83.7	85.9	7606	86.8
1982	9114.2	1230.0	84.9	95.5	84.7	85.4	84.6	85.5	8022	91.6
1983	8215.0	1230.0	100.0	96.5	75.8	83.2	76.2	83.4	7191	82.1
1984	9483.0	1230.0	87.2	94.8	87.2	83.9	87.8	84.2	7908	90.0
1985	9931.8	1230.0	93.4	94.6	93.4	85.4	92.2	85.5	8279	94.5
1986	7280.8	1230.0	67.4	90.9	67.4	83.0	67.6	83.0	6254	71.4
1987	8673.9	1230.0	80.7	89.6	80.7	82.7	80.5	82.7	7277	83.1
1988	9108.4	1230.0	84.9	89.1	84.9	82.9	84.3	82.9	7627	86.8
1989	9245.6	1230.0	89.3	89.2	89.3	83.6	85.8	83.2	7873	89.9
1990	8485.0	1230.0	78.9	88.2	78.9	83.2	78.7	82.8	6921	79.0
1991	6485.9	1243.0	61.1	86.0	61.1	81.4	60.1	80.9	5369	61.3
1992	8731.5	1230.0	86.5	86.1	86.5	81.7	80.8	80.9	7646	87.0
1993	10824.8	1255.0	99.9	87.1	99.9	83.0	98.5	82.2	8760	100.0
1994	7685.9	1255.0	80.1	86.6	80.1	82.8	69.9	81.4	7039	80.4
1995	7980.6	1255.0	77.5	86.0	77.5	82.5	72.6	80.8	6832	78.0
1996	9907.7	1285.0	91.3	86.3	91.3	83.0	87.8	81.2	8055	91.7
1997	9932.4	1285.0	94.4	86.8	94.4	83.7	88.2	81.6	8291	94.6
1998	6618.0	1285.0	58.7	85.3	58.7	82.3	58.8	80.4	5217	59.6
1999	8096.6	1285.0	78.3	84.9	78.3	82.1	71.9	80.0	6899	78.8
2000	9615.8	1345.0	86.2	85.0	86.2	82.3	84.5	80.2	7604	86.6
2001	10656.7	1345.0	95.2	85.5	90.8	82.7	90.4	80.7	8378	95.6
2002	6774.8	1345.0	60.5	84.4	60.5	81.7	57.5	79.6	5313	60.7
2003	9254.9	1345.0	88.3	84.5	88.3	82.0	78.5	79.6	7882	90.0
2004	9724.0	1345.0	87.4	84.6	87.4	82.2	82.3	79.7	7711	87.8
2005	8890.6	1345.0	76.7	84.3	75.9	82.0	75.5	79.5	6742	77.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		186			281	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	336	1496		854	41	
D. Inspection, maintenance or repair without refuelling				31		
E. Testing of plant systems or components				31		
H. Nuclear regulatory requirements				0	28	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					19	
Subtotal	336	1682	0	916	382	0
Total		2018			1298	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		35
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		23
15. Reactor Cooling Systems		15
31. Turbine and auxiliaries		58
32. Feedwater and Main Steam System		2
33. Circulating Water System		0
41. Main Generator Systems	186	137
42. Electrical Power Supply Systems		1
XX. Miscellaneous Systems		0
Total	186	277

HU-1 PAKS-1

Operator: PAKS RT. (PAKS NUCLEAR POWER PLANT LTD)
Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 437.0 MW(e)
Design Net Capacity: 408.0 MW(e)
Design Discharge Burnup: 37000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3503.5 GW(e).h
Energy Availability Factor: 91.5%
Load Factor: 91.5%
Operating Factor: 91.7%
Energy Unavailability Factor: 8.5%
Total Off-line Time: 731 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	324.6	288.8	324.1	83.5	243.2	313.5	324.5	323.0	314.6	325.3	314.3	324.0	3503.5
EAF (%)	99.8	98.4	99.8	26.4	74.8	99.6	99.8	99.4	100.0	99.9	99.9	99.7	91.5
UCF (%)	99.8	98.4	99.8	26.4	74.8	99.6	99.8	99.4	100.0	99.9	99.9	99.7	91.5
LF (%)	99.8	98.4	99.7	26.6	74.8	99.6	99.8	99.4	100.0	99.9	99.9	99.7	91.5
OF (%)	100.0	98.8	99.9	26.7	74.9	99.7	100.0	99.2	100.0	100.0	100.0	100.0	91.7
EUF (%)	0.2	1.6	0.2	73.6	25.2	0.4	0.2	0.6	0.0	0.1	0.1	0.3	8.5
PUF (%)	0.0	0.0	0.0	73.6	25.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0	8.2
UCLF (%)	0.2	1.6	0.2	0.0	0.1	0.3	0.2	0.1	0.0	0.1	0.1	0.3	0.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE.

5. Historical Summary

Date of Construction Start: 01 Aug 1974
Date of First Criticality: 14 Dec 1982
Date of Grid Connection: 28 Dec 1982
Date of Commercial Operation: 10 Aug 1983

Lifetime Generation: 72906.1 GW(e).h
Cumulative Energy Availability Factor: 85.5%
Cumulative Load Factor: 86.5%
Cumulative Unit Capability Factor: 85.7%
Cumulative Energy Unavailability Factor: 14.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	1370.0	410.0	100.0	100.0	91.0	91.0	91.0	91.0	3662	99.7
1984	2595.3	410.0	75.7	83.0	75.6	80.2	73.3	78.5	6901	78.6
1985	2997.3	410.0	84.2	83.5	84.2	81.9	83.5	80.6	7491	85.5
1986	3114.6	410.0	87.1	84.5	87.1	83.4	86.7	82.4	7718	88.1
1987	2883.1	415.0	79.2	83.3	79.2	82.4	79.3	81.7	7107	81.1
1988	3076.9	415.0	85.8	83.8	85.8	83.1	84.4	82.2	7737	88.1
1989	3182.2	415.0	87.7	84.4	87.7	83.8	87.5	83.0	7929	90.5
1990	3216.8	415.0	87.2	84.8	87.2	84.3	88.5	83.8	7837	89.5
1991	2883.9	410.0	75.1	83.6	75.1	83.2	80.3	83.4	6823	77.9
1992	3498.9	430.0	84.9	83.8	84.9	83.4	92.6	84.4	7629	86.9
1993	3512.4	430.0	85.8	84.0	85.8	83.6	93.2	85.3	7637	87.2
1994	3441.5	430.0	89.9	84.5	89.8	84.2	91.4	85.8	8031	91.7
1995	3056.3	430.0	79.6	84.1	79.5	83.8	81.1	85.4	7088	80.9
1996	3472.7	430.0	90.7	84.6	90.6	84.3	91.9	85.9	8033	91.5
1997	3328.5	430.0	87.0	84.8	86.9	84.5	88.4	86.1	7646	87.3
1998	3487.7	430.0	92.4	85.3	92.4	85.0	92.6	86.5	8095	92.4
1999	3117.5	430.0	81.6	85.1	81.2	84.8	82.8	86.3	7240	82.6
2000	3192.1	430.0	82.5	84.9	82.3	84.6	84.5	86.2	7268	82.7
2001	3514.9	437.0	91.8	85.3	91.6	85.0	91.8	86.5	8069	92.1
2002	3330.7	437.0	90.2	85.6	90.1	85.3	87.0	86.5	7909	90.3
2003	3097.8	437.0	81.0	85.3	81.0	85.1	80.9	86.3	7197	82.1
2004	3342.3	437.0	87.1	85.4	87.1	85.2	87.1	86.3	7692	87.6
2005	3503.5	437.0	91.5	85.7	91.5	85.5	91.5	86.5	8029	91.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		10			75	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	716			962	29	
D. Inspection, maintenance or repair without refuelling				18		
E. Testing of plant systems or components					0	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					7	
Z. Others					9	
Subtotal	716	10	0	980	121	0
Total		726			1101	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		18
14. Safety Systems		4
15. Reactor Cooling Systems		2
16. Steam generation systems		14
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		13
33. Circulating Water System		1
35. All other I&C Systems		0
41. Main Generator Systems	10	0
42. Electrical Power Supply Systems		0
Total	10	54

HU-2 PAKS-2

Operator: PAKS RT. (PAKS NUCLEAR POWER PLANT LTD)
Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 441.0 MW(e)
Design Net Capacity: 410.0 MW(e)
Design Discharge Burnup: 37000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2929.5 GW(e).h
Energy Availability Factor: 75.8%
Load Factor: 75.8%
Operating Factor: 76.1%
Energy Unavailability Factor: 24.2%
Total Off-line Time: 2091 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	28.9	310.0	327.6	317.2	327.8	327.8	317.3	328.5	317.4	327.0	2929.5
EAF (%)	0.0	0.0	8.9	97.7	99.8	99.9	99.9	99.9	99.9	100.0	100.0	99.7	75.8
UCF (%)	0.0	0.0	9.0	97.7	99.8	99.9	99.9	99.9	99.9	100.0	100.0	99.7	75.8
LF (%)	0.0	0.0	8.8	97.8	99.8	99.9	99.9	99.9	99.9	100.0	100.0	99.7	75.8
OF (%)	0.0	0.0	11.6	97.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	76.1
EUF (%)	100.0	100.0	91.1	2.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.3	24.2
PUF (%)	100.0	100.0	74.2	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6
UCLF (%)	0.0	0.0	16.9	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.3	1.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE.

5. Historical Summary

Date of Construction Start: 01 Aug 1974
Date of First Criticality: 26 Aug 1984
Date of Grid Connection: 06 Sep 1984
Date of Commercial Operation: 14 Nov 1984

Lifetime Generation: 64137.8 GW(e).h
Cumulative Energy Availability Factor: 79.4%
Cumulative Load Factor: 80.4%
Cumulative Unit Capability Factor: 79.4%
Cumulative Energy Unavailability Factor: 20.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	584.2	410.0	94.1	94.1	94.1	94.1	97.3	97.3	1456	99.5
1985	3101.6	415.0	85.1	86.4	85.1	86.4	85.3	87.0	7695	87.8
1986	3148.3	415.0	86.0	86.2	86.0	86.2	86.6	86.8	7643	87.2
1987	3193.9	415.0	85.3	85.9	85.3	85.9	87.9	87.2	7770	88.7
1988	3046.3	415.0	81.9	85.0	81.9	85.0	83.6	86.3	7352	83.7
1989	3300.7	415.0	88.6	85.7	88.6	85.7	90.8	87.2	7962	90.9
1990	3338.2	425.0	88.0	86.1	88.0	86.1	89.7	87.6	7845	89.6
1991	3421.6	415.0	88.6	86.4	88.6	86.4	94.1	88.5	7912	90.3
1992	3174.9	433.0	76.0	85.1	76.0	85.1	83.5	87.8	6829	77.7
1993	3569.0	433.0	87.0	85.3	87.0	85.3	94.1	88.6	7731	88.3
1994	3440.4	433.0	89.5	85.7	89.4	85.7	90.7	88.8	8000	91.3
1995	3309.1	433.0	86.6	85.8	86.4	85.8	87.2	88.6	7657	87.4
1996	3019.9	433.0	79.5	85.3	79.4	85.3	79.4	87.8	7011	79.8
1997	3267.6	433.0	88.3	85.5	88.2	85.5	86.1	87.7	7807	89.1
1998	3206.7	433.0	88.3	85.7	88.2	85.7	84.5	87.5	7717	88.1
1999	3246.6	433.0	90.2	86.0	89.2	85.9	85.6	87.4	7780	88.8
2000	3059.3	433.0	80.1	85.6	80.0	85.5	80.4	86.9	7073	80.5
2001	3266.9	441.0	84.9	85.6	84.8	85.5	84.6	86.8	7484	85.4
2002	3338.5	441.0	86.7	85.7	86.5	85.6	86.4	86.8	7644	87.3
2003	918.8	441.0	23.8	82.3	23.8	82.2	23.8	83.4	2089	23.8
2004	1137.2	441.0	29.4	79.6	29.4	79.5	29.4	80.6	2620	29.8
2005	2929.5	441.0	75.8	79.4	75.8	79.4	75.8	80.4	6669	76.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					596	
B. Refuelling without a maintenance					17	
C. Inspection, maintenance or repair combined with refuelling	1968			852	20	
D. Inspection, maintenance or repair without refuelling				15		
E. Testing of plant systems or components				1	0	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					23	
L. Human factor related		191				
Z. Others					6	
Subtotal	1968	191	0	868	662	0
Total		2159			1530	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		524
12. Reactor I&C Systems		22
15. Reactor Cooling Systems		4
16. Steam generation systems		11
17. Safety I&C Systems (excluding reactor I&C)		22
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		0
41. Main Generator Systems		0
42. Electrical Power Supply Systems		2
Total	0	586

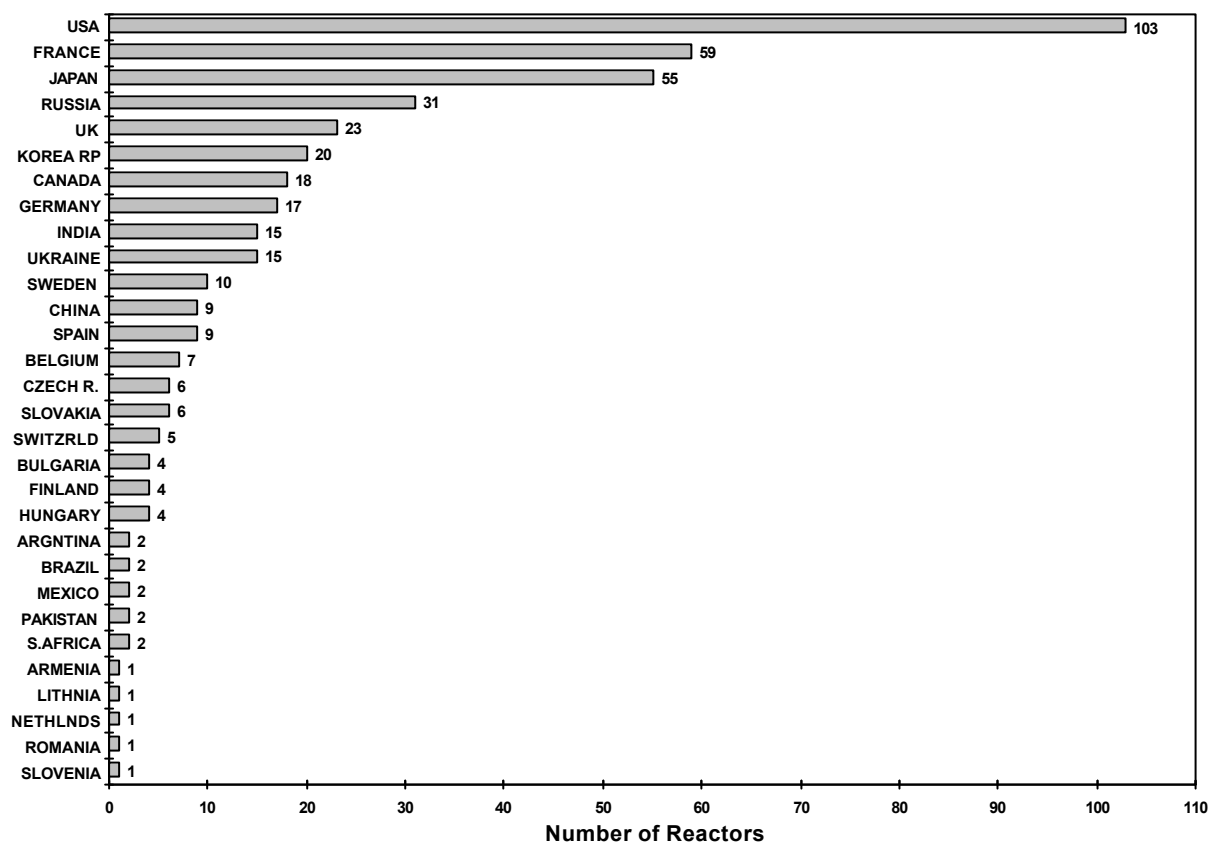


Figure 5 — Number of Reactors in Operation (as of 1 January 2006)

Note: There were 6 reactors in operation in Taiwan, China.

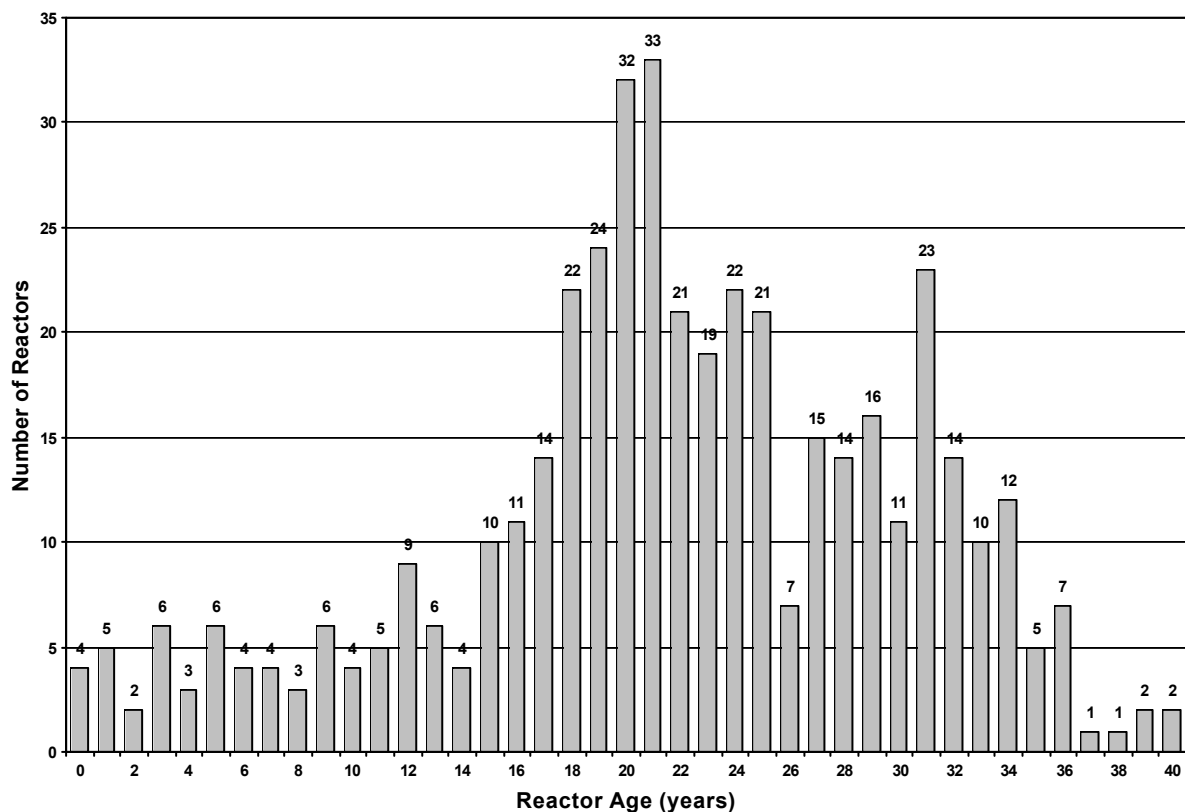


Figure 6 — Number of Reactors by Age (as of 1 January 2006)

HU-3 PAKS-3

Operator: PAKS RT. (PAKS NUCLEAR POWER PLANT LTD)
Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 433.0 MW(e)
Design Net Capacity: 410.0 MW(e)
Design Discharge Burnup: 37000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3038.7 GW(e).h
Energy Availability Factor: 80.1%
Load Factor: 80.1%
Operating Factor: 80.9%
Energy Unavailability Factor: 19.9%
Total Off-line Time: 1672 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	321.7	290.9	321.5	310.9	315.0	311.6	321.8	322.0	93.1	0.0	109.2	321.1	3038.7
EAF (%)	99.9	100.0	99.9	99.7	97.7	100.0	99.9	99.9	29.9	0.0	35.0	99.7	80.1
UCF (%)	99.9	100.0	99.9	99.7	97.7	100.0	99.9	99.9	29.9	0.0	35.0	99.7	80.1
LF (%)	99.9	100.0	99.8	99.9	97.8	100.0	99.9	99.9	29.9	0.0	35.0	99.7	80.1
OF (%)	100.0	100.0	99.9	100.1	99.5	100.0	100.0	100.0	30.1	0.0	41.7	100.0	80.9
EUF (%)	0.1	0.0	0.1	0.3	2.3	0.0	0.1	0.1	70.1	100.0	65.0	0.3	19.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.1	100.0	27.1	0.0	16.5
UCLF (%)	0.1	0.0	0.1	0.2	2.3	0.1	0.1	0.1	0.0	0.0	37.9	0.3	3.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE

5. Historical Summary

Date of Construction Start: 01 Oct 1979
Date of First Criticality: 15 Sep 1986
Date of Grid Connection: 28 Sep 1986
Date of Commercial Operation: 01 Dec 1986

Lifetime Generation: 62538.0 GW(e).h
Cumulative Energy Availability Factor: 86.0%
Cumulative Load Factor: 87.0%
Cumulative Unit Capability Factor: 86.5%
Cumulative Energy Unavailability Factor: 14.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	314.1	415.0	99.6	99.6	99.6	99.6	101.7	101.7	744	100.0
1987	3209.6	415.0	87.0	87.9	87.0	87.9	88.3	89.3	7648	87.3
1988	3300.9	415.0	88.1	88.0	88.1	88.0	90.6	89.9	7874	89.6
1989	3140.5	415.0	82.4	86.2	82.4	86.2	86.4	88.8	7343	83.8
1990	3273.4	435.0	85.6	86.1	85.6	86.1	85.9	88.0	7755	88.5
1991	3256.0	410.0	84.2	85.7	84.2	85.7	90.7	88.6	7580	86.5
1992	3587.3	433.0	87.7	86.0	87.5	86.0	94.3	89.5	7852	89.4
1993	3177.9	433.0	77.6	84.8	77.4	84.8	83.8	88.7	6950	79.3
1994	3376.0	433.0	88.6	85.3	88.5	85.2	89.0	88.7	7884	90.0
1995	3392.8	433.0	89.2	85.7	89.0	85.6	89.4	88.8	7911	90.3
1996	3429.4	433.0	90.9	86.3	90.8	86.2	90.2	89.0	8136	92.6
1997	3066.1	433.0	81.1	85.8	80.9	85.7	80.8	88.2	7136	81.5
1998	3294.1	433.0	88.0	86.0	88.0	85.9	86.8	88.1	7566	86.4
1999	3445.7	433.0	92.3	86.5	92.2	86.4	90.8	88.3	8058	92.0
2000	3517.3	433.0	93.0	86.9	92.8	86.8	92.5	88.6	8163	92.9
2001	3040.4	433.0	80.7	86.5	80.3	86.4	80.2	88.0	7159	81.7
2002	3256.8	433.0	90.5	86.8	90.4	86.6	85.9	87.9	7900	90.2
2003	3008.3	433.0	87.8	86.8	80.5	86.3	79.3	87.4	7746	88.4
2004	3333.3	433.0	87.6	86.9	87.6	86.4	87.6	87.4	7732	88.0
2005	3038.7	433.0	80.1	86.5	80.1	86.0	80.1	87.0	7088	80.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		343			122	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1442			835	140	
D. Inspection, maintenance or repair without refuelling				27		
E. Testing of plant systems or components				1	6	
Z. Others					12	
Subtotal	1442	343	0	863	280	0
Total		1785			1143	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	319	
12. Reactor I&C Systems		43
14. Safety Systems		0
15. Reactor Cooling Systems		0
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries	24	1
32. Feedwater and Main Steam System		24
42. Electrical Power Supply Systems		39
Total	343	107

HU-4 PAKS-4

Operator: PAKS RT. (PAKS NUCLEAR POWER PLANT LTD)
Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 444.0 MW(e)
Design Net Capacity: 410.0 MW(e)
Design Discharge Burnup: 37000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3548.8 GW(e).h
Energy Availability Factor: 91.2%
Load Factor: 91.2%
Operating Factor: 91.8%
Energy Unavailability Factor: 8.8%
Total Off-line Time: 714 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	329.8	297.9	329.6	319.1	59.5	252.9	330.0	330.3	319.7	330.8	319.5	329.7	3548.8
EAF (%)	99.8	99.8	99.9	99.8	18.0	79.1	99.9	100.0	100.0	100.0	99.9	99.8	91.2
UCF (%)	99.8	99.8	99.9	99.8	18.0	79.1	99.9	100.0	100.0	100.0	99.9	99.8	91.2
LF (%)	99.8	99.8	99.8	100.0	18.0	79.1	99.9	100.0	100.0	100.0	99.9	99.8	91.2
OF (%)	100.0	100.0	99.9	100.1	19.4	84.2	100.0	100.0	100.0	100.0	100.0	100.0	91.8
EUF (%)	0.2	0.2	0.1	0.2	82.0	20.9	0.1	0.0	0.0	0.0	0.1	0.2	8.8
PUF (%)	0.0	0.0	0.0	0.0	80.6	10.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
UCLF (%)	0.2	0.2	0.1	0.2	1.3	10.9	0.1	0.0	0.0	0.0	0.0	0.2	1.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE.

5. Historical Summary

Date of Construction Start: 01 Oct 1979 **Lifetime Generation:** 61700.2 GW(e).h
Date of First Criticality: 09 Aug 1987 **Cumulative Energy Availability Factor:** 87.7%
Date of Grid Connection: 16 Aug 1987 **Cumulative Load Factor:** 89.5%
Date of Commercial Operation: 01 Nov 1987 **Cumulative Unit Capability Factor:** 87.9%
Cumulative Energy Unavailability Factor: 12.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	618.3	415.0	100.0	100.0	100.0	100.0	101.8	101.8	1464	100.0
1988	3200.9	415.0	85.6	87.7	85.6	87.7	87.8	89.8	7564	86.1
1989	3425.3	415.0	89.7	88.6	89.7	88.6	94.2	91.8	7974	91.0
1990	3064.5	435.0	76.7	84.7	76.7	84.7	80.4	88.1	7253	82.8
1991	3343.0	410.0	86.5	85.2	86.5	85.2	93.1	89.3	7787	88.9
1992	3702.8	433.0	90.9	86.3	90.7	86.3	97.4	90.9	8082	92.0
1993	3537.2	430.0	87.5	86.5	87.0	86.4	93.9	91.4	7767	88.7
1994	2971.2	433.0	78.1	85.3	78.1	85.2	78.3	89.5	7019	80.1
1995	3443.8	433.0	90.8	86.0	90.4	85.9	90.8	89.7	8049	91.9
1996	3487.5	433.0	91.3	86.6	90.7	86.4	91.7	89.9	8087	92.1
1997	3487.1	433.0	92.0	87.1	91.6	86.9	91.9	90.1	8098	92.4
1998	3136.1	433.0	84.3	86.9	83.7	86.6	82.7	89.4	7389	84.3
1999	3464.0	433.0	89.3	87.1	89.3	86.8	91.3	89.6	8046	91.8
2000	3578.4	433.0	92.3	87.5	92.2	87.3	94.1	89.9	8116	92.4
2001	3471.7	444.0	90.1	87.7	90.0	87.5	89.3	89.9	7916	90.4
2002	3182.9	444.0	83.4	87.4	83.1	87.2	81.8	89.3	7287	83.2
2003	3607.6	444.0	93.0	87.7	92.8	87.5	92.8	89.6	8119	92.7
2004	3396.6	444.0	87.1	87.7	87.1	87.5	87.1	89.4	7878	89.7
2005	3548.8	444.0	91.2	87.9	91.2	87.7	91.2	89.5	8046	91.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					58	
C. Inspection, maintenance or repair combined with refuelling	672			823	30	
D. Inspection, maintenance or repair without refuelling				6		
E. Testing of plant systems or components				0		
H. Nuclear regulatory requirements				1		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				4		
L. Human factor related		71				
Z. Others					4	
Subtotal	672	71	0	834	92	0
Total		743			926	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		10
15. Reactor Cooling Systems		18
16. Steam generation systems		6
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		6
32. Feedwater and Main Steam System		6
41. Main Generator Systems		0
42. Electrical Power Supply Systems		1
Total	0	48

IN-13 KAIGA-1

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1183.6 GW(e).h
Energy Availability Factor: 66.5%
Load Factor: 66.9%
Operating Factor: 86.5%
Energy Unavailability Factor: 33.5%
Total Off-line Time: 1180 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	117.0	97.7	135.0	137.2	109.7	96.8	8.9	101.5	85.4	102.1	90.6	101.7	1183.6
EAF (%)	77.6	71.2	89.9	94.5	72.8	66.6	0.7	67.6	58.5	68.4	62.7	68.1	66.5
UCF (%)	88.0	80.5	97.3	100.0	93.3	92.9	24.7	100.0	90.6	100.0	100.0	100.0	88.9
LF (%)	77.8	72.0	89.9	94.4	73.0	66.5	5.9	67.5	58.7	67.8	62.3	67.6	66.9
OF (%)	88.2	80.7	97.7	100.1	80.1	94.4	17.2	99.9	87.6	99.9	92.9	100.0	86.5
EUF (%)	22.4	28.8	10.1	5.5	27.2	33.4	99.3	32.4	41.5	31.6	37.3	31.9	33.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	75.3	0.0	0.0	0.0	0.0	0.0	6.4
UCLF (%)	12.0	19.5	2.7	0.0	6.7	7.1	0.0	0.0	9.4	0.0	0.0	0.0	4.7
XUF (%)	10.4	9.3	7.4	5.5	20.5	26.3	24.0	32.4	32.1	31.6	37.3	31.9	22.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING THE YEAR UNIT OPERATED AT A REDUCED POWER LEVEL OF ABOUT 85% FULL POWER. UNIT ACHIEVED 100% AVAILABILITY FACTOR IN THE MONTHS OF APRIL, OCTOBER AND DECEMBER 2005.

5. Historical Summary

Date of Construction Start: 01 Sep 1989 **Lifetime Generation:** 6990.9 GW(e).h
Date of First Criticality: 26 Sep 2000 **Cumulative Energy Availability Factor:** 78.4%
Date of Grid Connection: 12 Oct 2000 **Cumulative Load Factor:** 76.5%
Date of Commercial Operation: 16 Nov 2000 **Cumulative Unit Capability Factor:** 88.5%
Cumulative Energy Unavailability Factor: 21.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	188.4	200.0	86.9	86.9	86.9	86.9	64.4	64.4	1037	70.8
2001	1241.1	200.0	75.8	77.4	70.4	72.8	70.8	69.9	6316	72.1
2002	1692.9	202.0	95.6	85.8	92.4	81.9	95.7	81.9	8082	92.3
2003	1336.0	202.0	87.5	86.4	83.4	82.4	75.5	79.8	7255	82.8
2004	1344.9	202.0	94.6	88.4	77.8	81.3	75.8	78.9	8181	93.1
2005	1183.6	202.0	88.9	88.5	66.5	78.4	66.9	76.5	7580	86.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		413			667	
B. Refuelling without a maintenance					30	
D. Inspection, maintenance or repair without refuelling	541					
E. Testing of plant systems or components				19		
J. Grid failure or grid unavailability			221			227
Z. Others					36	
Subtotal	541	413	221	19	733	227
Total		1175			979	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		50
12. Reactor I&C Systems		53
13. Reactor Auxiliary Systems		9
15. Reactor Cooling Systems		25
17. Safety I&C Systems (excluding reactor I&C)		35
21. Fuel Handling and Storage Facilities		83
31. Turbine and auxiliaries	175	78
32. Feedwater and Main Steam System		43
35. All other I&C Systems		0
41. Main Generator Systems	237	264
42. Electrical Power Supply Systems		6
XX. Miscellaneous Systems		16
Total	412	662

IN-14 KAIGA-2

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1509.4 GW(e).h
Energy Availability Factor: 82.9%
Load Factor: 85.3%
Operating Factor: 96.2%
Energy Unavailability Factor: 17.1%
Total Off-line Time: 332 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	134.9	108.2	139.2	137.8	125.3	133.0	142.1	113.5	138.0	126.7	108.2	102.5	1509.4
EAF (%)	89.8	79.2	92.7	94.8	82.5	91.5	95.0	74.6	67.5	84.4	74.1	68.4	82.9
UCF (%)	100.0	88.7	100.0	100.0	87.8	99.9	100.0	82.3	100.0	100.0	97.9	100.0	96.4
LF (%)	89.8	79.7	92.6	94.9	83.4	91.5	94.5	75.5	94.9	84.2	74.4	68.2	85.3
OF (%)	100.0	89.3	100.0	100.1	88.8	100.0	100.0	86.6	100.0	99.9	89.3	100.0	96.2
EUF (%)	10.2	20.8	7.3	5.2	17.5	8.5	5.0	25.4	32.5	15.6	25.9	31.6	17.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	11.4	0.0	0.0	12.2	0.2	0.0	17.7	0.0	0.0	2.1	0.0	3.6
XUF (%)	10.2	9.4	7.3	5.2	5.3	8.4	5.0	7.6	32.5	15.6	23.8	31.6	13.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT ACHIEVED 100% AVAILABILITY FACTOR IN THE MONTHS OF JANUARY, MARCH, APRIL, JUNE, JULY, SEPTEMBER, OCTOBER AND DECEMBER 2005. THIS UNIT OPERATED AT A REDUCED POWER LEVEL OF 95 % FULL POWER THROUGHOUT THE YEAR.

5. Historical Summary

Date of Construction Start: 01 Dec 1989 **Lifetime Generation:** 8166.9 GW(e).h
Date of First Criticality: 24 Sep 1999 **Cumulative Energy Availability Factor:** 80.4%
Date of Grid Connection: 02 Dec 1999 **Cumulative Load Factor:** 78.8%
Date of Commercial Operation: 16 Mar 2000 **Cumulative Unit Capability Factor:** 87.4%
Cumulative Energy Unavailability Factor: 19.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	1036.0	200.0	76.9	76.9	76.9	76.9	70.5	70.5	5428	73.9
2001	1308.6	200.0	82.1	79.7	74.2	75.5	74.7	72.8	6670	76.1
2002	1559.2	202.0	87.5	82.5	85.8	79.1	88.1	78.2	7455	85.1
2003	1413.0	202.0	88.7	84.1	86.9	81.2	79.9	78.7	7535	86.0
2004	1290.2	202.0	91.0	85.6	74.7	79.8	72.7	77.4	7732	88.0
2005	1509.4	202.0	96.4	87.4	82.9	80.4	85.3	78.8	8428	96.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		253			843	
D. Inspection, maintenance or repair without refuelling				276		
E. Testing of plant systems or components					4	
J. Grid failure or grid unavailability			76			246
Z. Others					9	
Subtotal	0	253	76	276	856	246
Total		329			1378	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		17
12. Reactor I&C Systems		177
13. Reactor Auxiliary Systems		16
15. Reactor Cooling Systems	82	67
17. Safety I&C Systems (excluding reactor I&C)		61
31. Turbine and auxiliaries		365
32. Feedwater and Main Steam System		60
41. Main Generator Systems	170	12
42. Electrical Power Supply Systems		64
Total	252	839

IN-9 KAKRAPAR-1

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1089.4 GW(e).h
Energy Availability Factor: 63.1%
Load Factor: 61.6%
Operating Factor: 91.0%
Energy Unavailability Factor: 36.9%
Total Off-line Time: 791 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	109.1	98.9	108.4	95.4	98.1	95.5	99.6	99.5	66.5	20.2	97.3	100.8	1089.4
EAF (%)	73.6	73.6	73.6	67.4	67.4	67.4	67.4	67.4	49.2	17.0	67.4	67.4	63.1
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	81.8	49.5	100.0	100.0	94.2
LF (%)	72.6	72.9	72.1	65.7	65.3	65.7	66.3	66.2	45.7	13.4	66.9	67.1	61.6
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	69.7	23.0	100.0	100.0	91.0
EUF (%)	26.4	26.4	26.4	32.6	32.6	32.6	32.6	32.6	50.8	83.0	32.6	32.6	36.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	48.4	0.0	0.0	5.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.2
XUF (%)	26.4	26.4	26.4	32.6	32.6	32.6	32.6	32.6	32.6	32.5	32.6	32.6	31.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING THE YEAR THERE WAS NO FORCED OUTAGE. UNIT OPERATED AT A REDUCED POWER LEVEL OF 75% FULL POWER FROM 1ST JANUARY TO 31ST MARCH AND AT 70% FULL POWER FROM 1ST APRIL TILL 31ST DECEMBER 2005.

5. Historical Summary

Date of Construction Start: 01 Dec 1984 **Lifetime Generation:** 14353.5 GW(e).h
Date of First Criticality: 03 Sep 1992 **Cumulative Energy Availability Factor:** 72.4%
Date of Grid Connection: 24 Nov 1992 **Cumulative Load Factor:** 69.2%
Date of Commercial Operation: 06 May 1993 **Cumulative Unit Capability Factor:** 77.8%
Cumulative Energy Unavailability Factor: 27.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993			Data not provided							
1994	130.3	194.0	13.2	13.2	12.0	12.0	7.7	7.7	1049	12.0
1995	1089.1	195.0	70.5	41.9	66.5	39.3	63.8	35.8	6225	71.1
1996	1295.8	195.0	84.6	56.2	75.7	51.5	75.7	49.1	7539	85.8
1997	906.7	195.0	58.4	56.8	52.9	51.8	53.1	50.1	5140	58.7
1998	1090.6	195.0	67.0	58.8	63.1	54.1	63.8	52.9	5987	68.3
1999	1407.1	195.0	87.7	63.6	85.1	59.2	82.4	57.8	7450	85.0
2000	1645.4	195.0	95.2	68.2	94.5	64.3	96.1	63.3	8445	96.1
2001	1517.5	195.0	86.5	70.4	86.5	67.1	88.8	66.5	7690	87.8
2002	1697.8	202.0	96.8	73.5	96.7	70.5	95.9	69.8	8488	96.9
2003	1419.4	202.0	87.5	74.9	81.9	71.6	80.2	70.9	7622	87.0
2004	1064.4	202.0	89.1	76.2	89.1	73.3	60.0	69.9	7416	84.4
2005	1089.4	202.0	94.2	77.8	63.1	72.4	61.6	69.2	7969	91.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					589	
D. Inspection, maintenance or repair without refuelling	791			1055		
E. Testing of plant systems or components				0	27	
G. Major back-fitting, refurbishment or upgrading activities without refuelling						27
H. Nuclear regulatory requirements					94	
J. Grid failure or grid unavailability						75
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					15	12
L. Human factor related					8	
Subtotal	791	0	0	1055	733	114
Total		791			1902	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		58
12. Reactor I&C Systems		58
13. Reactor Auxiliary Systems		20
15. Reactor Cooling Systems		134
16. Steam generation systems		16
17. Safety I&C Systems (excluding reactor I&C)		19
31. Turbine and auxiliaries		140
32. Feedwater and Main Steam System		19
35. All other I&C Systems		19
41. Main Generator Systems		16
42. Electrical Power Supply Systems		56
Total	0	555

IN-10 KAKRAPAR-2

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1255.0 GW(e).h
Energy Availability Factor: 72.3%
Load Factor: 70.9%
Operating Factor: 91.1%
Energy Unavailability Factor: 27.7%
Total Off-line Time: 781 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	11.4	114.6	131.6	127.3	131.8	128.5	131.9	100.4	97.4	80.5	98.4	101.2	1255.0
EAF (%)	11.1	86.2	89.1	88.9	89.1	89.1	89.1	67.4	67.4	57.1	67.4	67.4	72.3
UCF (%)	27.4	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	89.6	100.0	100.0	92.9
LF (%)	7.6	84.4	87.6	87.6	87.7	88.4	87.8	66.8	67.0	53.5	67.7	67.3	70.9
OF (%)	12.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	82.3	100.0	100.0	91.1
EUF (%)	88.9	13.8	10.9	11.1	10.9	10.9	10.9	32.6	32.6	42.9	32.6	32.6	27.7
PUF (%)	68.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
UCLF (%)	4.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	1.3
XUF (%)	16.3	13.8	10.9	10.9	10.9	10.9	10.9	32.6	32.6	32.5	32.6	32.6	20.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT OPERATED AT A REDUCED POWER LEVEL OF 85% FULL POWER FROM 1ST JANUARY TO 15TH FEBRUARY 2005, AT 90% FULL POWER FROM 16TH FEBRUARY TO 31ST JULY 2005, AND AT 70% FULL POWER FROM 1ST AUGUST TILL 31ST DECEMBER 2005.

5. Historical Summary

Date of Construction Start: 01 Apr 1985 **Lifetime Generation:** 14832.4 GW(e).h
Date of First Criticality: 08 Jan 1995 **Cumulative Energy Availability Factor:** 83.6%
Date of Grid Connection: 04 Mar 1995 **Cumulative Load Factor:** 80.7%
Date of Commercial Operation: 01 Sep 1995 **Cumulative Unit Capability Factor:** 87.8%
Cumulative Energy Unavailability Factor: 16.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1995	452.7	195.0	92.0	92.0	88.2	88.2	79.3	79.3	2513	85.8
1996	1326.8	195.0	86.3	87.7	77.5	80.2	77.5	77.9	7663	87.2
1997	1093.4	195.0	66.7	78.7	63.8	73.2	64.0	72.0	6139	70.1
1998	1291.6	195.0	78.7	78.7	76.6	74.2	75.6	73.1	6932	79.1
1999	1512.3	195.0	92.4	81.8	91.1	78.1	88.5	76.6	7955	90.8
2000	1489.9	195.0	85.8	82.6	85.6	79.5	87.0	78.6	7697	87.6
2001	1685.4	195.0	96.0	84.7	95.3	82.0	98.7	81.7	8500	97.0
2002	1597.1	202.0	89.5	85.4	89.2	83.0	90.3	82.9	7940	90.6
2003	1613.2	202.0	97.3	86.8	92.3	84.1	91.2	84.0	8515	97.2
2004	1142.0	202.0	90.9	87.3	90.9	84.9	64.4	81.8	7658	87.2
2005	1255.0	202.0	92.9	87.8	72.3	83.6	70.9	80.7	7979	91.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1995 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		183			501	
B. Refuelling without a maintenance					12	
D. Inspection, maintenance or repair without refuelling	607			355		
E. Testing of plant systems or components				12	31	
G. Major back-fitting, refurbishment or upgrading activities without refuelling						5
H. Nuclear regulatory requirements					81	
J. Grid failure or grid unavailability						41
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	
Z. Others					1	
Subtotal	607	183	0	367	631	46
Total		790			1044	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1995 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		37
13. Reactor Auxiliary Systems		13
14. Safety Systems		15
15. Reactor Cooling Systems		32
16. Steam generation systems	41	15
17. Safety I&C Systems (excluding reactor I&C)		49
31. Turbine and auxiliaries		133
32. Feedwater and Main Steam System		25
35. All other I&C Systems		5
41. Main Generator Systems	141	83
42. Electrical Power Supply Systems		76
Total	182	483

IN-5 MADRAS-1

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 155.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 0.0 GW(e).h
Energy Availability Factor: 0.0%
Load Factor: 0.0%
Operating Factor: 0.0%
Energy Unavailability Factor: 100.0%
Total Off-line Time: 8760 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EAF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
UCF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
PUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT REMAINED SHUTDOWN THROUGHOUT THE YEAR FOR EN-MASS COOLANT CHANNEL REPLACEMENT AND SYSTEM UPGRADATION WORK.

5. Historical Summary

Date of Construction Start: 01 Jan 1971 **Lifetime Generation:** 17458.7 GW(e).h
Date of First Criticality: 02 Jul 1983 **Cumulative Energy Availability Factor:** 54.3%
Date of Grid Connection: 23 Jul 1983 **Cumulative Load Factor:** 48.8%
Date of Commercial Operation: 27 Jan 1984 **Cumulative Unit Capability Factor:** 56.3%
Cumulative Energy Unavailability Factor: 45.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	1115.8	210.0	61.0	61.0	60.5	60.5	60.5	60.5	6333	72.1
1985	822.1	215.0	50.1	55.5	49.5	54.9	43.6	52.0	4827	55.1
1986	757.1	220.0	40.7	50.5	39.3	49.6	39.3	47.7	4629	52.8
1987	1100.0	220.0	61.0	53.2	57.1	51.5	57.1	50.1	6047	69.0
1988	1258.0	220.0	65.7	55.7	65.1	54.3	65.1	53.1	6691	76.2
1989	404.6	220.0	21.0	49.8	21.0	48.7	21.0	47.7	4350	49.7
1990	863.7	215.0	47.8	49.6	45.6	48.2	45.9	47.4	7320	83.6
1991	499.9	215.0	44.8	49.0	44.4	47.7	26.5	44.9	3546	40.5
1992	1082.6	194.0	87.3	52.8	84.6	51.5	63.5	46.7	7412	84.4
1993	538.9	194.0	46.3	52.2	43.9	50.8	31.7	45.4	3836	43.8
1994	809.0	194.0	72.5	53.9	66.6	52.1	47.6	45.5	5974	68.2
1995	1085.2	194.0	98.4	57.4	86.8	54.8	63.9	47.0	7584	86.6
1996	617.1	150.0	50.6	57.0	50.6	54.5	43.7	46.8	4348	49.5
1997	893.0	150.0	74.3	57.9	68.0	55.2	68.0	47.9	6451	73.6
1998	703.4	150.0	56.1	57.8	55.5	55.2	53.5	48.2	4858	55.5
1999	1182.4	150.0	92.5	59.5	92.5	57.0	90.0	50.2	8095	92.4
2000	667.8	150.0	50.9	59.1	50.9	56.8	50.7	50.2	4468	50.9
2001	1174.5	150.0	90.1	60.4	88.5	58.1	89.4	51.9	7751	88.5
2002	895.8	155.0	69.7	60.8	67.7	58.6	66.0	52.5	5885	67.2
2003	810.6	155.0	65.3	61.0	65.3	58.8	59.7	52.8	5421	61.9
2004	0.0	155.0	0.0	58.6	0.0	56.5	0.0	50.7	0	0.0
2005	0.0	155.0	0.0	56.3	0.0	54.3	0.0	48.8	0	0.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					995	8
B. Refuelling without a maintenance					8	
D. Inspection, maintenance or repair without refuelling				667		
E. Testing of plant systems or components				13	25	
F. Major back-fitting, refurbishment or upgrading activities with refuelling	8760					
G. Major back-fitting, refurbishment or upgrading activities without refuelling				399		
H. Nuclear regulatory requirements				721		
J. Grid failure or grid unavailability					9	119
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					23	
Subtotal	8760	0	0	1800	1060	127
Total	8760			2987		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		164
12. Reactor I&C Systems		85
13. Reactor Auxiliary Systems		24
15. Reactor Cooling Systems		76
16. Steam generation systems		32
31. Turbine and auxiliaries		108
32. Feedwater and Main Steam System		35
35. All other I&C Systems		2
41. Main Generator Systems		32
42. Electrical Power Supply Systems		392
XX. Miscellaneous Systems		6
Total	0	956

IN-6 MADRAS-2

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 155.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1475.8 GW(e).h
Energy Availability Factor: 91.3%
Load Factor: 108.7%
Operating Factor: 93.2%
Energy Unavailability Factor: 8.7%
Total Off-line Time: 595 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	111.5	113.3	142.4	138.9	143.7	90.4	124.4	140.1	135.5	110.3	122.4	102.9	1475.8
EAF (%)	82.6	87.0	95.8	96.5	96.9	61.0	87.9	100.0	100.0	87.2	100.0	99.6	91.3
UCF (%)	82.6	87.0	100.0	100.0	100.0	61.7	90.0	100.0	100.0	87.7	100.0	100.0	92.5
LF (%)	96.7	108.8	123.5	124.6	124.6	81.0	107.9	121.5	121.4	95.5	109.7	89.3	108.7
OF (%)	80.8	88.8	100.0	100.1	100.0	68.1	91.7	100.0	100.0	88.5	100.0	100.0	93.2
EUF (%)	17.4	13.0	4.2	3.5	3.1	39.0	12.1	0.0	0.0	12.8	0.0	0.4	8.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	17.4	13.0	0.0	0.0	0.0	38.3	10.0	0.0	0.0	12.3	0.0	0.0	7.5
XUF (%)	0.0	0.0	4.2	3.5	3.1	0.7	2.1	0.0	0.0	0.4	0.0	0.4	1.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING THE YEAR, THIS UNIT ACHIEVED AN AVAILABILITY FACTOR OF 93%.

5. Historical Summary

Date of Construction Start: 01 Oct 1972
Date of First Criticality: 12 Aug 1985
Date of Grid Connection: 20 Sep 1985
Date of Commercial Operation: 21 Mar 1986

Lifetime Generation: 17776.1 GW(e).h
Cumulative Energy Availability Factor: 60.6%
Cumulative Load Factor: 56.0%
Cumulative Unit Capability Factor: 62.5%
Cumulative Energy Unavailability Factor: 39.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	649.9	220.0	40.2	40.2	40.2	40.2	40.2	40.2	4409	60.0
1987	1066.0	220.0	62.5	52.3	55.5	48.5	55.3	48.4	6382	72.9
1988	642.0	220.0	33.2	45.6	33.2	43.1	33.2	43.1	3535	40.2
1989	438.2	220.0	22.7	39.6	22.7	37.8	22.7	37.8	4350	49.7
1990	1082.4	215.0	61.6	44.1	57.2	41.7	57.5	41.8	7726	88.2
1991	1083.0	215.0	87.2	51.4	86.6	49.3	57.5	44.4	7642	87.2
1992	665.2	194.0	55.2	51.9	54.2	50.0	39.0	43.7	4751	54.1
1993	950.3	205.0	80.2	55.3	77.1	53.3	52.9	44.8	6625	75.6
1994	1032.1	194.0	85.5	58.5	80.9	56.1	60.7	46.5	7071	80.7
1995	274.7	194.0	22.7	55.1	21.4	52.9	16.2	43.6	1871	21.4
1996	1061.9	150.0	84.7	57.3	82.2	55.0	75.1	45.9	7256	82.6
1997	958.2	150.0	75.6	58.4	72.4	56.1	72.9	47.6	6464	73.8
1998	1104.2	150.0	87.0	60.1	85.4	57.8	84.0	49.8	7478	85.4
1999	879.9	150.0	68.0	60.6	65.7	58.3	67.0	50.8	5755	65.7
2000	1273.4	150.0	95.7	62.4	94.6	60.2	96.6	53.2	8304	94.5
2001	1119.1	150.0	88.5	63.7	87.6	61.6	85.2	54.8	7671	87.6
2002	22.7	155.0	1.7	60.7	1.7	58.6	1.7	52.2	183	2.1
2003	589.1	155.0	40.0	59.7	40.0	57.7	43.4	51.8	3135	35.8
2004	1274.3	155.0	92.4	61.2	90.9	59.2	93.6	53.7	7970	90.7
2005	1475.8	155.0	92.5	62.5	91.3	60.6	108.7	56.0	8165	93.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		333			906	6
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling		229				
D. Inspection, maintenance or repair without refuelling				669		
E. Testing of plant systems or components				29	9	
G. Major back-fitting, refurbishment or upgrading activities without refuelling				641		
H. Nuclear regulatory requirements				161	6	
J. Grid failure or grid unavailability					4	107
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	18
Subtotal	0	562	0	1500	941	131
Total		562			2572	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		276
12. Reactor I&C Systems		61
13. Reactor Auxiliary Systems		11
14. Safety Systems		5
15. Reactor Cooling Systems	62	169
16. Steam generation systems		39
17. Safety I&C Systems (excluding reactor I&C)	59	
21. Fuel Handling and Storage Facilities		8
31. Turbine and auxiliaries	127	74
32. Feedwater and Main Steam System	84	28
35. All other I&C Systems		3
41. Main Generator Systems		54
42. Electrical Power Supply Systems		58
XX. Miscellaneous Systems		15
Total	332	801

IN-7 NARORA-1

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 15000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1064.8 GW(e).h
Energy Availability Factor: 62.4%
Load Factor: 60.2%
Operating Factor: 79.0%
Energy Unavailability Factor: 37.6%
Total Off-line Time: 1836 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	115.6	114.6	126.4	119.5	119.4	96.1	79.2	113.5	101.7	78.7	0.0	0.0	1064.8
EAF (%)	78.9	86.4	86.1	84.1	81.4	74.8	54.7	77.5	71.9	54.4	0.0	0.0	62.4
UCF (%)	94.6	100.0	100.0	100.0	100.0	95.7	77.0	100.0	100.0	100.0	0.0	0.0	80.5
LF (%)	76.9	84.4	84.1	82.3	79.4	66.1	52.7	75.5	69.9	52.3	0.0	0.0	60.2
OF (%)	93.0	100.0	100.0	100.1	100.0	85.8	70.7	100.0	100.0	99.9	0.0	0.0	79.0
EUF (%)	21.1	13.6	13.9	15.9	18.6	25.2	45.3	22.5	28.1	45.6	100.0	100.0	37.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	16.7
UCLF (%)	5.4	0.0	0.0	0.0	0.0	4.3	23.0	0.0	0.0	0.0	0.0	0.0	2.8
XUF (%)	15.7	13.6	13.9	15.9	18.6	20.9	22.3	22.5	28.1	45.6	0.0	0.0	18.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING THE YEAR UNIT ACHIEVED AVAILABILITY FACTOR OF 94.91%. UNIT IS UNDER PLANNED LONG SHUTDOWN FOR ENMASSE COOLANT CHANNEL REPLACEMENT.

5. Historical Summary

Date of Construction Start: 01 Dec 1976 **Lifetime Generation:** 16075.0 GW(e).h
Date of First Criticality: 12 Mar 1989 **Cumulative Energy Availability Factor:** 63.9%
Date of Grid Connection: 29 Jul 1989 **Cumulative Load Factor:** 60.8%
Date of Commercial Operation: 01 Jan 1991 **Cumulative Unit Capability Factor:** 69.1%
Cumulative Energy Unavailability Factor: 36.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1991	449.3	210.0	42.8	42.8	42.3	42.3	24.4	24.4	4331	49.4
1992	742.7	200.0	42.8	42.8	42.3	42.3	42.3	33.1	5514	62.8
1993	339.6	200.0	19.4	35.1	19.4	34.8	19.4	28.6	2032	23.2
1994	0.0	200.0	0.0	26.5	0.0	26.2	0.0	21.6	0	0.0
1995	944.4	200.0	68.3	34.7	66.0	34.1	53.9	28.0	5740	65.5
1996	1162.3	200.0	76.9	41.7	66.2	39.4	66.2	34.3	6407	72.9
1997	1585.2	200.0	92.8	49.0	89.3	46.5	90.5	42.3	8128	92.8
1998	1485.6	200.0	90.8	54.2	83.9	51.1	84.8	47.5	7986	91.2
1999	1128.6	200.0	76.8	56.7	76.5	53.9	64.4	49.4	6703	76.5
2000	1386.3	200.0	87.2	59.7	83.4	56.8	78.9	52.3	7452	84.8
2001	1563.0	200.0	91.9	62.6	89.2	59.8	89.2	55.7	8157	93.1
2002	1574.5	202.0	89.3	64.9	88.0	62.1	89.0	58.5	7912	90.3
2003	1528.2	202.0	95.1	67.2	86.0	64.0	86.4	60.6	8254	94.2
2004	1120.6	202.0	82.5	68.3	64.8	64.0	63.2	60.8	6860	78.1
2005	1064.8	202.0	80.5	69.1	62.4	63.9	60.2	60.8	6924	79.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1991 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		309			1144	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				131		
D. Inspection, maintenance or repair without refuelling				861		
E. Testing of plant systems or components				31	24	
F. Major back-fitting, refurbishment or upgrading activities with refuelling	1464					
G. Major back-fitting, refurbishment or upgrading activities without refuelling					23	
H. Nuclear regulatory requirements				128	13	
J. Grid failure or grid unavailability			62			75
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						16
Z. Others						4
Subtotal	1464	309	62	1151	1206	95
Total		1835			2452	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1991 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		33
12. Reactor I&C Systems		78
13. Reactor Auxiliary Systems		30
15. Reactor Cooling Systems	218	131
16. Steam generation systems		12
17. Safety I&C Systems (excluding reactor I&C)		39
21. Fuel Handling and Storage Facilities		3
31. Turbine and auxiliaries		573
32. Feedwater and Main Steam System		26
33. Circulating Water System		3
41. Main Generator Systems		98
42. Electrical Power Supply Systems	91	71
XX. Miscellaneous Systems		3
Total	309	1100

IN-8 NARORA-2

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 15000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1222.9 GW(e).h
Energy Availability Factor: 71.5%
Load Factor: 69.1%
Operating Factor: 90.3%
Energy Unavailability Factor: 28.5%
Total Off-line Time: 853 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	124.9	114.1	125.6	108.7	16.5	85.1	113.7	96.8	105.2	109.7	108.5	114.3	1222.9
EAF (%)	85.1	86.0	85.5	76.7	13.0	65.4	77.6	66.4	74.3	75.0	76.6	78.1	71.5
UCF (%)	100.0	100.0	100.0	100.0	38.7	90.6	100.0	90.9	100.0	100.0	100.0	100.0	93.2
LF (%)	83.1	84.1	83.6	74.8	11.0	58.5	75.7	64.4	72.3	72.9	74.6	76.1	69.1
OF (%)	100.0	100.0	100.0	100.1	16.5	80.6	100.0	87.6	100.0	99.9	100.0	100.0	90.3
EUF (%)	14.9	14.0	14.5	23.3	87.0	34.6	22.4	33.6	25.7	25.0	23.4	21.9	28.5
PUF (%)	0.0	0.0	0.0	0.0	61.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	9.4	0.0	9.1	0.0	0.0	0.0	0.0	1.5
XUF (%)	14.9	14.0	14.5	23.3	25.7	25.3	22.4	24.5	25.7	25.0	23.4	21.9	21.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING THE YEAR UNIT ACHIEVED AN AVAILABILITY FACTOR OF 90.27%.

5. Historical Summary

Date of Construction Start: 01 Nov 1977 **Lifetime Generation:** 16255.3 GW(e).h
Date of First Criticality: 24 Oct 1991 **Cumulative Energy Availability Factor:** 69.4%
Date of Grid Connection: 05 Jan 1992 **Cumulative Load Factor:** 68.5%
Date of Commercial Operation: 01 Jul 1992 **Cumulative Unit Capability Factor:** 75.9%
Cumulative Energy Unavailability Factor: 30.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1992	567.0	200.0	65.2	65.2	64.2	64.2	64.2	64.2	3553	80.5
1993	83.3	200.0	4.8	25.1	4.8	24.7	4.8	24.7	548	6.3
1994	761.7	200.0	53.1	36.3	43.5	32.2	43.5	32.2	5494	62.7
1995	1036.8	200.0	68.6	45.5	66.1	41.9	59.2	39.9	5798	66.2
1996	1227.5	200.0	79.4	53.0	69.9	48.1	69.9	46.6	6572	74.8
1997	1568.7	200.0	91.4	60.0	89.2	55.6	89.5	54.4	8121	92.7
1998	1333.2	200.0	80.1	63.1	75.1	58.6	76.1	57.7	6829	78.0
1999	1425.9	200.0	87.0	66.3	85.8	62.2	81.4	60.9	7468	85.3
2000	1340.8	200.0	80.6	68.0	79.9	64.3	76.3	62.7	7182	81.8
2001	1343.0	200.0	75.4	68.7	74.5	65.4	76.7	64.2	6897	78.7
2002	1692.8	202.0	95.7	71.3	94.8	68.2	95.7	67.2	8416	96.1
2003	1287.1	202.0	85.4	72.6	70.7	68.4	72.7	67.7	7458	85.1
2004	1364.6	202.0	96.7	74.5	78.9	69.2	76.9	68.4	8447	96.2
2005	1222.9	202.0	93.2	75.9	71.5	69.4	69.1	68.5	7907	90.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1992 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		184			606	
B. Refuelling without a maintenance					12	
C. Inspection, maintenance or repair combined with refuelling				91		
D. Inspection, maintenance or repair without refuelling	621			900		
E. Testing of plant systems or components				12	28	
H. Nuclear regulatory requirements				17	32	
J. Grid failure or grid unavailability			48		3	118
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					7	
Subtotal	621	184	48	1020	688	118
Total		853			1826	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1992 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		55
12. Reactor I&C Systems		44
13. Reactor Auxiliary Systems		6
15. Reactor Cooling Systems		71
16. Steam generation systems		3
17. Safety I&C Systems (excluding reactor I&C)		17
21. Fuel Handling and Storage Facilities	144	
31. Turbine and auxiliaries		226
32. Feedwater and Main Steam System		31
41. Main Generator Systems		31
42. Electrical Power Supply Systems	40	86
Total	184	570

IN-3 RAJASTHAN-1

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: AECL (ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 90.0 MW(e)
Design Net Capacity: 207.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 0.0 GW(e).h
Energy Availability Factor: 0.0%
Load Factor: 0.0%
Operating Factor: 0.0%
Energy Unavailability Factor: 100.0%
Total Off-line Time: 8760 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EAF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
UCF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
PUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT CONTINUED TO REMAIN SHUTDOWN THROUGHOUT THE YEAR. THIS UNIT HAD BEEN DERATED TO 90 MWE W.E.F. JANUARY 1, 1992.

5. Historical Summary

Date of Construction Start: 01 Aug 1965
Date of First Criticality: 11 Aug 1972
Date of Grid Connection: 30 Nov 1972
Date of Commercial Operation: 16 Dec 1973

Lifetime Generation: 10138.4 GW(e).h
Cumulative Energy Availability Factor: 25.6%
Cumulative Load Factor: 22.0%
Cumulative Unit Capability Factor: 29.2%
Cumulative Energy Unavailability Factor: 74.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	55.0	145.0	90.6	90.6	90.6	90.6	51.0	51.0	553	74.3
1974	667.6	207.0	100.0	99.5	36.8	39.8	36.8	37.6	4690	53.5
1975	599.7	206.0	33.2	67.4	33.2	36.6	33.2	35.5	3817	43.6
1976	801.9	206.0	44.3	59.8	44.3	39.1	44.3	38.4	5728	65.2
1977	456.9	206.0	26.4	51.6	26.4	36.0	25.3	35.2	3312	37.8
1978	153.2	206.0	8.5	43.1	8.5	30.6	8.5	29.9	1537	17.5
1979	1147.3	206.0	63.6	46.5	63.6	36.0	63.6	35.5	7217	82.4
1980	953.1	206.0	52.7	47.4	52.7	38.4	52.7	37.9	6346	72.2
1981	441.5	220.0	22.9	44.2	22.9	36.4	22.9	35.9	3732	42.6
1982	38.2	206.0	2.1	39.6	2.1	32.6	2.1	32.2	496	5.7
1983	0.0	202.0	0.0	35.7	0.0	29.4	0.0	29.1	0	0.0
1984	0.0	180.0	0.0	32.9	0.0	27.1	0.0	26.8	0	0.0
1985	226.2	204.0	12.7	31.2	12.7	25.9	12.7	25.6	1914	21.8
1986	0.0	207.0	0.0	28.8	0.0	23.9	0.0	23.6	0	0.0
1987	169.9	207.0	16.6	27.9	9.4	22.9	9.4	22.6	2555	29.2
1988	376.5	207.0	25.3	27.7	20.7	22.7	20.7	22.5	5793	65.9
1989	312.8	207.0	18.7	27.2	17.3	22.4	17.3	22.2	4779	54.6
1990	364.1	192.0	22.3	26.9	19.4	22.2	21.6	22.1	5789	66.1
1991	197.5	192.0	74.8	29.4	74.8	25.0	11.7	21.6	2858	32.6
1992	57.7	84.0	12.2	29.0	12.2	24.7	7.8	21.3	1070	12.2
1993	167.6	84.0	22.8	28.9	22.8	24.6	22.8	21.3	2435	27.8
1994	2.9	84.0	2.2	28.3	2.2	24.1	0.4	20.9	195	2.2
1995	0.0	84.0	0.0	27.7	0.0	23.6	0.0	20.4	0	0.0
1996	0.0	84.0	0.0	27.2	0.0	23.2	0.0	20.0	0	0.0
1997	264.6	84.0	39.2	27.4	31.9	23.3	36.0	20.3	2792	31.9
1998	567.4	134.0	63.8	28.5	62.2	24.5	48.3	21.2	5448	62.2
1999	795.0	134.0	81.0	30.1	73.6	26.0	67.7	22.6	6443	73.6
2000	681.3	134.0	57.5	30.9	57.0	26.9	57.9	23.6	5008	57.0
2001	173.2	134.0	10.5	30.3	10.0	26.4	14.8	23.4	860	9.8
2002	0.0	90.0	0.0	29.8	0.0	25.9	0.0	22.9	0	0.0
2003	0.0	134.0	0.0	29.0	0.0	25.2	0.0	22.3	0	0.0
2004	303.8	134.0	56.8	29.7	56.8	26.1	25.8	22.4	3785	43.1
2005	0.0	90.0	0.0	29.2	0.0	25.6	0.0	22.0	0	0.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				150	2455	
B. Refuelling without a maintenance					37	
D. Inspection, maintenance or repair without refuelling	8760			2443		
E. Testing of plant systems or components					6	
G. Major back-fitting, refurbishment or upgrading activities without refuelling				37	21	
H. Nuclear regulatory requirements				313		
J. Grid failure or grid unavailability					2	108
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				16		48
Subtotal	8760	0	0	2959	2521	156
Total	8760			5636		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1215
12. Reactor I&C Systems		169
13. Reactor Auxiliary Systems		55
14. Safety Systems		32
15. Reactor Cooling Systems		420
16. Steam generation systems		6
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		461
32. Feedwater and Main Steam System		10
41. Main Generator Systems		99
42. Electrical Power Supply Systems		108
XX. Miscellaneous Systems		7
Total	0	2583

IN-4 RAJASTHAN-2

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: AECL/DAE (ATOMIC ENERGY OF CANADA Ltda AND DEPARTMENT OF ATOMIC ENERGY(INDIA))

1. Station Details

Type: PHWR
Net Reference Unit Power
at the beginning of 2005: 187.0 MW(e)
Design Net Capacity: 207.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1134.8 GW(e).h
Energy Availability Factor: 80.0%
Load Factor: 69.3%
Operating Factor: 86.5%
Energy Unavailability Factor: 20.0%
Total Off-line Time: 1179 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	85.7	98.8	85.3	82.3	72.8	91.6	95.4	103.7	106.7	106.0	100.3	106.2	1134.8
EAF (%)	67.2	86.6	69.1	68.3	59.2	76.1	76.7	90.8	93.5	93.8	91.0	88.8	80.0
UCF (%)	67.2	86.6	69.1	68.3	59.2	76.1	76.7	90.8	100.0	93.8	91.0	88.8	80.5
LF (%)	61.6	78.6	61.3	61.2	52.3	68.0	68.6	74.5	79.3	76.1	74.5	76.3	69.3
OF (%)	76.2	93.8	73.4	75.0	65.7	85.4	86.0	91.3	92.8	99.9	100.0	100.0	86.5
EUf (%)	32.8	13.4	30.9	31.7	40.8	23.9	23.3	9.2	6.5	6.2	9.0	11.2	20.0
PUf (%)	32.8	7.2	4.5	25.5	6.7	23.9	6.1	4.2	0.0	6.2	9.0	11.2	11.4
UCLF (%)	0.0	6.3	26.4	6.1	34.1	0.0	17.2	5.1	0.0	0.0	0.0	0.0	8.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING THE YEAR THIS UNIT ACHIEVED AN ANNUAL CAPACITY FACTOR AND ANNUAL AVAILABILITY FACTOR OF 89.65% AND 86.54% RESPECTIVELY.

5. Historical Summary

Date of Construction Start: 01 Apr 1968 **Lifetime Generation:** 22292.4 GW(e).h
Date of First Criticality: 08 Oct 1980 **Cumulative Energy Availability Factor:** 56.6%
Date of Grid Connection: 01 Nov 1980 **Cumulative Load Factor:** 53.2%
Date of Commercial Operation: 01 Apr 1981 **Cumulative Unit Capability Factor:** 59.9%
Cumulative Energy Unavailability Factor: 43.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	551.9	220.0	38.4	38.4	38.4	38.4	38.0	38.0	5316	80.5
1982	372.9	206.0	20.7	28.6	20.7	28.6	20.7	28.4	3651	41.7
1983	957.2	202.0	54.1	37.6	54.1	37.6	54.1	37.4	6673	76.2
1984	908.7	185.0	56.1	42.1	49.1	40.4	55.9	42.0	5870	66.8
1985	959.9	184.0	73.3	48.2	71.3	46.4	59.6	45.4	6243	71.3
1986	1080.5	207.0	65.2	51.3	59.6	48.8	59.6	47.9	6743	77.0
1987	1031.1	207.0	63.2	53.1	56.9	50.0	56.9	49.3	6277	71.7
1988	1234.0	207.0	70.1	55.3	67.9	52.4	67.9	51.8	7935	90.3
1989	1084.2	207.0	60.5	55.9	59.8	53.3	59.8	52.7	6980	79.7
1990	1173.8	192.0	68.7	57.2	68.7	54.8	69.8	54.4	7151	81.6
1991	895.1	192.0	62.9	57.7	62.9	55.5	53.2	54.3	5416	61.8
1992	874.4	184.0	90.3	60.3	58.1	55.7	54.1	54.3	5297	60.3
1993	1153.5	184.0	74.2	61.3	71.1	56.8	71.6	55.5	6983	79.7
1994	519.4	184.0	39.4	59.8	32.2	55.2	32.2	53.9	3244	37.0
1995	0.0	184.0	0.0	56.0	0.0	51.6	0.0	50.5	0	0.0
1996	0.0	184.0	0.0	52.6	0.0	48.5	0.0	47.5	0	0.0
1997	0.0	184.0	0.0	49.7	0.0	45.8	0.0	44.8	0	0.0
1998	512.4	184.0	49.6	49.7	49.6	46.0	31.8	44.1	3728	42.6
1999	1162.3	184.0	87.6	51.6	83.1	47.9	72.1	45.5	7264	82.9
2000	1308.1	184.0	92.3	53.6	92.3	50.0	80.9	47.2	8104	92.3
2001	1348.3	184.0	86.9	55.1	85.5	51.7	83.6	48.9	7486	85.5
2002	1430.9	187.0	90.7	56.7	89.0	53.3	87.3	50.6	7768	88.7
2003	1391.5	187.0	92.3	58.2	84.7	54.7	84.9	52.1	8018	91.5
2004	1047.7	187.0	77.8	59.0	77.8	55.6	63.8	52.6	6806	77.5
2005	1134.8	187.0	80.5	59.9	80.0	56.6	69.3	53.2	7581	86.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		708			812	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling				111		
D. Inspection, maintenance or repair without refuelling	419			1521		
E. Testing of plant systems or components					14	
G. Major back-fitting, refurbishment or upgrading activities without refuelling						16
H. Nuclear regulatory requirements				141	2	2
J. Grid failure or grid unavailability		52			27	189
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				51	22	2
Z. Others					25	2
Subtotal	419	760	0	1824	908	211
Total		1179			2943	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		23
12. Reactor I&C Systems	240	150
13. Reactor Auxiliary Systems		16
14. Safety Systems		29
15. Reactor Cooling Systems	362	84
16. Steam generation systems	106	9
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		275
32. Feedwater and Main Steam System		44
35. All other I&C Systems		16
41. Main Generator Systems		71
42. Electrical Power Supply Systems		59
XX. Miscellaneous Systems		12
Total	708	789

IN-11 RAJASTHAN-3

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1487.9 GW(e).h
Energy Availability Factor: 84.6%
Load Factor: 84.1%
Operating Factor: 98.0%
Energy Unavailability Factor: 15.4%
Total Off-line Time: 179 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	128.0	122.1	135.0	129.0	134.4	113.1	130.3	128.5	125.2	101.4	118.9	122.2	1487.9
EAF (%)	80.4	85.8	85.5	86.9	89.1	82.0	89.1	89.1	89.1	70.6	83.7	83.7	84.6
UCF (%)	100.0	100.0	99.7	100.0	100.0	92.9	100.0	100.0	100.0	86.9	100.0	100.0	98.3
LF (%)	85.2	89.9	89.8	88.8	89.4	77.8	86.7	85.5	86.1	67.4	81.8	81.3	84.1
OF (%)	100.0	100.0	99.6	100.1	100.0	91.9	100.0	100.0	100.0	84.0	100.0	100.0	98.0
EUF (%)	19.6	14.2	14.5	13.1	10.9	18.0	10.9	10.9	10.9	29.4	16.3	16.3	15.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.3	0.0	0.0	7.1	0.0	0.0	0.0	13.1	0.0	0.0	1.7
XUF (%)	19.6	14.2	14.2	13.1	10.9	10.9	10.9	10.9	10.9	16.3	16.3	16.3	13.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT ACHIEVED AN AVAILABILITY FACTOR OF 97.96%. IN NINE MONTHS VIZ. JANUARY, FEBRUARY, APRIL, MAY, JULY, AUGUST, SEPTEMBER, NOVEMBER AND DECEMBER, IT ACHIEVED AN AVAILABILITY FACTOR OF 100%.

5. Historical Summary

Date of Construction Start: 01 Feb 1990 **Lifetime Generation:** 7768.1 GW(e).h
Date of First Criticality: 24 Dec 1999 **Cumulative Energy Availability Factor:** 79.7%
Date of Grid Connection: 10 Mar 2000 **Cumulative Load Factor:** 77.8%
Date of Commercial Operation: 01 Jun 2000 **Cumulative Unit Capability Factor:** 88.5%
Cumulative Energy Unavailability Factor: 20.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	797.7	200.0	76.4	76.4	76.4	76.4	77.6	77.6	3986	77.6
2001	1366.1	200.0	84.9	81.7	83.6	80.9	78.0	77.8	7317	83.5
2002	1317.9	202.0	81.2	81.5	75.5	78.8	74.5	76.5	6715	76.7
2003	1442.1	202.0	95.3	85.4	84.5	80.4	81.5	77.9	8285	94.6
2004	1260.3	202.0	90.0	86.4	72.3	78.6	71.0	76.4	7711	87.8
2005	1487.9	202.0	98.3	88.5	84.6	79.7	84.1	77.8	8581	98.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		18			603	
D. Inspection, maintenance or repair without refuelling				343		
E. Testing of plant systems or components		160			33	
J. Grid failure or grid unavailability						104
L. Human factor related					20	
Subtotal	0	178	0	343	656	104
Total		178			1103	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		187
15. Reactor Cooling Systems		44
16. Steam generation systems		68
31. Turbine and auxiliaries		101
32. Feedwater and Main Steam System		79
41. Main Generator Systems	18	48
42. Electrical Power Supply Systems		37
Total	18	564

IN-12 RAJASTHAN-4

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 202.0 MW(e)
Design Net Capacity: 220.0 MW(e)
Design Discharge Burnup: 6700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1461.9 GW(e).h
Energy Availability Factor: 82.3%
Load Factor: 82.6%
Operating Factor: 92.2%
Energy Unavailability Factor: 17.7%
Total Off-line Time: 686 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	145.0	132.3	135.4	26.9	133.7	132.2	136.9	139.3	135.3	124.8	119.0	101.1	1461.9
EAF (%)	91.8	93.5	86.1	21.6	88.6	92.2	93.0	93.5	93.5	83.7	82.5	67.3	82.3
UCF (%)	99.5	100.0	92.6	28.2	95.1	98.7	99.5	100.0	100.0	100.0	98.8	100.0	92.8
LF (%)	96.5	97.5	90.1	18.5	89.0	90.9	91.1	92.7	93.0	82.9	81.8	67.3	82.6
OF (%)	99.5	100.0	91.9	22.4	94.8	98.6	99.5	100.0	100.0	99.9	98.6	100.0	92.2
EUF (%)	8.2	6.5	13.9	78.4	11.4	7.8	7.0	6.5	6.5	16.3	17.5	32.7	17.7
PUF (%)	0.0	0.0	0.2	70.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
UCLF (%)	0.5	0.0	7.2	1.5	4.9	1.3	0.5	0.0	0.0	0.0	1.2	0.0	1.4
XUF (%)	7.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	16.3	16.3	32.7	10.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

IN 2005, THIS UNIT ACHIEVED AN AVAILABILITY FACTOR OF 92.16%. IN FIVE MONTHS VIZ. FEBRUARY, AUGUST, SEPTEMBER, OCTOBER AND DECEMBER IT ACHIEVED AN AVAILABILITY FACTOR OF 100%.

5. Historical Summary

Date of Construction Start: 01 Oct 1990 **Lifetime Generation:** 7157.7 GW(e).h
Date of First Criticality: 03 Nov 2000 **Cumulative Energy Availability Factor:** 80.0%
Date of Grid Connection: 17 Nov 2000 **Cumulative Load Factor:** 79.6%
Date of Commercial Operation: 23 Dec 2000 **Cumulative Unit Capability Factor:** 90.3%
Cumulative Energy Unavailability Factor: 20.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	54.9	200.0	54.8	54.8	54.8	54.8	36.9	36.9	410	55.1
2001	1200.8	200.0	82.0	79.9	71.0	69.7	68.5	66.1	6214	70.9
2002	1671.5	202.0	96.5	87.9	94.3	81.6	94.5	79.8	8255	94.2
2003	1318.2	202.0	87.6	87.8	74.8	79.4	74.5	78.0	7633	87.1
2004	1447.7	202.0	95.8	89.7	79.5	79.4	81.6	78.9	8329	94.8
2005	1461.9	202.0	92.8	90.3	82.3	80.0	82.6	79.6	8074	92.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		136			269	
D. Inspection, maintenance or repair without refuelling	549			113		
J. Grid failure or grid unavailability						175
Subtotal	549	136	0	113	269	175
Total		685			557	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		20
12. Reactor I&C Systems		67
15. Reactor Cooling Systems		25
16. Steam generation systems	108	13
21. Fuel Handling and Storage Facilities		29
31. Turbine and auxiliaries	24	12
32. Feedwater and Main Steam System		32
41. Main Generator Systems	4	13
42. Electrical Power Supply Systems		54
Total	136	265

IN-1 TARAPUR-1

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 150.0 MW(e)
Design Net Capacity: 200.0 MW(e)
Design Discharge Burnup: 21000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 965.0 GW(e).h
Energy Availability Factor: 74.2%
Load Factor: 73.4%
Operating Factor: 74.8%
Energy Unavailability Factor: 25.8%
Total Off-line Time: 2208 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	113.3	101.8	109.2	103.8	108.3	104.9	107.2	109.8	106.8	0.0	0.0	0.0	965.0
EAF (%)	100.0	100.0	98.3	98.3	99.3	99.0	97.6	100.0	100.0	0.1	0.0	0.0	74.2
UCF (%)	100.0	100.0	98.3	98.8	99.3	99.0	97.6	100.0	100.0	0.1	0.0	0.0	74.2
LF (%)	101.5	101.0	97.9	96.3	97.1	97.1	96.0	98.4	98.8	0.0	0.0	0.0	73.4
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	74.8
EUF (%)	0.0	0.0	1.7	1.7	0.7	1.0	2.4	0.0	0.0	99.9	100.0	100.0	25.8
PUF (%)	0.0	0.0	1.7	1.2	0.7	1.0	2.4	0.0	0.0	99.9	100.0	100.0	25.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT ACHIEVED A NEW RECORD BY REGISTERING LONGEST CONTINUOUS OPERATION OF 287 DAYS. THIS UNIT WAS SHUTDOWN IN OCTOBER FOR TAKING UP LIFE EXTENSION ACTIVITIES.

5. Historical Summary

Date of Construction Start:	01 Oct 1964	Lifetime Generation:	32670.6 GW(e).h
Date of First Criticality:	01 Feb 1969	Cumulative Energy Availability Factor:	67.9%
Date of Grid Connection:	01 Apr 1969	Cumulative Load Factor:	55.0%
Date of Commercial Operation:	28 Oct 1969	Cumulative Unit Capability Factor:	76.8%
		Cumulative Energy Unavailability Factor:	32.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1969	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1971	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1972	652.4	210.0	100.0	100.0	35.4	80.1	35.4	10.9	5071	57.7
1973	757.1	210.0	41.2	86.2	41.2	70.9	41.2	18.0	5181	59.1
1974	832.6	156.0	100.0	88.2	60.5	69.4	60.9	24.4	6938	79.2
1975	926.6	200.0	53.0	82.6	53.0	66.8	52.9	28.9	5825	66.5
1976	1156.6	210.0	62.7	79.7	62.7	66.2	62.7	33.8	7617	86.7
1977	994.8	210.0	100.0	82.3	54.1	64.7	54.1	36.4	6675	76.2
1978	941.0	210.0	100.0	84.2	51.2	63.1	51.2	38.0	6427	73.4
1979	965.9	210.0	52.5	81.1	52.5	62.1	52.5	39.5	7143	81.5
1980	893.9	210.0	67.8	79.8	67.8	62.6	48.5	40.3	5955	67.8
1981	793.8	210.0	68.4	78.9	68.4	63.1	43.2	40.5	5986	68.3
1982	1112.2	210.0	89.9	79.7	89.9	65.2	60.5	42.1	7872	89.9
1983	730.0	200.0	100.0	81.1	41.7	63.5	41.7	42.0	5396	61.6
1984	826.9	200.0	90.3	81.7	89.6	65.2	47.1	42.4	7688	87.5
1985	790.9	160.0	64.6	80.8	64.6	65.2	53.2	42.9	6194	70.7
1986	1090.2	150.0	84.6	81.0	83.0	66.0	83.0	44.7	7954	90.8
1987	193.4	150.0	14.7	78.2	14.7	63.8	14.7	43.4	1533	17.5
1988	1085.5	150.0	83.8	78.5	82.4	64.6	82.4	45.0	8010	91.2
1989	800.3	150.0	61.6	77.8	61.4	64.4	60.9	45.6	6177	70.5
1990	1045.2	150.0	80.5	77.9	80.2	65.0	79.5	46.9	7772	88.7
1991	566.9	150.0	82.4	78.1	80.4	65.6	43.1	46.7	6536	74.6
1992	762.3	150.0	58.7	77.4	57.9	65.3	57.9	47.1	5487	62.5
1993	967.7	150.0	76.9	77.4	74.4	65.6	73.6	48.0	7291	83.2
1994	280.6	150.0	22.9	75.6	21.4	64.2	21.4	47.1	2450	28.0
1995	1092.3	150.0	91.0	76.1	83.1	64.8	83.1	48.3	7893	90.1
1996	403.3	150.0	32.3	74.8	30.6	63.7	30.6	47.7	3872	44.1
1997	985.5	150.0	75.9	74.8	75.0	64.1	75.0	48.5	7347	83.9
1998	1162.6	150.0	92.8	75.3	91.6	64.9	88.5	49.7	8283	94.6
1999	852.6	150.0	67.9	75.1	67.0	64.9	64.9	50.1	6405	73.1
2000	1181.1	150.0	91.6	75.6	91.6	65.6	89.6	51.2	8337	94.9
2001	1084.2	150.0	84.3	75.8	83.6	66.1	82.5	52.0	7635	87.2
2002	1180.7	150.0	93.8	76.2	92.0	66.8	89.9	53.0	8394	95.8
2003	1100.4	150.0	86.9	76.5	85.2	67.2	83.7	53.7	7901	90.2
2004	1148.6	150.0	90.9	76.9	89.0	67.8	87.2	54.6	8111	92.3
2005	965.0	150.0	74.2	76.8	74.2	67.9	73.4	55.0	6552	74.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					356	1
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling				1403	21	
D. Inspection, maintenance or repair without refuelling				218		
E. Testing of plant systems or components				6		
G. Major back-fitting, refurbishment or upgrading activities without refuelling	2196					
J. Grid failure or grid unavailability					0	50
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	2	4
Subtotal	2196	0	0	1627	379	55
Total	2196			2061		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		1
14. Safety Systems		2
15. Reactor Cooling Systems		59
16. Steam generation systems		19
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		169
32. Feedwater and Main Steam System		51
41. Main Generator Systems		0
42. Electrical Power Supply Systems		35
XX. Miscellaneous Systems		0
Total	0	351

IN-2 TARAPUR-2

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 150.0 MW(e)
Design Net Capacity: 200.0 MW(e)
Design Discharge Burnup: 21000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 893.3 GW(e).h
Energy Availability Factor: 68.9%
Load Factor: 68.0%
Operating Factor: 72.6%
Energy Unavailability Factor: 31.1%
Total Off-line Time: 2401 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	91.5	74.1	106.6	107.5	110.3	103.8	106.2	103.0	90.4	0.0	0.0	0.0	893.3
EAF (%)	84.1	71.7	94.9	99.7	100.0	98.4	97.9	95.0	86.1	0.1	0.0	0.0	68.9
UCF (%)	84.1	71.7	94.9	99.7	100.0	98.4	100.0	100.0	100.0	0.1	0.0	0.0	70.7
LF (%)	82.0	73.5	95.5	99.7	98.8	96.1	95.2	92.3	83.7	0.0	0.0	0.0	68.0
OF (%)	96.5	78.0	97.7	100.1	100.0	100.0	100.0	100.0	99.7	0.0	0.0	0.0	72.6
EUF (%)	15.9	28.3	5.1	0.3	0.0	1.6	2.1	5.0	13.9	99.9	100.0	100.0	31.1
PUF (%)	15.9	28.3	5.1	0.3	0.0	1.6	0.0	0.0	0.0	99.9	100.0	100.0	29.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	2.1	5.0	13.9	0.0	0.0	0.0	1.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT WAS SHUTDOWN AT THE END OF SEPTEMBER 2006 FOR LIFE EXTANSION ACTIVITIES.

5. Historical Summary

Date of Construction Start: 01 Oct 1964
Date of First Criticality: 28 Feb 1969
Date of Grid Connection: 05 May 1969
Date of Commercial Operation: 28 Oct 1969

Lifetime Generation: 32698.5 GW(e).h
Cumulative Energy Availability Factor: 66.4%
Cumulative Load Factor: 54.5%
Cumulative Unit Capability Factor: 74.6%
Cumulative Energy Unavailability Factor: 33.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1969	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1971	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1972	218.0	210.0	100.0	100.0	11.8	72.8	11.8	3.6	1987	22.6
1973	1249.6	210.0	67.9	92.5	67.9	71.7	67.9	18.7	7402	84.5
1974	597.0	194.0	100.0	93.8	35.0	65.1	35.1	21.7	4016	45.8
1975	925.8	200.0	52.8	87.4	52.8	63.2	52.8	26.5	5654	64.5
1976	1137.9	210.0	61.7	83.8	61.7	63.0	61.7	31.5	6534	74.4
1977	1161.5	210.0	100.0	85.8	68.2	63.6	63.1	35.4	7650	87.3
1978	1146.1	210.0	62.3	83.2	62.3	63.5	62.3	38.3	6678	76.2
1979	993.0	210.0	53.9	80.3	53.9	62.6	54.0	39.8	6216	71.0
1980	899.9	210.0	78.4	80.2	78.4	64.0	48.8	40.7	6883	78.4
1981	964.0	210.0	77.1	79.9	77.1	65.1	52.4	41.6	6748	77.0
1982	556.7	210.0	55.4	78.0	55.4	64.3	30.3	40.8	4844	55.3
1983	867.7	200.0	100.0	79.5	49.5	63.3	49.5	41.4	7519	85.8
1984	803.1	200.0	70.6	79.0	69.6	63.7	45.7	41.6	5615	63.9
1985	1070.9	160.0	83.4	79.2	83.4	64.7	72.0	43.2	8059	92.0
1986	769.5	150.0	58.9	78.3	58.6	64.5	58.6	43.8	5615	64.1
1987	1167.2	150.0	91.5	78.9	88.8	65.5	88.8	45.7	8221	93.8
1988	813.5	150.0	62.1	78.2	61.7	65.3	61.7	46.3	6077	69.2
1989	427.1	150.0	34.8	76.5	34.8	64.2	32.5	45.8	3052	34.8
1990	762.4	150.0	58.7	75.9	58.7	64.0	58.0	46.3	7827	89.3
1991	848.5	150.0	76.4	75.9	75.0	64.3	64.6	46.9	6265	71.5
1992	819.8	150.0	62.8	75.4	62.2	64.3	62.2	47.4	6076	69.2
1993	779.7	150.0	60.7	75.0	59.3	64.1	59.3	47.8	5750	65.6
1994	843.6	150.0	64.9	74.6	64.2	64.1	64.2	48.4	6722	76.7
1995	640.0	150.0	55.6	74.0	48.7	63.6	48.7	48.4	4911	56.1
1996	361.2	150.0	30.4	72.7	27.4	62.5	27.4	47.7	3203	36.5
1997	775.7	150.0	59.6	72.3	59.0	62.4	59.0	48.1	6978	79.7
1998	881.1	150.0	71.2	72.3	67.8	62.6	67.1	48.6	6522	74.5
1999	1103.5	150.0	87.6	72.7	86.4	63.2	84.0	49.6	7711	88.0
2000	1023.1	150.0	79.0	72.9	79.0	63.7	77.6	50.3	7162	81.5
2001	1197.4	150.0	93.9	73.5	93.3	64.4	91.1	51.4	8364	95.5
2002	1163.3	150.0	90.8	73.9	90.2	65.1	88.5	52.3	7978	91.1
2003	1117.1	150.0	86.1	74.2	85.9	65.6	85.0	53.2	7890	90.1
2004	1238.3	150.0	95.2	74.7	94.5	66.3	94.0	54.2	8455	96.3
2005	893.3	150.0	70.7	74.6	68.9	66.4	68.0	54.5	6359	72.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					590	2
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				1405		
D. Inspection, maintenance or repair without refuelling	173			203		
E. Testing of plant systems or components				2	4	
F. Major back-fitting, refurbishment or upgrading activities with refuelling	2211					
H. Nuclear regulatory requirements					7	
J. Grid failure or grid unavailability						35
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	16
Subtotal	2384	0	0	1610	604	53
Total	2384			2267		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		21
12. Reactor I&C Systems		5
13. Reactor Auxiliary Systems		51
14. Safety Systems		5
15. Reactor Cooling Systems		84
16. Steam generation systems		17
31. Turbine and auxiliaries		73
32. Feedwater and Main Steam System		67
41. Main Generator Systems		116
42. Electrical Power Supply Systems		126
XX. Miscellaneous Systems		13
Total	0	578

IN-24 TARAPUR-4

Operator: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

Contractor: NPCIL (NUCLEAR POWER CORPORATION OF INDIA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 490.0 MW(e)
Design Net Capacity: 502.0 MW(e)
Design Discharge Burnup: 7000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 942.8 GW(e).h
Energy Availability Factor: 73.8%
Load Factor: 65.7%
Operating Factor: 76.0%
Energy Unavailability Factor: 26.2%
Total Off-line Time: 702 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h									161.5	273.8	229.2	278.4	942.8
EAF (%)									46.7	87.0	74.7	86.1	73.8
UCF (%)									46.7	87.0	74.7	100.0	77.4
LF (%)									45.8	75.0	65.0	76.4	65.7
OF (%)									56.3	86.7	74.4	86.0	76.0
EUF (%)									53.3	13.0	25.3	13.9	26.2
PUF (%)									0.0	0.0	0.0	0.0	0.0
UCLF (%)									53.3	13.0	25.3	0.0	22.6
XUF (%)									0.0	0.0	0.0	13.9	3.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THIS UNIT IS AUTHORISED TO OPERATE AT 90% FULL POWER.

5. Historical Summary

Date of Construction Start: 08 Mar 2000
Date of First Criticality: 06 Mar 2005
Date of Grid Connection: 04 Jun 2005
Date of Commercial Operation: 12 Sep 2005

Lifetime Generation: 990.4 GW(e).h
Cumulative Energy Availability Factor: 73.8%
Cumulative Load Factor: 65.7%
Cumulative Unit Capability Factor: 77.4%
Cumulative Energy Unavailability Factor: 26.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2005	942.8	490.0	77.4	77.4	73.8	73.8	65.7	65.7	2227	76.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2005 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External

The reactor has not yet completed a full year of commercial operation.

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2005 to 2005 Average Hours Lost Per Year

The reactor has not yet completed a full year of commercial operation.

JP-5 FUKUSHIMA-DAIICHI-1

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: GE/GETSC (GENERAL ELECTRIC CO. / GENERAL ELECTRIC TECHNICAL SERVICES CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 439.0 MW(e)
Design Net Capacity: 439.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 851.3 GW(e).h
Energy Availability Factor: 22.6%
Load Factor: 22.1%
Operating Factor: 23.4%
Energy Unavailability Factor: 77.4%
Total Off-line Time: 6710 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	78.0	108.2	0.0	25.1	314.7	325.3	851.3
EAF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	25.3	35.0	0.0	9.7	100.0	100.0	22.6
UCF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	25.3	35.0	0.0	9.7	100.0	100.0	22.6
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	23.9	33.1	0.0	7.7	99.6	99.6	22.1
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	32.4	35.5	0.0	10.9	100.0	100.0	23.4
EUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	74.7	65.0	100.0	90.3	0.0	0.0	77.4
PUF (%)	100.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0	0.0	0.0	0.0	0.0	11.4
UCLF (%)	0.0	100.0	100.0	100.1	100.0	100.0	40.6	65.0	100.0	90.3	0.0	0.0	66.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	25 Jul 1967	Lifetime Generation:	69529.0 GW(e).h
Date of First Criticality:	10 Oct 1970	Cumulative Energy Availability Factor:	52.7%
Date of Grid Connection:	17 Nov 1970	Cumulative Load Factor:	52.0%
Date of Commercial Operation:	26 Mar 1971	Cumulative Unit Capability Factor:	55.0%
		Cumulative Energy Unavailability Factor:	47.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	1941.0	460.0	100.0	100.0	61.5	61.5	57.5	57.5	4738	64.5
1972	2589.1	460.0	100.0	100.0	66.4	64.2	64.1	61.1	5878	66.9
1973	2216.8	460.0	62.4	86.8	58.9	62.3	55.0	58.9	5469	62.4
1974	1629.7	439.0	56.3	79.1	47.0	58.5	42.4	54.8	4934	56.3
1975	0.0	439.0	0.0	63.2	0.0	46.7	0.0	43.8	5	0.1
1976	1563.9	439.0	40.5	59.4	40.5	45.7	40.6	43.2	4548	51.8
1977	0.0	439.0	0.0	50.9	0.0	39.1	0.0	37.0	0	0.0
1978	1497.6	439.0	38.9	49.4	38.9	39.1	38.9	37.3	4461	50.9
1979	2504.4	439.0	65.1	51.2	65.1	42.0	65.1	40.4	6626	75.6
1980	1249.5	439.0	32.4	49.3	32.4	41.1	32.4	39.6	3323	37.8
1981	1084.8	439.0	28.1	47.4	28.1	39.9	28.2	38.5	2915	33.3
1982	2355.0	439.0	61.0	48.5	61.0	41.6	61.2	40.4	5741	65.5
1983	3019.5	439.0	78.5	50.8	78.5	44.5	78.5	43.4	7384	84.3
1984	2669.8	439.0	69.5	52.1	69.5	46.3	69.2	45.2	6222	70.8
1985	1699.3	439.0	44.4	51.6	44.4	46.2	44.2	45.2	4005	45.7
1986	2524.7	439.0	66.1	52.5	66.1	47.4	65.7	46.4	5836	66.6
1987	3308.9	439.0	87.8	54.6	87.3	49.7	86.0	48.8	7727	88.2
1988	2794.5	439.0	72.8	55.6	72.8	51.0	72.5	50.1	6431	73.2
1989	1440.8	439.0	38.6	54.7	38.6	50.4	37.5	49.4	3457	39.5
1990	2352.4	439.0	61.4	55.1	61.4	50.9	61.2	50.0	5487	62.6
1991	1280.0	439.0	33.4	54.0	33.4	50.1	33.3	49.2	2985	34.1
1992	1794.1	439.0	46.9	53.7	46.9	49.9	46.5	49.1	4166	47.4
1993	2500.7	439.0	65.5	54.2	65.4	50.6	65.0	49.8	5811	66.3
1994	3337.5	439.0	87.2	55.6	87.2	52.1	86.8	51.3	7667	87.5
1995	3030.8	439.0	79.3	56.5	79.3	53.2	78.8	52.4	6977	79.6
1996	2298.6	439.0	60.0	56.7	60.0	53.5	59.6	52.7	5276	60.1
1997	3258.9	439.0	85.0	57.7	85.0	54.7	84.7	53.9	7445	85.0
1998	3287.2	439.0	86.2	58.7	85.9	55.8	85.5	55.0	7581	86.5
1999	2556.9	439.0	67.0	59.0	67.0	56.2	66.5	55.4	5876	67.1
2000	3706.3	439.0	96.9	60.3	96.9	57.5	96.1	56.8	8517	97.0
2001	487.5	439.0	12.9	58.8	12.9	56.1	12.7	55.4	1131	12.9
2002	3120.2	439.0	81.6	59.5	81.6	56.9	81.1	56.2	7146	81.6
2003	0.0	439.0	0.0	57.7	0.0	55.2	0.0	54.5	0	0.0
2004	0.0	439.0	0.0	56.0	0.0	53.5	0.0	52.9	0	0.0
2005	851.3	439.0	22.6	55.0	22.6	52.7	22.1	52.0	2050	23.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1898			663	
C. Inspection, maintenance or repair combined with refuelling	744			2933		
D. Inspection, maintenance or repair without refuelling	258			81		
H. Nuclear regulatory requirements					10	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					42	
Z. Others		3939				
Subtotal	1002	5837	0	3014	715	0
Total		6839			3729	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		59
13. Reactor Auxiliary Systems		279
14. Safety Systems		5
15. Reactor Cooling Systems		9
31. Turbine and auxiliaries		10
32. Feedwater and Main Steam System	1898	1
41. Main Generator Systems		29
42. Electrical Power Supply Systems		4
XX. Miscellaneous Systems		0
Total	1898	396

JP-9 FUKUSHIMA-DAIICHI-2

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: GE/T (GENERAL ELECTRIC CO. / TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 760.0 MW(e)
Design Net Capacity: 760.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3424.9 GW(e).h
Energy Availability Factor: 52.2%
Load Factor: 51.4%
Operating Factor: 54.1%
Energy Unavailability Factor: 47.8%
Total Off-line Time: 4025 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	9.5	558.0	302.1	0.0	0.0	485.0	558.9	540.9	155.5	305.6	509.4	3424.9
EAF (%)	0.0	1.8	99.5	56.0	0.0	0.0	86.7	99.9	99.8	29.7	57.4	90.7	52.2
UCF (%)	0.0	1.8	99.5	56.1	0.0	0.0	86.7	100.0	100.0	29.7	57.4	90.8	52.2
LF (%)	0.0	1.9	98.7	55.3	0.0	0.0	85.8	98.8	98.9	27.5	55.9	90.1	51.4
OF (%)	0.0	3.9	100.0	56.7	0.0	0.0	91.1	100.0	100.0	31.5	60.6	100.0	54.1
EUf (%)	100.0	98.2	0.5	44.0	100.0	100.0	13.3	0.1	0.2	70.3	42.6	9.3	47.8
PUF (%)	100.0	2.0	0.5	43.9	100.0	96.7	0.0	0.0	0.0	0.0	0.0	1.0	28.8
UCLF (%)	0.0	96.2	0.0	0.0	0.0	3.3	13.3	0.0	0.0	70.3	42.6	8.3	19.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	09 Jun 1969	Lifetime Generation:	122907.0 GW(e).h
Date of First Criticality:	10 May 1973	Cumulative Energy Availability Factor:	59.8%
Date of Grid Connection:	24 Dec 1973	Cumulative Load Factor:	59.1%
Date of Commercial Operation:	18 Jul 1974	Cumulative Unit Capability Factor:	60.0%
		Cumulative Energy Unavailability Factor:	40.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	2591.9	760.0	83.0	83.0	77.2	77.2	77.2	77.2	3739	84.7
1975	622.1	760.0	11.2	35.3	11.2	33.3	9.3	32.1	982	11.2
1976	4191.4	760.0	62.8	46.3	62.8	45.1	62.8	44.4	6918	78.8
1977	49.7	760.0	0.7	33.3	0.7	32.5	0.7	31.9	96	1.1
1978	3876.3	760.0	58.2	38.8	58.2	38.2	58.2	37.8	6538	74.6
1979	2976.0	760.0	44.7	39.9	44.7	39.4	44.7	39.0	4752	54.2
1980	2889.0	760.0	43.3	40.4	43.3	40.0	43.3	39.7	4619	52.6
1981	3841.8	760.0	57.8	42.7	57.8	42.3	57.7	42.1	5794	66.1
1982	5290.2	760.0	79.4	47.0	79.4	46.7	79.5	46.5	7531	86.0
1983	3422.7	760.0	51.4	47.5	51.4	47.2	51.4	47.0	4934	56.3
1984	3698.7	760.0	56.0	48.3	56.0	48.0	55.4	47.8	5069	57.7
1985	4266.3	760.0	65.1	49.8	65.1	49.5	64.1	49.2	5952	67.9
1986	5541.1	760.0	84.3	52.5	84.3	52.3	83.2	51.9	7478	85.4
1987	3851.1	760.0	58.6	53.0	58.6	52.8	57.8	52.4	5260	60.0
1988	4101.3	760.0	62.3	53.6	62.3	53.4	61.4	53.0	5724	65.2
1989	6516.4	760.0	100.0	56.6	100.0	56.4	97.9	55.9	8760	100.0
1990	3122.8	760.0	47.6	56.1	47.6	55.9	46.9	55.3	4385	50.1
1991	3853.1	760.0	59.3	56.2	59.3	56.1	57.9	55.5	5291	60.4
1992	4568.5	760.0	69.8	57.0	69.7	56.8	68.4	56.2	6261	71.3
1993	4186.7	760.0	64.3	57.4	64.3	57.2	62.9	56.5	5659	64.6
1994	2266.0	760.0	36.0	56.3	34.7	56.1	34.0	55.4	3138	35.8
1995	6396.5	760.0	97.2	58.2	97.2	58.0	96.1	57.3	8520	97.3
1996	5192.3	760.0	78.8	59.1	78.8	58.9	77.8	58.2	6948	79.1
1997	4618.9	760.0	70.3	59.6	70.3	59.4	69.4	58.7	6197	70.7
1998	3976.2	760.0	60.9	59.7	60.6	59.5	59.7	58.7	5352	61.1
1999	3158.4	760.0	48.1	59.2	48.1	59.0	47.4	58.3	4216	48.1
2000	5167.2	760.0	78.6	59.9	78.6	59.8	77.4	59.0	6904	78.6
2001	5996.5	760.0	91.3	61.1	91.3	60.9	90.1	60.2	8036	91.7
2002	5101.0	760.0	77.8	61.7	77.8	61.5	76.6	60.7	6815	77.8
2003	1601.1	760.0	24.3	60.4	24.3	60.2	24.0	59.5	2136	24.4
2004	3671.5	760.0	55.7	60.2	55.7	60.1	55.0	59.3	4949	56.3
2005	3424.9	760.0	52.2	60.0	52.2	59.8	51.4	59.1	4735	54.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		886			191	
B. Refuelling without a maintenance					48	
C. Inspection, maintenance or repair combined with refuelling	1758			2662		
D. Inspection, maintenance or repair without refuelling	744			106		
H. Nuclear regulatory requirements						15
J. Grid failure or grid unavailability						2
L. Human factor related		646				
Z. Others		163			51	
Subtotal	2502	1695	0	2768	290	17
Total		4197			3075	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	886	84
15. Reactor Cooling Systems		19
31. Turbine and auxiliaries		39
32. Feedwater and Main Steam System		42
42. Electrical Power Supply Systems		5
Total	886	189

JP-10 FUKUSHIMA-DAIICHI-3

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 760.0 MW(e)
Design Net Capacity: 760.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5103.9 GW(e).h
Energy Availability Factor: 76.1%
Load Factor: 76.7%
Operating Factor: 79.8%
Energy Unavailability Factor: 23.9%
Total Off-line Time: 1773 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	110.9	538.6	563.7	545.9	564.9	562.3	543.5	563.2	546.5	564.4	5103.9
EAF (%)	0.0	0.0	9.9	98.8	100.0	100.0	100.0	99.9	99.9	100.0	100.0	100.0	76.1
UCF (%)	0.0	0.0	9.9	98.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	76.1
LF (%)	0.0	0.0	19.6	98.6	99.7	99.8	99.9	99.4	99.3	99.5	99.9	99.8	76.7
OF (%)	0.0	0.0	52.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	79.8
EUf (%)	100.0	100.0	90.1	1.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	23.9
PUF (%)	100.0	100.0	44.8	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1
UCLF (%)	0.0	0.0	45.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	28 Dec 1970	Lifetime Generation:	130707.0 GW(e).h
Date of First Criticality:	06 Sep 1974	Cumulative Energy Availability Factor:	64.8%
Date of Grid Connection:	26 Oct 1974	Cumulative Load Factor:	64.4%
Date of Commercial Operation:	27 Mar 1976	Cumulative Unit Capability Factor:	64.8%
		Cumulative Energy Unavailability Factor:	35.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	4441.7	784.0	80.2	80.2	80.2	80.2	77.1	77.1	6807	92.7
1977	2171.1	760.0	32.6	54.7	32.6	54.7	32.6	53.3	3575	40.8
1978	2753.7	760.0	41.4	50.0	41.4	50.0	41.4	49.1	4368	49.9
1979	4916.3	760.0	73.9	56.2	73.9	56.2	73.8	55.5	7190	82.1
1980	4287.0	760.0	64.2	57.9	64.2	57.9	64.2	57.3	6110	69.6
1981	3722.8	760.0	55.9	57.5	55.9	57.5	55.9	57.1	5173	59.1
1982	2886.8	760.0	42.8	55.4	42.8	55.4	43.4	55.1	4037	46.1
1983	4034.0	760.0	60.6	56.0	60.6	56.0	60.6	55.8	5643	64.4
1984	4497.3	760.0	67.7	57.4	67.7	57.4	67.4	57.1	6041	68.8
1985	5798.6	760.0	87.7	60.4	87.7	60.4	87.1	60.1	7738	88.3
1986	4234.2	760.0	63.5	60.7	63.5	60.7	63.6	60.4	5621	64.2
1987	3748.8	760.0	57.4	60.4	56.7	60.4	56.3	60.1	5086	58.1
1988	5123.0	760.0	77.0	61.7	77.0	61.7	76.7	61.4	6822	77.7
1989	5706.7	760.0	86.2	63.5	86.2	63.4	85.7	63.1	7616	86.9
1990	2919.5	760.0	44.3	62.2	44.3	62.2	43.9	61.8	3985	45.5
1991	4491.0	760.0	68.0	62.6	68.0	62.5	67.5	62.2	6003	68.5
1992	6098.7	760.0	92.0	64.3	92.0	64.3	91.4	63.9	8120	92.4
1993	4204.3	760.0	63.7	64.3	63.7	64.2	63.2	63.9	5655	64.6
1994	4202.3	760.0	63.6	64.2	63.6	64.2	63.1	63.8	5647	64.5
1995	5966.5	760.0	90.2	65.5	90.2	65.5	89.6	65.1	8036	91.7
1996	4909.7	760.0	73.9	65.9	73.9	65.9	73.5	65.5	6525	74.3
1997	2516.7	760.0	38.1	64.7	38.1	64.6	37.8	64.3	3345	38.2
1998	2632.7	760.0	42.2	63.7	42.2	63.7	39.5	63.2	3622	41.3
1999	5116.1	760.0	77.4	64.3	77.3	64.2	76.8	63.8	6792	77.5
2000	5932.5	760.0	89.5	65.3	89.4	65.2	88.9	64.8	7859	89.5
2001	5637.3	760.0	85.6	66.1	85.5	66.0	84.7	65.6	7506	85.7
2002	3567.3	760.0	54.1	65.6	54.0	65.6	53.6	65.1	4747	54.2
2003	2483.6	760.0	37.6	64.6	37.6	64.6	37.3	64.1	3290	37.6
2004	3969.7	760.0	59.5	64.4	59.5	64.4	59.5	63.9	5225	59.5
2005	5103.9	760.0	76.1	64.8	76.1	64.8	76.7	64.4	6987	79.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		354			243	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1656			2525		
D. Inspection, maintenance or repair without refuelling				37		
E. Testing of plant systems or components				24		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	0
Z. Others					8	
Subtotal	1656	354	0	2586	251	0
Total		2010			2837	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		175
13. Reactor Auxiliary Systems		0
15. Reactor Cooling Systems	354	45
31. Turbine and auxiliaries		18
42. Electrical Power Supply Systems		3
Total	354	241

JP-16 FUKUSHIMA-DAIICHI-4

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: HITACHI (HITACHI LTD.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 760.0 MW(e)
Design Net Capacity: 760.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1515.6 GW(e).h
Energy Availability Factor: 22.9%
Load Factor: 22.8%
Operating Factor: 25.0%
Energy Unavailability Factor: 77.1%
Total Off-line Time: 6572 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	449.9	563.7	431.7	0.0	0.0	0.0	0.0	0.0	70.3	1515.6
EAF (%)	0.0	0.0	0.0	82.6	100.0	79.4	0.0	0.0	0.0	0.1	0.0	13.1	22.9
UCF (%)	0.0	0.0	0.0	82.6	100.0	79.4	0.0	0.0	0.0	0.1	0.0	13.1	22.9
LF (%)	0.0	0.0	0.0	82.3	99.7	78.9	0.0	0.0	0.0	0.0	0.0	12.4	22.8
OF (%)	0.0	0.0	0.0	85.8	100.0	80.0	0.0	0.0	0.0	0.0	0.0	33.7	25.0
EUF (%)	100.0	100.0	100.0	17.4	0.0	20.6	100.0	100.0	100.0	99.9	100.0	86.9	77.1
PUF (%)	100.0	0.0	0.0	3.0	0.0	20.6	100.0	100.0	100.0	99.9	10.0	18.6	46.5
UCLF (%)	0.0	100.0	100.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	90.0	68.4	30.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	12 Feb 1973	Lifetime Generation:	128529.0 GW(e).h
Date of First Criticality:	28 Jan 1978	Cumulative Energy Availability Factor:	69.9%
Date of Grid Connection:	24 Feb 1978	Cumulative Load Factor:	69.6%
Date of Commercial Operation:	12 Oct 1978	Cumulative Unit Capability Factor:	69.9%
		Cumulative Energy Unavailability Factor:	30.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	1432.4	760.0	85.4	85.4	85.4	85.4	85.4	85.4	2194	99.4
1979	3917.4	760.0	58.8	64.2	58.8	64.2	58.8	64.2	6213	70.9
1980	4317.0	760.0	64.7	64.4	64.7	64.4	64.7	64.4	6326	72.0
1981	4667.5	760.0	70.1	66.1	70.1	66.1	70.1	66.2	6585	75.2
1982	5734.7	760.0	86.1	70.8	86.1	70.8	86.1	70.8	7776	88.8
1983	4818.2	760.0	72.4	71.1	72.4	71.1	72.4	71.1	6485	74.0
1984	4433.2	760.0	66.8	70.4	66.8	70.4	66.4	70.4	5924	67.4
1985	4409.0	760.0	66.6	69.9	66.6	69.9	66.2	69.8	5889	67.2
1986	4315.2	760.0	65.0	69.3	65.0	69.3	64.8	69.2	5733	65.4
1987	5964.0	760.0	89.9	71.5	89.9	71.5	89.6	71.4	7927	90.5
1988	5309.9	760.0	79.7	72.3	79.7	72.3	79.5	72.2	7066	80.4
1989	4232.6	760.0	63.8	71.6	63.8	71.6	63.6	71.4	5661	64.6
1990	4273.8	760.0	64.6	71.0	64.6	71.0	64.2	70.8	5715	65.2
1991	6483.4	760.0	98.0	73.0	98.0	73.0	97.4	72.8	8630	98.5
1992	4082.7	760.0	61.4	72.2	61.4	72.2	61.2	72.0	5475	62.3
1993	4206.6	760.0	63.5	71.6	63.4	71.6	63.2	71.4	5597	63.9
1994	6323.3	760.0	95.3	73.1	95.3	73.1	95.0	72.9	8416	96.1
1995	5485.7	760.0	82.8	73.7	82.7	73.7	82.4	73.4	7339	83.8
1996	4949.9	760.0	74.4	73.7	74.4	73.7	74.1	73.5	6545	74.5
1997	4556.8	760.0	68.6	73.4	68.6	73.4	68.4	73.2	6038	68.9
1998	5441.4	760.0	82.0	73.9	82.0	73.9	81.7	73.6	7216	82.4
1999	5890.5	760.0	88.8	74.6	88.8	74.6	88.5	74.3	7826	89.3
2000	4415.9	760.0	66.5	74.2	66.5	74.2	66.1	74.0	5856	66.7
2001	5858.5	760.0	88.7	74.8	88.4	74.8	88.0	74.6	7772	88.7
2002	4687.7	760.0	70.9	74.7	70.9	74.6	70.4	74.4	6191	70.7
2003	0.0	760.0	0.0	71.7	0.0	71.7	0.0	71.5	0	0.0
2004	4729.0	760.0	71.2	71.7	71.2	71.7	70.8	71.4	6262	71.3
2005	1515.6	760.0	22.9	69.9	22.9	69.9	22.8	69.6	2188	25.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1392			318	
C. Inspection, maintenance or repair combined with refuelling	3174			1767		
D. Inspection, maintenance or repair without refuelling	744			28		
E. Testing of plant systems or components				0		
Z. Others		1579			43	
Subtotal	3918	2971	0	1795	361	0
Total		6889			2156	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		270
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		7
15. Reactor Cooling Systems		24
31. Turbine and auxiliaries	934	3
32. Feedwater and Main Steam System	458	
41. Main Generator Systems		9
42. Electrical Power Supply Systems		0
Total	1392	317

JP-17 FUKUSHIMA-DAIICHI-5

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 760.0 MW(e)
Design Net Capacity: 760.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2792.6 GW(e).h
Energy Availability Factor: 42.4%
Load Factor: 41.9%
Operating Factor: 43.2%
Energy Unavailability Factor: 57.6%
Total Off-line Time: 4979 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	361.9	561.7	394.5	0.0	369.2	543.7	561.7	2792.6
EAF (%)	0.0	0.0	0.0	-0.1	0.0	67.1	100.0	71.0	0.0	66.6	100.0	100.0	42.4
UCF (%)	0.0	0.0	0.0	-0.1	0.0	67.1	100.0	71.1	0.0	66.6	100.0	100.0	42.4
LF (%)	0.0	0.0	0.0	0.0	0.0	66.1	99.3	69.8	0.0	65.2	99.4	99.3	41.9
OF (%)	0.0	0.0	0.0	0.0	0.0	71.8	100.0	71.6	0.0	70.2	100.0	100.0	43.2
EUF (%)	100.0	100.0	100.0	100.1	100.0	32.9	0.0	29.0	100.0	33.5	0.0	0.0	57.6
PUF (%)	100.0	100.0	100.0	100.1	64.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.4
UCLF (%)	0.0	0.0	0.0	0.0	35.5	32.9	0.0	28.9	100.0	33.4	0.0	0.0	19.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	22 May 1972	Lifetime Generation:	130844.0 GW(e).h
Date of First Criticality:	26 Aug 1977	Cumulative Energy Availability Factor:	71.0%
Date of Grid Connection:	22 Sep 1977	Cumulative Load Factor:	70.5%
Date of Commercial Operation:	18 Apr 1978	Cumulative Unit Capability Factor:	71.1%
		Cumulative Energy Unavailability Factor:	29.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	4047.9	760.0	80.7	80.7	80.7	80.7	80.7	80.7	6532	99.0
1979	3898.6	760.0	58.6	68.1	58.6	68.1	58.6	68.1	5847	66.7
1980	4282.6	760.0	64.1	66.6	64.1	66.6	64.2	66.6	6467	73.6
1981	4553.9	760.0	68.4	67.1	68.4	67.1	68.4	67.1	6616	75.5
1982	4061.3	760.0	60.7	65.8	60.7	65.8	61.0	65.8	5789	66.1
1983	5338.8	760.0	80.2	68.3	80.2	68.3	80.2	68.3	7328	83.7
1984	4691.5	760.0	70.9	68.7	70.9	68.7	70.3	68.6	6293	71.6
1985	4112.4	760.0	62.1	67.8	62.1	67.8	61.8	67.7	5547	63.3
1986	4157.4	760.0	63.2	67.3	63.2	67.3	62.4	67.1	5622	64.2
1987	3995.0	760.0	60.8	66.6	60.5	66.6	60.0	66.4	5399	61.6
1988	5952.7	760.0	90.0	68.8	90.0	68.8	89.2	68.5	7973	90.8
1989	4766.5	760.0	72.2	69.1	72.2	69.1	71.6	68.8	6401	73.1
1990	3956.5	760.0	60.2	68.4	60.2	68.4	59.4	68.0	5354	61.1
1991	6575.8	760.0	100.0	70.7	100.0	70.7	98.8	70.3	8760	100.0
1992	4841.2	760.0	73.3	70.9	73.3	70.8	72.5	70.4	6488	73.9
1993	4059.7	760.0	61.7	70.3	61.7	70.3	61.0	69.8	5448	62.2
1994	4246.2	760.0	64.6	70.0	64.6	69.9	63.8	69.5	5723	65.3
1995	5878.7	760.0	89.1	71.0	89.1	71.0	88.3	70.5	7885	90.0
1996	5666.9	760.0	85.6	71.8	85.6	71.8	84.9	71.3	7521	85.6
1997	4609.4	760.0	69.8	71.7	69.8	71.7	69.2	71.2	6139	70.1
1998	5369.9	760.0	81.7	72.2	81.5	72.2	80.7	71.7	7217	82.4
1999	6154.1	760.0	93.3	73.2	93.2	73.1	92.4	72.6	8184	93.4
2000	1647.0	760.0	24.9	71.0	24.9	71.0	24.7	70.5	2187	24.9
2001	5905.1	760.0	89.7	71.8	89.6	71.8	88.7	71.3	7869	89.8
2002	6590.5	760.0	100.0	73.0	99.8	72.9	99.0	72.4	8760	100.0
2003	2723.8	760.0	41.4	71.7	41.4	71.7	40.9	71.2	3627	41.4
2004	5471.3	760.0	82.9	72.2	82.8	72.1	82.0	71.6	7281	82.9
2005	2792.6	760.0	42.4	71.1	42.4	71.0	41.9	70.5	3781	43.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1817			43	
C. Inspection, maintenance or repair combined with refuelling	3360			2024		
D. Inspection, maintenance or repair without refuelling				28		
E. Testing of plant systems or components				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
Z. Others					57	
Subtotal	3360	1817	0	2052	100	0
Total		5177			2152	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		14
13. Reactor Auxiliary Systems		3
14. Safety Systems	1255	
15. Reactor Cooling Systems		8
31. Turbine and auxiliaries	562	1
32. Feedwater and Main Steam System		14
42. Electrical Power Supply Systems		2
Total	1817	42

JP-18 FUKUSHIMA-DAIICHI-6

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: GE/T (GENERAL ELECTRIC CO. / TOSHIBA CORPORATION)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 1067.0 MW(e)
 Design Net Capacity: 1067.0 MW(e)
 Design Discharge Burnup: 39500 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7986.5 GW(e).h
 Energy Availability Factor: 85.2%
 Load Factor: 85.4%
 Operating Factor: 85.7%
 Energy Unavailability Factor: 14.8%
 Total Off-line Time: 1257 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	415.7	798.9	772.6	798.3	772.8	796.7	795.4	768.6	794.5	769.7	503.3	7986.5
EAF (%)	0.0	58.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	63.8	85.2
UCF (%)	0.0	58.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	63.8	85.2
LF (%)	0.0	58.0	100.6	100.7	100.6	100.6	100.4	100.2	100.0	99.9	100.2	63.4	85.4
OF (%)	0.0	62.9	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	64.5	85.7
EUF (%)	100.0	41.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	36.2	14.8
PUF (%)	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	36.2	11.6
UCLF (%)	0.0	41.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 26 Oct 1973
 Date of First Criticality: 09 Mar 1979
 Date of Grid Connection: 04 May 1979
 Date of Commercial Operation: 24 Oct 1979

Lifetime Generation: 173272.0 GW(e).h
 Cumulative Energy Availability Factor: 70.5%
 Cumulative Load Factor: 70.0%
 Cumulative Unit Capability Factor: 70.5%
 Cumulative Energy Unavailability Factor: 29.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	1967.8	1047.0	84.5	84.5	84.5	84.5	85.1	85.1	1906	86.3
1980	6441.1	1047.0	69.9	72.9	69.9	72.9	70.0	73.1	6289	71.6
1981	7418.6	1067.0	81.5	76.7	81.5	76.7	79.4	75.9	7756	88.5
1982	6666.5	1067.0	71.2	75.0	71.2	75.0	71.3	74.5	6577	75.1
1983	5387.8	1067.0	57.6	70.9	57.6	70.9	57.6	70.5	5308	60.6
1984	5933.2	1067.0	64.2	69.6	64.2	69.6	63.3	69.1	5708	65.0
1985	5384.8	1067.0	58.1	67.8	58.1	67.8	57.6	67.3	5196	59.3
1986	7783.5	1067.0	84.3	70.1	84.3	70.1	83.3	69.5	7390	84.4
1987	7789.2	1067.0	84.1	71.8	84.1	71.8	83.3	71.2	7406	84.5
1988	5593.1	1067.0	60.1	70.5	60.1	70.5	59.7	69.9	5385	61.3
1989	5128.4	1067.0	55.8	69.1	55.8	69.1	54.9	68.4	4956	56.6
1990	7727.1	1067.0	82.9	70.3	82.9	70.3	82.7	69.7	7394	84.4
1991	6948.7	1067.0	75.1	70.7	75.1	70.7	74.3	70.1	6627	75.7
1992	5213.6	1067.0	56.0	69.6	56.0	69.6	55.6	69.0	4993	56.8
1993	6530.9	1067.0	70.2	69.6	70.2	69.6	69.9	69.1	6168	70.4
1994	8079.4	1067.0	86.8	70.7	86.7	70.7	86.4	70.2	7679	87.7
1995	6850.8	1067.0	73.7	70.9	73.6	70.9	73.3	70.4	6517	74.4
1996	6157.8	1067.0	66.0	70.6	66.0	70.6	65.7	70.1	5804	66.1
1997	9307.7	1067.0	99.9	72.2	99.8	72.2	99.6	71.7	8760	100.0
1998	6329.0	1067.0	68.1	72.0	68.0	72.0	67.7	71.5	6026	68.8
1999	7960.5	1067.0	85.8	72.7	85.5	72.7	85.2	72.2	7523	85.9
2000	7495.6	1067.0	80.4	73.1	80.4	73.0	80.0	72.6	7074	80.5
2001	7778.9	1067.0	83.7	73.6	83.7	73.5	83.2	73.0	7417	84.7
2002	6270.9	1067.0	67.5	73.3	67.5	73.3	67.1	72.8	5912	67.5
2003	4623.9	1067.0	49.7	72.3	49.7	72.3	49.5	71.8	4338	49.5
2004	1088.8	1067.0	11.7	69.9	11.7	69.9	11.6	69.4	1028	11.7
2005	7986.5	1067.0	85.2	70.5	85.2	70.5	85.4	70.0	7503	85.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					212	
C. Inspection, maintenance or repair combined with refuelling	272			1978		
D. Inspection, maintenance or repair without refuelling	744			128		
E. Testing of plant systems or components				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	
Z. Others		364			45	
Subtotal	1016	364	0	2106	265	0
Total		1380			2371	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		156
13. Reactor Auxiliary Systems		25
31. Turbine and auxiliaries		8
32. Feedwater and Main Steam System		10
41. Main Generator Systems		11
Total	0	210

JP-25 FUKUSHIMA-DAINI-1

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)
Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1067.0 MW(e)
Design Net Capacity: 1067.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5606.2 GW(e).h
Energy Availability Factor: 60.3%
Load Factor: 60.0%
Operating Factor: 61.4%
Energy Unavailability Factor: 39.7%
Total Off-line Time: 3378 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	153.4	631.0	626.8	794.0	498.9	542.5	793.8	770.7	795.1	5606.2
EAF (%)	0.0	0.0	0.0	21.8	79.8	81.9	100.0	64.0	71.6	100.0	100.0	100.0	60.3
UCF (%)	0.0	0.0	0.0	21.8	79.8	81.9	100.0	64.0	71.6	100.0	100.0	100.0	60.3
LF (%)	0.0	0.0	0.0	20.0	79.5	81.6	100.0	62.8	70.6	99.9	100.3	100.2	60.0
OF (%)	0.0	0.0	0.0	25.9	80.4	85.0	100.0	66.8	74.6	99.9	100.0	100.0	61.4
EUF (%)	100.0	100.0	100.0	78.2	20.2	18.1	0.0	36.0	28.4	0.0	0.0	0.0	39.7
PUF (%)	100.0	100.0	100.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8
UCLF (%)	0.0	0.0	0.0	64.9	20.2	18.1	0.0	36.0	28.4	0.0	0.0	0.0	13.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 16 Mar 1976
Date of First Criticality: 17 Jun 1981
Date of Grid Connection: 31 Jul 1981
Date of Commercial Operation: 20 Apr 1982

Lifetime Generation: 166674.0 GW(e).h
Cumulative Energy Availability Factor: 75.3%
Cumulative Load Factor: 74.5%
Cumulative Unit Capability Factor: 75.4%
Cumulative Energy Unavailability Factor: 24.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	6738.3	1067.0	95.7	95.7	95.7	95.7	95.7	95.7	6522	98.8
1983	6282.2	1067.0	67.2	79.4	67.2	79.4	67.2	79.4	6130	70.0
1984	6344.4	1067.0	68.6	75.5	68.6	75.5	67.7	75.2	6175	70.3
1985	8152.9	1067.0	88.0	78.8	88.0	78.8	87.2	78.4	7776	88.8
1986	7741.0	1067.0	83.6	79.8	83.6	79.8	82.8	79.3	7404	84.5
1987	6992.1	1067.0	75.8	79.1	75.8	79.1	74.8	78.5	6710	76.6
1988	5959.3	1067.0	64.4	76.9	64.4	76.9	63.6	76.3	5744	65.4
1989	6246.2	1067.0	67.4	75.7	67.4	75.7	66.8	75.1	6029	68.8
1990	8217.0	1067.0	88.9	77.2	88.9	77.2	87.9	76.6	7914	90.3
1991	6191.1	1067.0	67.2	76.2	67.2	76.2	66.2	75.5	5927	67.7
1992	6901.5	1067.0	75.1	76.1	74.6	76.0	73.6	75.3	6656	75.8
1993	5613.1	1067.0	60.9	74.8	60.9	74.8	60.1	74.0	5384	61.5
1994	8309.1	1067.0	90.1	76.0	90.1	76.0	88.9	75.2	7936	90.6
1995	7727.5	1067.0	83.5	76.5	83.5	76.5	82.7	75.7	7333	83.7
1996	6761.4	1067.0	73.1	76.3	73.1	76.3	72.1	75.5	6425	73.1
1997	7304.8	1067.0	79.2	76.5	79.2	76.5	78.2	75.7	6993	79.8
1998	7694.1	1067.0	83.3	76.9	83.3	76.9	82.3	76.1	7318	83.5
1999	7389.4	1067.0	80.0	77.1	80.0	77.0	79.1	76.2	7011	80.0
2000	8229.0	1067.0	89.1	77.7	89.1	77.7	87.8	76.8	7824	89.1
2001	5902.6	1067.0	64.4	77.0	64.4	77.0	63.2	76.2	5645	64.4
2002	9238.2	1067.0	100.0	78.1	99.9	78.1	98.8	77.2	8760	100.0
2003	3239.3	1067.0	34.9	76.2	34.9	76.1	34.7	75.3	3061	34.9
2004	6749.7	1067.0	73.2	76.0	72.6	76.0	72.0	75.1	6522	74.2
2005	5606.2	1067.0	60.3	75.4	60.3	75.3	60.0	74.5	5382	61.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1419			332	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	2256			1502		
D. Inspection, maintenance or repair without refuelling				38		
Subtotal	2256	1419	0	1540	334	0
Total		3675			1874	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		108
13. Reactor Auxiliary Systems	521	
15. Reactor Cooling Systems	560	184
31. Turbine and auxiliaries		20
35. All other I&C Systems	338	
41. Main Generator Systems		2
42. Electrical Power Supply Systems		16
Total	1419	330

JP-26 FUKUSHIMA-DAINI-2

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: HITACHI (HITACHI LTD.)

1. Station Details

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1067.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7593.5 GW(e).h

Energy Availability Factor: 81.2%

Load Factor: 81.2%

Operating Factor: 81.4%

Energy Unavailability Factor: 18.8%

Total Off-line Time: 1632 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	796.3	719.7	796.4	770.0	796.1	769.3	792.8	790.5	763.3	599.1	0.0	0.0	7593.5
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	76.3	0.0	0.0	81.2
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	76.9	0.0	0.0	81.3
LF (%)	100.3	100.4	100.3	100.4	100.3	100.1	99.9	99.6	99.4	75.4	0.0	0.0	81.2
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	77.3	0.0	0.0	81.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	23.7	100.0	100.0	18.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	23.1	100.0	100.0	18.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 25 May 1979 Lifetime Generation: 152292.0 GW(e).h

Date of First Criticality: 26 Apr 1983 Cumulative Energy Availability Factor: 73.9%

Date of Grid Connection: 23 Jun 1983 Cumulative Load Factor: 73.4%

Date of Commercial Operation: 03 Feb 1984 Cumulative Unit Capability Factor: 73.9%

 Cumulative Energy Unavailability Factor: 26.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	8480.8	1067.0	100.0	100.0	98.9	98.9	98.9	98.9	8040	100.0
1985	6760.1	1067.0	72.9	85.9	72.9	85.3	72.3	85.0	6534	74.6
1986	7063.9	1067.0	76.2	82.6	76.2	82.2	75.6	81.8	6727	76.8
1987	6844.9	1067.0	74.3	80.5	74.3	80.2	73.2	79.6	6607	75.4
1988	7628.4	1067.0	82.1	80.8	82.1	80.6	81.4	80.0	7238	82.4
1989	8308.8	1067.0	89.4	82.2	89.4	82.1	88.9	81.5	7920	90.4
1990	6261.3	1067.0	67.3	80.1	67.3	79.9	67.0	79.4	5956	68.0
1991	6887.3	1067.0	74.3	79.4	74.3	79.2	73.7	78.7	6579	75.1
1992	8116.3	1067.0	87.1	80.2	87.1	80.1	86.6	79.6	7656	87.2
1993	6785.7	1067.0	73.2	79.5	73.2	79.4	72.6	78.9	6427	73.4
1994	7058.2	1067.0	76.0	79.2	76.0	79.1	75.5	78.5	6696	76.4
1995	6786.7	1067.0	73.1	78.7	73.1	78.6	72.6	78.0	6435	73.5
1996	9327.9	1067.0	100.0	80.3	100.0	80.3	99.5	79.7	8784	100.0
1997	7405.6	1067.0	79.8	80.3	79.8	80.2	79.2	79.7	7021	80.1
1998	7447.1	1067.0	80.2	80.3	80.2	80.2	79.7	79.7	7104	81.1
1999	8231.6	1067.0	88.7	80.8	88.6	80.8	88.1	80.2	7765	88.6
2000	8874.5	1067.0	95.2	81.7	95.2	81.6	94.7	81.1	8372	95.3
2001	6761.9	1067.0	73.1	81.2	73.1	81.1	72.3	80.6	6378	72.8
2002	4645.2	1067.0	50.2	79.6	50.2	79.5	49.7	78.9	4398	50.2
2003	0.0	1067.0	0.0	75.6	0.0	75.5	0.0	75.0	0	0.0
2004	3169.8	1067.0	33.9	73.6	33.9	73.5	33.8	73.0	2978	33.9
2005	7593.5	1067.0	81.3	73.9	81.2	73.9	81.2	73.4	7128	81.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					268	
C. Inspection, maintenance or repair combined with refuelling	1638			1675		
D. Inspection, maintenance or repair without refuelling				158		
Z. Others					172	
Subtotal	1638	0	0	1833	440	0
Total	1638			2273		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		137
12. Reactor I&C Systems		32
13. Reactor Auxiliary Systems		24
14. Safety Systems		8
15. Reactor Cooling Systems		65
Total	0	266

JP-35 FUKUSHIMA-DAINI-3

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 1067.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 359.5 GW(e).h

Energy Availability Factor: 4.0%

Load Factor: 3.8%

Operating Factor: 4.5%

Energy Unavailability Factor: 96.0%

Total Off-line Time: 8370 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	359.5	359.5
EAF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	46.8	4.0
UCF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	46.8	4.0
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.3	3.8
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.4	4.5
EUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	53.2	96.0
PUF (%)	100.0	100.0	100.0	100.1	100.0	93.3	0.0	0.0	0.0	0.0	0.0	3.0	49.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	6.7	100.0	100.0	100.0	99.9	100.0	50.2	46.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 23 Mar 1981

Date of First Criticality: 18 Oct 1984

Date of Grid Connection: 14 Dec 1984

Date of Commercial Operation: 21 Jun 1985

Lifetime Generation: 122640.0 GW(e).h

Cumulative Energy Availability Factor: 63.8%

Cumulative Load Factor: 62.9%

Cumulative Unit Capability Factor: 63.8%

Cumulative Energy Unavailability Factor: 36.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	4851.3	1067.0	95.4	95.4	95.4	95.4	88.5	88.5	4707	91.6
1986	6837.4	1067.0	74.4	82.1	74.4	82.1	73.2	78.8	6559	74.9
1987	7459.9	1067.0	80.8	81.6	80.8	81.6	79.8	79.2	7104	81.1
1988	8389.1	1067.0	90.7	84.2	90.7	84.2	89.5	82.1	8126	92.5
1989	120.2	1067.0	1.3	66.1	1.3	66.1	1.3	64.5	144	1.6
1990	912.9	1067.0	9.8	56.0	9.8	56.0	9.8	54.7	1037	11.8
1991	7695.1	1067.0	83.1	60.1	83.1	60.1	82.3	58.9	7344	83.8
1992	7533.2	1067.0	81.3	62.9	81.3	62.9	80.4	61.7	7195	81.9
1993	6810.5	1067.0	73.8	64.2	73.8	64.2	72.9	63.0	6494	74.1
1994	4841.6	1067.0	52.5	63.0	52.5	63.0	51.8	61.9	4669	53.3
1995	8992.5	1067.0	97.2	66.2	97.2	66.2	96.2	65.1	8557	97.7
1996	8060.6	1067.0	87.0	68.0	87.0	68.0	86.0	66.9	7642	87.0
1997	7487.4	1067.0	81.2	69.0	81.2	69.0	80.1	68.0	7120	81.3
1998	8284.7	1067.0	89.9	70.6	89.7	70.6	88.6	69.5	7905	90.2
1999	8566.8	1067.0	92.7	72.1	92.7	72.1	91.7	71.0	8127	92.8
2000	7643.9	1067.0	82.5	72.8	82.5	72.8	81.6	71.7	7258	82.6
2001	3288.0	1067.0	35.9	70.6	35.8	70.5	35.2	69.5	3185	36.4
2002	6123.4	1067.0	66.3	70.3	66.3	70.3	65.5	69.2	5806	66.3
2003	0.0	1067.0	0.0	66.5	0.0	66.5	0.0	65.5	0	0.0
2004	6862.3	1067.0	73.7	66.9	73.7	66.9	73.2	65.9	6508	74.1
2005	359.5	1067.0	4.0	63.8	4.0	63.8	3.8	62.9	390	4.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		4155			478	
C. Inspection, maintenance or repair combined with refuelling	4296			1914		
D. Inspection, maintenance or repair without refuelling				64		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					176	
Z. Others					40	
Subtotal	4296	4155	0	1978	694	0
Total	8451			2672		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		170
12. Reactor I&C Systems	4155	
15. Reactor Cooling Systems		294
32. Feedwater and Main Steam System		14
Total	4155	478

JP-38 FUKUSHIMA-DAINI-4

Operator: TEPCO (TOKYO ELECTRIC POWER CO.,INC.)

Contractor: HITACHI (HITACHI LTD.)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 1067.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5345.9 GW(e).h

Energy Availability Factor: 57.2%

Load Factor: 57.2%

Operating Factor: 57.6%

Energy Unavailability Factor: 42.8%

Total Off-line Time: 3712 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	796.2	720.1	479.6	0.0	0.0	0.0	0.0	217.6	768.2	796.9	771.6	795.8	5345.9
EAF (%)	100.0	100.0	60.7	-0.1	0.0	0.0	0.0	29.1	100.0	100.0	100.0	100.0	57.2
UCF (%)	100.0	100.0	60.7	-0.1	0.0	0.0	0.0	29.1	100.0	100.0	100.0	100.0	57.2
LF (%)	100.3	100.4	60.4	0.0	0.0	0.0	0.0	27.4	100.0	100.2	100.4	100.2	57.2
OF (%)	100.0	100.0	61.3	0.0	0.0	0.0	0.0	33.3	100.0	99.9	100.0	100.0	57.6
EUF (%)	0.0	0.0	39.3	100.1	100.0	100.0	100.0	70.9	0.0	0.0	0.0	0.0	42.8
PUF (%)	0.0	0.0	39.3	100.1	100.0	23.3	0.0	2.5	0.0	0.0	0.0	0.0	22.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	76.7	100.0	68.4	0.0	0.0	0.0	0.0	20.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 28 May 1981

Date of First Criticality: 24 Oct 1986

Date of Grid Connection: 17 Dec 1986

Date of Commercial Operation: 25 Aug 1987

Lifetime Generation: 126595.0 GW(e).h

Cumulative Energy Availability Factor: 73.1%

Cumulative Load Factor: 72.3%

Cumulative Unit Capability Factor: 73.2%

Cumulative Energy Unavailability Factor: 26.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	3642.2	1067.0	100.0	100.0	100.0	100.0	93.0	93.0	3463	94.3
1988	7010.3	1067.0	75.5	82.7	75.5	82.7	74.8	80.2	6739	76.7
1989	9137.9	1067.0	99.2	89.6	99.2	89.6	97.8	87.4	8728	99.6
1990	7051.4	1067.0	76.0	85.6	76.0	85.6	75.4	83.9	6757	77.1
1991	7278.9	1067.0	79.0	84.1	79.0	84.1	77.9	82.6	7029	80.2
1992	5901.7	1067.0	63.8	80.4	63.5	80.3	63.0	78.9	5646	64.3
1993	9049.0	1067.0	97.6	83.1	97.5	83.0	96.8	81.7	8608	98.3
1994	6735.5	1067.0	73.5	81.8	72.7	81.6	72.1	80.4	6481	74.0
1995	7782.7	1067.0	83.9	82.0	83.9	81.9	83.3	80.8	7385	84.3
1996	6842.6	1067.0	73.7	81.1	73.7	81.0	73.0	79.9	6470	73.7
1997	9275.9	1067.0	99.9	82.9	99.9	82.8	99.2	81.8	8760	100.0
1998	8075.0	1067.0	87.2	83.3	87.2	83.2	86.4	82.2	7678	87.6
1999	8136.0	1067.0	87.8	83.7	87.8	83.6	87.0	82.6	7699	87.9
2000	6685.2	1067.0	72.0	82.8	72.0	82.7	71.3	81.7	6329	72.1
2001	9250.2	1067.0	99.9	84.0	99.7	83.9	99.0	82.9	8760	100.0
2002	5986.6	1067.0	64.7	82.7	64.7	82.6	64.0	81.7	5668	64.7
2003	0.0	1067.0	0.0	77.7	0.0	77.6	0.0	76.7	0	0.0
2004	1450.0	1067.0	15.5	74.1	15.5	74.0	15.5	73.2	1360	15.5
2005	5345.9	1067.0	57.2	73.2	57.2	73.1	57.2	72.3	5048	57.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1877			390	
C. Inspection, maintenance or repair combined with refuelling	1926			1368		
D. Inspection, maintenance or repair without refuelling				107		
Z. Others					303	
Subtotal	1926	1877	0	1475	693	0
Total		3803			2168	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		40
15. Reactor Cooling Systems		318
21. Fuel Handling and Storage Facilities		29
32. Feedwater and Main Steam System	1877	
33. Circulating Water System		1
Total	1877	388

JP-12 GENKAI-1

Operator: KYUSHU (KYUSHU ELECTRIC POWER CO.,INC.)

Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 529.0 MW(e)
Design Net Capacity: 529.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3310.8 GW(e).h
Energy Availability Factor: 69.7%
Load Factor: 71.4%
Operating Factor: 70.5%
Energy Unavailability Factor: 30.3%
Total Off-line Time: 2580 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	405.2	216.7	0.0	0.0	0.0	300.2	401.1	399.1	388.0	403.2	391.7	405.6	3310.8
EAF (%)	100.0	59.2	0.0	-0.1	0.0	77.0	100.0	100.0	100.0	100.0	100.0	100.0	69.7
UCF (%)	100.0	59.2	0.0	-0.1	0.0	77.0	100.0	100.0	100.0	100.0	100.0	100.0	69.7
LF (%)	103.0	61.0	0.0	0.0	0.0	78.8	101.9	101.4	101.9	102.3	102.8	103.1	71.4
OF (%)	100.0	59.8	0.0	0.0	0.0	85.8	100.0	100.0	100.0	99.9	100.0	100.0	70.5
EUF (%)	0.0	40.8	100.0	100.1	100.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3
PUF (%)	0.0	40.8	100.0	100.1	100.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	15 Sep 1971	Lifetime Generation:	103465.0 GW(e).h
Date of First Criticality:	28 Jan 1975	Cumulative Energy Availability Factor:	72.0%
Date of Grid Connection:	14 Feb 1975	Cumulative Load Factor:	72.3%
Date of Commercial Operation:	15 Oct 1975	Cumulative Unit Capability Factor:	72.0%
		Cumulative Energy Unavailability Factor:	28.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	1041.2	529.0	89.2	89.2	89.2	89.2	89.1	89.1	2208	100.0
1976	3652.7	559.0	74.4	77.2	74.4	77.2	74.4	77.2	7022	79.9
1977	3785.0	532.0	83.4	79.9	83.4	79.9	81.2	79.0	7764	88.6
1978	3415.8	529.0	73.7	78.0	73.7	78.0	73.7	77.4	6681	76.3
1979	2219.8	531.0	47.7	71.0	47.7	71.0	47.7	70.5	4390	50.1
1980	3533.0	529.0	75.6	71.9	75.6	71.9	76.0	71.5	6772	77.1
1981	2739.8	529.0	58.9	69.8	58.9	69.8	59.1	69.6	5309	60.6
1982	3744.7	529.0	80.7	71.3	80.7	71.3	80.8	71.1	7072	80.7
1983	3960.5	529.0	85.4	73.0	85.4	73.0	85.5	72.8	7678	87.6
1984	3139.7	529.0	67.5	72.4	67.5	72.4	67.6	72.3	6072	69.1
1985	3089.7	529.0	66.7	71.8	66.7	71.8	66.7	71.7	6056	69.1
1986	2867.2	529.0	61.8	71.0	61.8	71.0	61.9	70.9	5425	61.9
1987	3762.7	529.0	81.3	71.8	81.1	71.8	81.2	71.7	7285	83.2
1988	2365.6	529.0	50.9	70.2	50.9	70.2	50.9	70.1	4743	54.0
1989	2183.2	529.0	47.1	68.6	47.1	68.6	47.1	68.5	4310	49.2
1990	2725.7	529.0	58.8	68.0	58.8	68.0	58.8	67.9	5159	58.9
1991	3357.5	529.0	72.7	68.3	72.4	68.2	72.5	68.2	6542	74.7
1992	3291.7	529.0	70.8	68.4	70.7	68.4	70.8	68.3	6397	72.8
1993	2797.4	529.0	60.3	68.0	60.3	67.9	60.4	67.9	5459	62.3
1994	2530.6	529.0	54.5	67.3	54.5	67.3	54.6	67.2	4787	54.6
1995	4151.0	529.0	89.4	68.4	89.4	68.3	89.6	68.3	7842	89.5
1996	4107.8	529.0	88.3	69.3	88.3	69.3	88.4	69.2	7829	89.1
1997	3653.4	529.0	78.7	69.7	78.7	69.7	78.8	69.7	6984	79.7
1998	3703.2	529.0	79.8	70.2	79.8	70.1	79.9	70.1	7057	80.6
1999	3305.9	529.0	71.2	70.2	71.2	70.2	71.3	70.2	6362	72.6
2000	4435.5	529.0	95.3	71.2	95.3	71.2	95.5	71.2	8400	95.6
2001	2512.3	529.0	54.1	70.5	54.1	70.5	54.2	70.5	4745	54.2
2002	3822.9	529.0	81.0	70.9	81.0	70.9	82.5	71.0	7097	81.0
2003	3622.8	529.0	76.4	71.1	76.4	71.1	78.2	71.2	6692	76.4
2004	4768.4	529.0	100.0	72.1	100.0	72.1	102.6	72.3	8784	100.0
2005	3310.8	529.0	69.7	72.0	69.7	72.0	71.4	72.3	6180	70.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					155	
C. Inspection, maintenance or repair combined with refuelling	2712			2084		
D. Inspection, maintenance or repair without refuelling				22		
Subtotal	2712	0	0	2106	155	0
Total	2712			2261		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		53
15. Reactor Cooling Systems		21
16. Steam generation systems		67
42. Electrical Power Supply Systems		2
Total	0	154

JP-27 GENKAI-2

Operator: KYUSHU (KYUSHU ELECTRIC POWER CO.,INC.)

Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 529.0 MW(e)
Design Net Capacity: 529.0 MW(e)
Design Discharge Burnup: 31500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3776.2 GW(e).h
Energy Availability Factor: 78.7%
Load Factor: 81.5%
Operating Factor: 79.4%
Energy Unavailability Factor: 21.3%
Total Off-line Time: 1808 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	408.5	369.1	408.8	395.4	407.2	392.7	118.4	0.0	66.6	404.9	395.0	409.5	3776.2
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	29.4	0.0	17.2	100.0	100.0	100.0	78.7
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	29.4	0.0	17.2	100.0	100.0	100.0	78.7
LF (%)	103.8	103.8	103.9	104.0	103.5	103.1	30.1	0.0	17.5	102.7	103.7	104.0	81.5
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	30.0	0.0	24.6	99.9	100.0	100.0	79.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	70.6	100.0	82.8	0.0	0.0	0.0	21.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	52.2	100.0	82.8	0.0	0.0	0.0	19.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	18.4	0.0	0.0	0.0	0.0	0.0	1.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Feb 1977
Date of First Criticality: 21 May 1980
Date of Grid Connection: 03 Jun 1980
Date of Commercial Operation: 30 Mar 1981

Lifetime Generation: 98588.0 GW(e).h
Cumulative Energy Availability Factor: 81.3%
Cumulative Load Factor: 82.0%
Cumulative Unit Capability Factor: 81.3%
Cumulative Energy Unavailability Factor: 18.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	3852.3	529.0	100.0	100.0	98.8	98.8	99.2	99.2	7310	99.5
1982	3598.1	529.0	77.4	87.7	77.4	87.2	77.6	87.5	6931	79.1
1983	3671.7	529.0	79.0	84.6	79.0	84.3	79.2	84.6	7056	80.5
1984	3803.5	529.0	81.6	83.8	81.6	83.6	81.9	83.9	7359	83.8
1985	3857.5	529.0	82.9	83.6	82.9	83.4	83.2	83.7	7423	84.7
1986	4631.7	529.0	99.5	86.4	99.5	86.2	99.9	86.5	8760	100.0
1987	3874.4	529.0	83.3	85.9	83.3	85.8	83.6	86.1	7426	84.8
1988	3458.4	529.0	74.2	84.4	74.2	84.3	74.4	84.6	6630	75.5
1989	3241.4	529.0	69.8	82.8	69.8	82.6	69.9	82.9	6230	71.1
1990	4654.8	529.0	100.0	84.5	100.0	84.4	100.4	84.7	8760	100.0
1991	3732.4	529.0	80.2	84.1	80.2	84.0	80.5	84.3	7141	81.5
1992	3480.6	529.0	74.5	83.3	74.5	83.2	74.9	83.5	6638	75.6
1993	3722.3	529.0	79.9	83.0	79.9	83.0	80.3	83.3	7007	80.0
1994	4013.5	529.0	86.2	83.3	86.2	83.2	86.6	83.5	7561	86.3
1995	3784.1	529.0	81.3	83.1	81.3	83.1	81.7	83.4	7225	82.5
1996	3644.7	529.0	78.1	82.8	78.1	82.7	78.4	83.1	6991	79.6
1997	3448.3	529.0	74.1	82.3	74.1	82.2	74.4	82.6	6541	74.7
1998	3701.4	529.0	79.6	82.1	79.6	82.1	79.9	82.4	6978	79.7
1999	4347.9	529.0	93.4	82.7	93.4	82.7	93.8	83.0	8186	93.4
2000	3473.3	529.0	74.4	82.3	74.4	82.3	74.7	82.6	6541	74.5
2001	2216.4	529.0	47.7	80.7	47.7	80.6	47.8	80.9	4177	47.7
2002	4107.5	529.0	86.7	80.9	86.7	80.9	88.6	81.3	7598	86.7
2003	4490.5	529.0	93.7	81.5	93.7	81.4	96.9	82.0	8209	93.7
2004	3848.6	529.0	80.2	81.4	80.2	81.4	82.8	82.0	7052	80.3
2005	3776.2	529.0	78.7	81.3	78.7	81.3	81.5	82.0	6952	79.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		137			21	
C. Inspection, maintenance or repair combined with refuelling	1971			1545		
Subtotal	1971	137	0	1545	21	0
Total	2108			1566		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	137	
16. Steam generation systems		21
Total	137	21

JP-45 GENKAI-3**Operator:** KYUSHU (KYUSHU ELECTRIC POWER CO.,INC.)**Contractor:** MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1127.0 MW(e)

Design Net Capacity: 1127.0 MW(e)

Design Discharge Burnup: 31000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8658.9 GW(e).h

Energy Availability Factor: 85.3%

Load Factor: 87.7%

Operating Factor: 85.9%

Energy Unavailability Factor: 14.7%

Total Off-line Time: 1237 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	863.7	779.6	863.6	836.1	863.1	835.4	861.9	858.3	330.4	0.0	707.1	859.6	8658.9
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	39.7	0.1	85.2	100.0	85.3
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	39.7	0.1	85.2	100.0	85.3
LF (%)	103.0	102.9	103.0	103.2	102.9	103.0	102.8	102.4	40.7	0.0	87.1	102.5	87.7
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	40.1	0.0	91.4	100.0	85.9
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.3	99.9	14.8	0.0	14.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.3	99.9	14.8	0.0	14.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Jun 1988 **Lifetime Generation:** 105833.0 GW(e).h

Date of First Criticality: 28 May 1993 **Cumulative Energy Availability Factor:** 84.7%

Date of Grid Connection: 15 Jun 1993 **Cumulative Load Factor:** 85.6%

Date of Commercial Operation: 18 Mar 1994 **Cumulative Unit Capability Factor:** 84.7%

Cumulative Energy Unavailability Factor: 15.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1994	8086.5	1127.0	97.2	97.2	97.2	97.2	97.7	97.7	7146	97.3
1995	7356.3	1127.0	74.1	84.7	74.1	84.7	74.5	85.1	6588	75.2
1996	7444.9	1127.0	74.9	81.2	74.9	81.2	75.2	81.6	6663	75.9
1997	8259.9	1127.0	83.3	81.8	83.3	81.8	83.7	82.1	7358	84.0
1998	9633.1	1127.0	97.1	84.9	97.1	84.9	97.6	85.3	8514	97.2
1999	7999.8	1127.0	80.7	84.2	80.7	84.2	81.0	84.6	7068	80.7
2000	8109.7	1127.0	81.6	83.8	81.6	83.8	81.9	84.2	7164	81.6
2001	8205.1	1127.0	82.7	83.7	82.7	83.7	83.1	84.1	7249	82.8
2002	9561.5	1127.0	96.4	85.1	96.4	85.1	96.9	85.5	8446	96.4
2003	8667.8	1127.0	85.6	85.2	85.6	85.2	87.8	85.7	7497	85.6
2004	8121.1	1127.0	79.9	84.7	79.9	84.7	82.0	85.4	7015	79.9
2005	8658.9	1127.0	85.3	84.7	85.3	84.7	87.7	85.6	7523	85.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
C. Inspection, maintenance or repair combined with refuelling	1344			1192		
Subtotal	1344	0	0	1192	0	0
Total	1344			1192		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
The reactor has not yet completed a full year of commercial operation.		

JP-46 GENKAI-4

Operator: KYUSHU (KYUSHU ELECTRIC POWER CO.,INC.)

Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1127.0 MW(e)
 Design Net Capacity: 1127.0 MW(e)
 Design Discharge Burnup: 31000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8572.5 GW(e).h
 Energy Availability Factor: 85.0%
 Load Factor: 86.8%
 Operating Factor: 85.6%
 Energy Unavailability Factor: 15.0%
 Total Off-line Time: 1261 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	858.7	775.1	858.2	357.2	0.0	647.7	854.2	853.1	826.2	853.8	829.2	859.1	8572.5
EAF (%)	100.0	100.0	100.0	42.9	0.0	78.4	100.0	100.0	100.0	100.0	100.0	100.0	85.0
UCF (%)	100.0	100.0	100.0	42.9	0.0	78.4	100.0	100.0	100.0	100.0	100.0	100.0	85.0
LF (%)	102.4	102.3	102.4	44.1	0.0	79.8	101.9	101.7	101.8	101.7	102.2	102.5	86.8
OF (%)	100.0	100.0	100.0	43.5	0.0	84.7	100.0	100.0	100.0	99.9	100.0	100.0	85.6
EUUF (%)	0.0	0.0	0.0	57.1	100.0	21.6	0.0	0.0	0.0	0.0	0.0	0.0	15.0
PUF (%)	0.0	0.0	0.0	57.1	100.0	21.6	0.0	0.0	0.0	0.0	0.0	0.0	15.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 15 Jul 1992 Lifetime Generation: 74691.0 GW(e).h
 Date of First Criticality: 23 Oct 1996 Cumulative Energy Availability Factor: 86.3%
 Date of Grid Connection: 12 Nov 1996 Cumulative Load Factor: 87.2%
 Date of Commercial Operation: 25 Jul 1997 Cumulative Unit Capability Factor: 86.3%
 Cumulative Energy Unavailability Factor: 13.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1997	4792.1	1127.0	100.0	100.0	100.0	100.0	96.3	96.3	4259	96.4
1998	7634.5	1127.0	76.7	84.5	76.7	84.5	77.3	83.7	6783	77.4
1999	9716.3	1127.0	97.7	89.8	97.7	89.8	98.4	89.6	8559	97.7
2000	8181.2	1127.0	82.0	87.6	82.0	87.6	82.6	87.6	7205	82.0
2001	8107.2	1127.0	81.5	86.2	81.5	86.2	82.1	86.4	7142	81.5
2002	8208.3	1127.0	82.4	85.5	82.4	85.5	83.1	85.8	7217	82.4
2003	9678.7	1127.0	96.1	87.2	96.1	87.2	98.0	87.7	8422	96.1
2004	8330.6	1127.0	82.4	86.5	82.4	86.5	84.2	87.2	7243	82.5
2005	8572.5	1127.0	85.0	86.3	85.0	86.3	86.8	87.2	7499	85.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1998 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					38	
C. Inspection, maintenance or repair combined with refuelling	1367			1061		
Subtotal	1367	0	0	1061	38	0
Total	1367			1099		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1998 to 2005 Average Hours Lost Per Year
41. Main Generator Systems		38
Total	0	38

5. Historical Summary

Date of Construction Start:	10 Jun 1971	Lifetime Generation:	73631.0 GW(e).h
Date of First Criticality:	20 Jun 1974	Cumulative Energy Availability Factor:	53.3%
Date of Grid Connection:	13 Aug 1974	Cumulative Load Factor:	52.9%
Date of Commercial Operation:	17 Mar 1976	Cumulative Unit Capability Factor:	53.3%
		Cumulative Energy Unavailability Factor:	46.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	2050.0	515.0	54.2	54.2	54.2	54.2	54.2	54.2	4635	63.1
1977	2250.5	515.0	49.9	51.9	49.9	51.9	49.9	51.9	5194	59.3
1978	55.9	515.0	1.2	34.0	1.2	34.0	1.2	34.0	283	3.2
1979	3059.0	515.0	67.8	42.8	67.8	42.8	67.8	42.8	6980	79.7
1980	3051.9	515.0	67.5	47.9	67.5	47.9	67.5	47.9	6916	78.7
1981	2394.2	515.0	53.1	48.8	53.1	48.8	53.1	48.8	5052	57.7
1982	2997.6	515.0	66.6	51.4	66.6	51.4	66.4	51.4	6237	71.2
1983	3054.9	515.0	67.7	53.5	67.7	53.5	67.7	53.5	6236	71.2
1984	2377.5	515.0	53.6	53.5	53.6	53.5	52.6	53.4	4822	54.9
1985	4437.1	515.0	100.0	58.2	100.0	58.2	98.4	57.9	8760	100.0
1986	2919.8	515.0	65.0	58.9	65.0	58.9	64.7	58.6	5804	66.3
1987	3290.7	515.0	73.1	60.1	73.1	60.1	72.9	59.8	6560	74.9
1988	1838.7	515.0	40.7	58.6	40.7	58.6	40.6	58.3	3649	41.5
1989	1950.7	515.0	43.4	57.5	43.4	57.5	43.2	57.2	3904	44.6
1990	2040.6	515.0	49.0	56.9	49.0	56.9	45.2	56.4	4015	45.8
1991	2162.8	515.0	48.3	56.3	48.2	56.3	47.9	55.9	4319	49.3
1992	2730.1	515.0	60.7	56.6	60.7	56.6	60.3	56.1	5384	61.3
1993	2872.6	515.0	64.4	57.0	64.1	57.0	63.7	56.5	5681	64.9
1994	1642.1	515.0	36.6	56.0	36.6	55.9	36.4	55.5	3216	36.7
1995	3499.6	515.0	78.1	57.1	78.1	57.1	77.6	56.6	6892	78.7
1996	3662.3	515.0	81.4	58.2	81.4	58.2	81.0	57.8	7158	81.5
1997	4118.0	515.0	92.1	59.8	91.9	59.8	91.3	59.3	8086	92.3
1998	3609.8	515.0	80.5	60.7	80.5	60.7	80.0	60.2	7070	80.7
1999	2878.7	515.0	64.2	60.9	64.2	60.8	63.8	60.4	5630	64.3
2000	3198.0	515.0	71.3	61.3	71.2	61.2	70.7	60.8	6268	71.4
2001	3069.8	515.0	68.5	61.6	68.5	61.5	68.0	61.1	6000	68.5
2002	0.0	515.0	0.0	59.3	0.0	59.2	0.0	58.8	0	0.0
2003	0.0	515.0	0.0	57.1	0.0	57.1	0.0	56.7	0	0.0
2004	0.0	515.0	0.0	55.1	0.0	55.1	0.0	54.7	0	0.0
2005	0.0	515.0	0.0	53.3	0.0	53.3	0.0	52.9	0	0.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					1172	
C. Inspection, maintenance or repair combined with refuelling	8760			2259		
D. Inspection, maintenance or repair without refuelling				97		
E. Testing of plant systems or components				0		
Subtotal	8760	0	0	2356	1172	0
Total	8760			3528		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		654
12. Reactor I&C Systems		198
13. Reactor Auxiliary Systems		126
15. Reactor Cooling Systems		170
21. Fuel Handling and Storage Facilities		16
31. Turbine and auxiliaries		0
32. Feedwater and Main Steam System		6
Total	0	1170

JP-24 HAMAOKA-2

Operator: CHUBU (CHUBU ELECTRIC POWER CO.,INC.)
Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 806.0 MW(e)
Design Net Capacity: 814.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 0.0 GW(e).h
Energy Availability Factor: 0.0%
Load Factor: 0.0%
Operating Factor: 0.0%
Energy Unavailability Factor: 100.0%
Total Off-line Time: 8760 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EAF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
UCF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
PUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 14 Jun 1974
Date of First Criticality: 28 Mar 1978
Date of Grid Connection: 04 May 1978
Date of Commercial Operation: 29 Nov 1978

Lifetime Generation: 129570.0 GW(e).h
Cumulative Energy Availability Factor: 66.3%
Cumulative Load Factor: 66.4%
Cumulative Unit Capability Factor: 66.4%
Cumulative Energy Unavailability Factor: 33.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	1048.6	814.0	88.0	88.0	88.0	88.0	88.0	88.0	1351	92.3
1979	4364.5	814.0	61.2	65.1	61.2	65.1	61.2	65.0	5905	67.4
1980	4709.3	814.0	65.9	65.4	65.9	65.4	65.9	65.4	6261	71.3
1981	5037.4	814.0	70.7	67.1	70.7	67.1	70.6	67.1	6527	74.5
1982	6223.6	814.0	87.3	71.9	87.3	71.9	87.3	71.9	8074	92.2
1983	4888.1	814.0	68.6	71.3	68.6	71.3	68.6	71.3	6250	71.3
1984	4693.8	815.0	66.3	70.5	66.3	70.5	65.6	70.3	5877	66.9
1985	4397.2	815.0	62.5	69.4	62.5	69.4	61.6	69.1	5553	63.4
1986	4845.5	815.0	68.1	69.2	68.1	69.2	67.9	69.0	6145	70.1
1987	7002.0	815.0	98.7	72.4	98.7	72.4	98.1	72.1	8760	100.0
1988	4015.9	815.0	56.4	70.8	56.4	70.8	56.1	70.6	5108	58.2
1989	4613.0	806.0	64.4	70.3	64.4	70.3	65.3	70.1	5864	66.9
1990	5828.1	806.0	82.2	71.2	82.2	71.2	82.5	71.1	7289	83.2
1991	5299.5	806.0	74.7	71.5	74.7	71.5	75.1	71.4	6625	75.6
1992	4319.6	806.0	60.6	70.7	60.6	70.7	61.0	70.7	5421	61.7
1993	5347.9	806.0	75.3	71.0	75.3	71.0	75.7	71.0	6657	76.0
1994	4537.8	806.0	64.1	70.6	64.1	70.6	64.3	70.6	5643	64.4
1995	6922.2	806.0	97.8	72.2	97.7	72.2	98.0	72.2	8577	97.9
1996	6152.7	806.0	86.5	73.0	86.5	73.0	86.9	73.0	7613	86.7
1997	5106.5	806.0	72.2	72.9	72.1	72.9	72.3	73.0	6350	72.5
1998	5191.8	806.0	73.4	73.0	73.2	72.9	73.5	73.0	6462	73.8
1999	5221.5	806.0	74.0	73.0	73.6	73.0	74.0	73.0	6481	74.0
2000	4972.9	806.0	70.0	72.9	69.9	72.8	70.2	72.9	6146	70.0
2001	5134.2	806.0	72.6	72.9	72.2	72.8	72.7	72.9	6362	72.6
2002	164.0	806.0	2.3	70.0	2.3	69.9	2.3	70.0	198	2.3
2003	6950.1	806.0	98.1	71.1	97.8	71.0	98.4	71.1	8617	98.4
2004	951.3	806.0	14.0	68.9	13.3	68.8	13.4	68.9	1225	13.9
2005	0.0	806.0	0.0	66.4	0.0	66.3	0.0	66.4	0	0.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					98	
C. Inspection, maintenance or repair combined with refuelling	8760			1946		
D. Inspection, maintenance or repair without refuelling				117		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					41	
Z. Others					233	
Subtotal	8760	0	0	2063	372	0
Total	8760			2435		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		65
32. Feedwater and Main Steam System		32
XX. Miscellaneous Systems		0
Total	0	97

JP-36 HAMAOKA-3

Operator: CHUBU (CHUBU ELECTRIC POWER CO.,INC.)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 1056.0 MW(e)

Design Net Capacity: 1056.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5793.4 GW(e).h

Energy Availability Factor: 62.1%

Load Factor: 62.6%

Operating Factor: 62.5%

Energy Unavailability Factor: 37.9%

Total Off-line Time: 3287 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	325.4	0.0	0.0	0.0	3.1	763.3	793.4	790.5	765.5	791.6	766.2	794.4	5793.4
EAF (%)	41.6	0.0	0.0	-0.1	0.1	99.4	100.0	100.0	100.0	100.0	100.0	100.0	62.1
UCF (%)	42.2	0.0	0.0	-0.1	0.2	99.4	100.0	100.0	100.0	100.0	100.0	100.0	62.2
LF (%)	41.4	0.0	0.0	0.0	0.4	100.4	101.0	100.6	100.7	100.6	100.8	101.1	62.6
OF (%)	42.7	0.0	0.0	0.0	2.6	100.0	100.0	100.0	100.0	99.9	100.0	100.0	62.5
EUF (%)	58.4	100.0	100.0	100.1	99.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	37.9
PUF (%)	57.8	100.0	100.0	100.1	99.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	37.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING(2005/01/14 - 2005/05/31)

5. Historical Summary

Date of Construction Start: 18 Apr 1983 Lifetime Generation: 133755.0 GW(e).h

Date of First Criticality: 21 Nov 1986 Cumulative Energy Availability Factor: 77.7%

Date of Grid Connection: 20 Jan 1987 Cumulative Load Factor: 76.8%

Date of Commercial Operation: 28 Aug 1987 Cumulative Unit Capability Factor: 77.7%

 Cumulative Energy Unavailability Factor: 22.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	3622.6	1066.0	99.5	99.5	99.5	99.5	92.5	92.5	3470	94.5
1988	7066.8	1066.0	75.8	82.8	75.8	82.8	75.5	80.5	6862	78.1
1989	8542.0	1066.0	92.4	86.7	92.4	86.7	91.5	85.0	8167	93.2
1990	6601.3	1056.0	71.4	82.3	71.4	82.3	71.4	81.1	6366	72.7
1991	6763.1	1056.0	73.5	80.3	73.5	80.3	73.1	79.3	6472	73.9
1992	6585.4	1056.0	71.7	78.7	71.4	78.7	71.0	77.8	6371	72.5
1993	8768.0	1056.0	95.3	81.3	95.3	81.2	94.8	80.4	8359	95.4
1994	6490.5	1056.0	77.4	80.8	77.4	80.7	70.2	79.0	6784	77.4
1995	7725.7	1056.0	84.6	81.2	84.1	81.1	83.5	79.6	7429	84.8
1996	6891.6	1056.0	74.8	80.6	74.7	80.4	74.3	79.0	6573	74.8
1997	8109.7	1056.0	88.3	81.3	88.3	81.2	87.7	79.8	7863	89.8
1998	9200.7	1056.0	100.0	82.9	100.0	82.8	99.5	81.5	8760	100.0
1999	7618.3	1056.0	82.8	82.9	82.8	82.8	82.4	81.6	7255	82.8
2000	7706.0	1056.0	83.6	83.0	83.6	82.9	83.1	81.7	7340	83.6
2001	6476.8	1056.0	70.4	82.1	70.4	82.0	70.0	80.9	6171	70.4
2002	6350.9	1056.0	69.0	81.3	69.0	81.2	68.7	80.1	6044	69.0
2003	1486.6	1056.0	16.1	77.3	16.1	77.2	16.1	76.2	1403	16.0
2004	9342.5	1056.0	100.0	78.6	100.0	78.5	100.7	77.6	8784	100.0
2005	5793.4	1056.0	62.2	77.7	62.1	77.7	62.6	76.8	5473	62.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					236	
C. Inspection, maintenance or repair combined with refuelling	3330			1214		
D. Inspection, maintenance or repair without refuelling				36		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					6	
Z. Others					192	
Subtotal	3330	0	0	1250	434	0
Total	3330			1684		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		205
35. All other I&C Systems		0
Total	0	205

JP-49 HAMAOKA-4

Operator: CHUBU (CHUBU ELECTRIC POWER CO.,INC.)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1092.0 MW(e)
Design Net Capacity: 1092.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9595.6 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 100.3%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	816.4	737.9	816.5	789.7	815.5	788.1	814.4	811.7	786.5	813.5	788.6	816.8	9595.6
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	100.5	100.6	100.5	100.6	100.4	100.2	100.2	99.9	100.0	100.0	100.3	100.5	100.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 13 Oct 1989
Date of First Criticality: 02 Dec 1992
Date of Grid Connection: 27 Jan 1993
Date of Commercial Operation: 03 Sep 1993

Lifetime Generation: 99476.0 GW(e).h
Cumulative Energy Availability Factor: 82.1%
Cumulative Load Factor: 82.0%
Cumulative Unit Capability Factor: 82.2%
Cumulative Energy Unavailability Factor: 17.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	3186.2	1092.0	99.9	99.9	99.9	99.9	99.7	99.7	2928	100.0
1994	7110.4	1092.0	74.9	81.2	74.7	81.0	74.3	80.7	6576	75.1
1995	9546.0	1092.0	100.0	89.2	100.0	89.1	99.8	88.9	8760	100.0
1996	8301.3	1092.0	86.7	88.5	86.7	88.4	86.5	88.2	7615	86.7
1997	7883.0	1092.0	83.1	87.2	82.6	87.1	82.4	86.8	7302	83.4
1998	7154.1	1092.0	74.9	84.9	74.9	84.8	74.8	84.6	6604	75.4
1999	9545.1	1092.0	99.9	87.3	99.9	87.2	99.8	87.0	8760	100.0
2000	8233.7	1092.0	86.3	87.2	86.0	87.0	85.8	86.8	7577	86.3
2001	8773.5	1092.0	91.8	87.7	91.8	87.6	91.7	87.4	8046	91.8
2002	6436.4	1092.0	67.4	85.5	67.4	85.4	67.3	85.3	5906	67.4
2003	3729.8	1092.0	39.1	81.1	39.1	81.0	39.0	80.8	3415	39.0
2004	7279.7	1092.0	75.8	80.6	75.8	80.5	75.9	80.3	6668	75.9
2005	9595.6	1092.0	100.0	82.2	100.0	82.1	100.3	82.0	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					436	
C. Inspection, maintenance or repair combined with refuelling				1025		
D. Inspection, maintenance or repair without refuelling				50		
Z. Others					88	
Subtotal	0	0	0	1075	524	0
Total	0			1599		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		436
Total	0	436

JP-60 HAMAOKA-5

Operator: CHUBU (CHUBU ELECTRIC POWER CO.,INC.)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 1325.0 MW(e)

Design Net Capacity: 1325.0 MW(e)

Design Discharge Burnup: —

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 11870.4 GW(e).h

Energy Availability Factor: 100.0%

Load Factor: 102.3%

Operating Factor: 100.0%

Energy Unavailability Factor: 0.0%

Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1012.6	914.7	1012.3	979.0	1009.8	974.6	1006.1	998.9	970.0	1005.0	975.1	1012.2	11870.4
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	102.7	102.7	102.7	102.8	102.4	102.2	102.1	101.3	101.7	101.8	102.2	102.7	102.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

COMMERCIAL OPERATION (2005/01/18 -)

5. Historical Summary

Date of Construction Start: 12 Jul 2000 Lifetime Generation: 15598.0 GW(e).h

Date of First Criticality: 23 Mar 2004 Cumulative Energy Availability Factor: 100.0%

Date of Grid Connection: 26 Apr 2004 Cumulative Load Factor: 102.3%

Date of Commercial Operation: 18 Jan 2005 Cumulative Unit Capability Factor: 100.0%

 Cumulative Energy Unavailability Factor: 0.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2005	11870.4	1325.0	100.0	100.0	100.0	100.0	102.3	102.3	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2005 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External

The reactor has not yet completed a full year of commercial operation.

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2005 to 2005 Average Hours Lost Per Year

The reactor has not yet completed a full year of commercial operation.

JP-58 HIGASHI DORI 1 (TOHOKU)

Operator: TOHOKU (TOHOKU ELECTRIC POWER CO.,INC)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 1067.0 MW(e)
 Design Net Capacity: 1067.0 MW(e)
 Design Discharge Burnup: —
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 610.5 GW(e).h
 Energy Availability Factor: 100.0%
 Load Factor: 76.9%
 Operating Factor: 77.4%
 Energy Unavailability Factor: 0.0%
 Total Off-line Time: 168 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h												610.5	610.5
EAF (%)												100.0	100.0
UCF (%)												100.0	100.0
LF (%)												76.9	76.9
OF (%)												77.4	77.4
EUF (%)												0.0	0.0
PUF (%)												0.0	0.0
UCLF (%)												0.0	0.0
XUF (%)												0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

COMMERCIAL OPERATION(2005/12/08)

5. Historical Summary

Date of Construction Start: 07 Nov 2000 Lifetime Generation: 2928.0 GW(e).h
 Date of First Criticality: 24 Jan 2005 Cumulative Energy Availability Factor: 100.0%
 Date of Grid Connection: 09 Mar 2005 Cumulative Load Factor: 76.9%
 Date of Commercial Operation: 08 Dec 2005 Cumulative Unit Capability Factor: 100.0%
 Cumulative Energy Unavailability Factor: 0.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2005	610.5	1067.0	100.0	100.0	100.0	100.0	76.9	76.9	576	77.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2005 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External

The reactor has not yet completed a full year of commercial operation.

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2005 to 2005 Average Hours Lost Per Year

The reactor has not yet completed a full year of commercial operation.

JP-23 IKATA-1**Operator:** SHIKOKU (SHIKOKU ELECTRIC POWER CO.,INC)**Contractor:** MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 538.0 MW(e)

Design Net Capacity: 538.0 MW(e)

Design Discharge Burnup: 48000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4267.9 GW(e).h

Energy Availability Factor: 90.1%

Load Factor: 90.6%

Operating Factor: 90.7%

Energy Unavailability Factor: 9.9%

Total Off-line Time: 811 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	312.4	405.6	392.3	403.5	387.9	399.0	396.8	382.2	396.5	387.3	404.4	4267.9
EAF (%)	0.0	85.3	100.0	100.0	100.0	99.7	100.0	99.4	98.9	99.3	100.0	100.0	90.1
UCF (%)	0.0	85.3	100.0	100.0	100.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	90.3
LF (%)	0.0	86.4	101.3	101.4	100.8	100.2	99.7	99.1	98.7	98.9	100.0	101.0	90.6
OF (%)	0.0	90.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	90.7
EUF (%)	100.0	14.7	0.0	0.0	0.0	0.3	0.0	0.6	1.1	0.7	0.0	0.0	9.9
PUF (%)	86.5	4.7	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	7.7
UCLF (%)	13.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.1	0.7	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.REACTOR CORE INTERNAL
REPLACEMENT.(2004/09/05-2005/02/03)

5. Historical Summary

Date of Construction Start:	15 Jun 1973	Lifetime Generation:	104085.0 GW(e).h
Date of First Criticality:	29 Jan 1977	Cumulative Energy Availability Factor:	78.0%
Date of Grid Connection:	17 Feb 1977	Cumulative Load Factor:	78.0%
Date of Commercial Operation:	30 Sep 1977	Cumulative Unit Capability Factor:	78.2%
		Cumulative Energy Unavailability Factor:	22.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	1299.7	538.0	100.0	100.0	82.5	82.5	82.5	82.5	2680	91.5
1978	3138.0	538.0	66.6	75.0	66.6	70.6	66.6	70.6	6272	71.6
1979	2564.5	538.0	54.4	66.2	54.4	63.7	54.4	63.7	4984	56.9
1980	3127.4	538.0	66.2	66.2	66.2	64.4	66.2	64.4	6006	68.4
1981	3236.8	538.0	68.7	66.7	68.7	65.4	68.7	65.4	6253	71.4
1982	3527.3	538.0	74.8	68.3	74.8	67.2	74.8	67.2	6662	76.1
1983	4667.6	538.0	99.0	73.1	99.0	72.2	99.0	72.2	8754	99.9
1984	3318.2	538.0	70.5	72.8	70.5	72.0	70.2	71.9	6283	71.5
1985	3674.1	538.0	78.2	73.4	78.2	72.7	78.0	72.6	6962	79.5
1986	3719.6	538.0	79.2	74.0	79.2	73.4	78.9	73.3	7044	80.4
1987	4696.0	538.0	100.0	76.5	100.0	76.0	99.6	75.9	8760	100.0
1988	3533.9	538.0	75.0	76.4	75.0	75.9	74.8	75.8	6719	76.5
1989	3563.6	538.0	76.2	76.4	76.2	75.9	75.6	75.8	6791	77.5
1990	3632.2	538.0	76.4	76.4	76.4	75.9	77.1	75.9	6932	79.1
1991	4382.4	538.0	93.4	77.6	93.4	77.2	93.0	77.0	8184	93.4
1992	3675.4	538.0	78.5	77.6	78.5	77.3	77.8	77.1	6995	79.6
1993	3494.2	538.0	74.4	77.4	74.4	77.1	74.1	76.9	6630	75.7
1994	3601.3	538.0	76.6	77.4	76.6	77.0	76.4	76.9	6717	76.7
1995	3598.7	538.0	76.5	77.3	76.5	77.0	76.4	76.9	6815	77.8
1996	3579.1	538.0	75.9	77.3	75.9	77.0	75.7	76.8	6768	77.0
1997	4688.9	538.0	99.7	78.4	99.7	78.1	99.5	77.9	8760	100.0
1998	3239.2	538.0	68.9	77.9	68.9	77.7	68.7	77.5	6127	69.9
1999	3783.2	538.0	80.4	78.0	80.4	77.8	80.3	77.6	7051	80.5
2000	3194.1	538.0	67.7	77.6	67.7	77.3	67.6	77.2	5953	67.8
2001	4477.6	538.0	95.2	78.3	95.2	78.1	95.0	77.9	8412	96.0
2002	3527.9	538.0	74.2	78.2	74.2	77.9	74.9	77.8	6505	74.3
2003	3734.6	538.0	77.8	78.1	77.8	77.9	79.2	77.8	6819	77.8
2004	3249.6	538.0	67.6	77.8	67.6	77.5	68.8	77.5	5949	67.7
2005	4267.9	538.0	90.3	78.2	90.1	78.0	90.6	78.0	7949	90.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		168			34	
C. Inspection, maintenance or repair combined with refuelling	643			1680		
D. Inspection, maintenance or repair without refuelling				14		
J. Grid failure or grid unavailability						0
Z. Others					16	
Subtotal	643	168	0	1694	50	0
Total		811			1744	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	168	
12. Reactor I&C Systems		21
31. Turbine and auxiliaries		13
42. Electrical Power Supply Systems		0
Total	168	34

JP-32 IKATA-2

Operator: SHIKOKU (SHIKOKU ELECTRIC POWER CO.,INC)

Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 538.0 MW(e)

Design Net Capacity: 538.0 MW(e)

Design Discharge Burnup: 48000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3163.3 GW(e).h

Energy Availability Factor: 67.0%

Load Factor: 67.1%

Operating Factor: 67.2%

Energy Unavailability Factor: 33.0%

Total Off-line Time: 2870 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	362.6	363.6	403.6	390.1	400.8	387.2	397.8	395.3	62.5	0.0	0.0	0.0	3163.3
EAF (%)	90.4	100.0	100.0	100.0	99.7	100.0	99.7	99.1	16.4	0.1	0.0	0.0	67.0
UCF (%)	90.4	100.0	100.0	100.0	99.7	100.0	99.7	100.0	16.4	0.1	0.0	0.0	67.1
LF (%)	90.6	100.6	100.8	100.8	100.1	100.0	99.4	98.8	16.1	0.0	0.0	0.0	67.1
OF (%)	91.7	100.0	100.0	100.1	100.0	100.0	100.0	100.0	16.7	0.0	0.0	0.0	67.2
EUF (%)	9.6	0.0	0.0	0.0	0.3	0.0	0.3	0.9	83.6	99.9	100.0	100.0	33.0
PUF (%)	9.6	0.0	0.0	0.0	0.3	0.0	0.3	0.0	83.6	99.9	100.0	100.0	32.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.REACTOR CORE INTERNAL REPLACEMENT. (2005/09/06-)

5. Historical Summary

Date of Construction Start: 21 Feb 1978 Lifetime Generation: 92185.0 GW(e).h

Date of First Criticality: 31 Jul 1981 Cumulative Energy Availability Factor: 82.2%

Date of Grid Connection: 19 Aug 1981 Cumulative Load Factor: 82.1%

Date of Commercial Operation: 19 Mar 1982 Cumulative Unit Capability Factor: 82.3%

Cumulative Energy Unavailability Factor: 17.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	3893.9	538.0	98.6	98.6	98.6	98.6	98.6	98.6	7327	99.8
1983	3575.0	538.0	75.9	86.2	75.9	86.2	75.9	86.2	6798	77.6
1984	3776.6	538.0	80.3	84.1	80.1	84.1	79.9	84.0	7157	81.5
1985	3694.1	538.0	78.6	82.7	78.6	82.6	78.4	82.5	6995	79.9
1986	4698.6	538.0	100.0	86.3	100.0	86.2	99.7	86.1	8760	100.0
1987	3758.7	538.0	80.5	85.3	80.5	85.3	79.8	85.0	7137	81.5
1988	3541.5	538.0	75.1	83.8	75.1	83.8	74.9	83.5	6743	76.8
1989	3751.3	538.0	79.8	83.3	79.8	83.3	79.6	83.0	7128	81.4
1990	4694.9	538.0	99.9	85.2	99.9	85.2	99.6	84.9	8760	100.0
1991	3526.2	538.0	75.2	84.2	75.2	84.1	74.8	83.9	6731	76.8
1992	3479.9	538.0	74.3	83.3	74.3	83.2	73.6	82.9	6639	75.6
1993	3588.6	538.0	76.4	82.7	76.4	82.7	76.1	82.4	6799	77.6
1994	4700.6	538.0	99.9	84.0	99.9	84.0	99.7	83.7	8760	100.0
1995	3720.9	538.0	79.0	83.7	79.0	83.6	79.0	83.4	7014	80.1
1996	3664.8	538.0	77.7	83.3	77.7	83.2	77.5	83.0	6935	79.0
1997	3610.4	538.0	76.8	82.8	76.8	82.8	76.6	82.6	6831	78.0
1998	4701.1	538.0	99.9	83.9	99.9	83.8	99.7	83.6	8760	100.0
1999	3734.4	538.0	79.5	83.6	79.5	83.6	79.2	83.3	6973	79.6
2000	3695.0	538.0	78.3	83.3	78.3	83.3	78.2	83.1	6888	78.4
2001	3145.7	538.0	66.9	82.5	66.9	82.5	66.7	82.2	5875	67.1
2002	4718.5	538.0	99.2	83.3	99.2	83.3	100.1	83.1	8698	99.3
2003	3904.7	538.0	81.6	83.2	81.6	83.2	82.9	83.1	7150	81.6
2004	3611.9	538.0	76.1	82.9	75.8	82.9	76.4	82.8	6683	76.1
2005	3163.3	538.0	67.1	82.3	67.0	82.2	67.1	82.1	5890	67.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
C. Inspection, maintenance or repair combined with refuelling	2812			1378		
G. Major back-fitting, refurbishment or upgrading activities without refuelling	80			3		
J. Grid failure or grid unavailability						0
Subtotal	2892	0	0	1381	0	0
Total	2892			1381		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year

The reactor has not yet completed a full year of commercial operation.

JP-47 IKATA-3**Operator:** SHIKOKU (SHIKOKU ELECTRIC POWER CO.,INC)**Contractor:** MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 846.0 MW(e)

Design Net Capacity: 846.0 MW(e)

Design Discharge Burnup: 48000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6699.4 GW(e).h

Energy Availability Factor: 86.8%

Load Factor: 90.4%

Operating Factor: 87.2%

Energy Unavailability Factor: 13.2%

Total Off-line Time: 1123 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	664.2	255.9	0.5	613.0	656.7	635.0	653.8	651.1	627.7	650.8	634.5	656.3	6699.4
EAF (%)	100.0	42.6	0.1	96.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.8
UCF (%)	100.0	42.6	0.1	96.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.8
LF (%)	105.5	45.0	0.1	100.8	104.3	104.2	103.9	103.4	103.0	103.3	104.2	104.3	90.4
OF (%)	100.0	42.9	0.7	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	87.2
EUF (%)	0.0	57.4	99.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2
PUF (%)	0.0	57.4	99.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Nov 1986 **Lifetime Generation:** 71964.0 GW(e).h

Date of First Criticality: 23 Feb 1994 **Cumulative Energy Availability Factor:** 85.8%

Date of Grid Connection: 29 Mar 1994 **Cumulative Load Factor:** 87.9%

Date of Commercial Operation: 15 Dec 1994 **Cumulative Unit Capability Factor:** 85.8%

Cumulative Energy Unavailability Factor: 14.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1994	636.8	846.0	100.0	100.0	100.0	100.0	101.2	101.2	744	100.0
1995	7491.8	846.0	100.0	100.0	100.0	100.0	101.1	101.1	8760	100.0
1996	5578.2	846.0	74.2	87.6	74.2	87.6	75.1	88.6	6621	75.4
1997	6134.7	846.0	81.9	85.8	81.9	85.8	82.8	86.7	7242	82.7
1998	6250.4	846.0	83.4	85.2	83.4	85.2	84.3	86.1	7374	84.2
1999	6298.4	846.0	84.1	85.0	84.1	85.0	85.0	85.9	7368	84.1
2000	6660.3	846.0	88.7	85.6	88.7	85.6	89.6	86.5	7790	88.7
2001	6210.7	846.0	82.9	85.2	82.9	85.2	83.8	86.1	7267	83.0
2002	6599.5	846.0	85.8	85.3	85.8	85.3	89.1	86.5	7518	85.8
2003	5862.1	846.0	74.9	84.1	74.9	84.1	79.1	85.7	6560	74.9
2004	7828.9	846.0	100.0	85.7	100.0	85.7	105.4	87.6	8784	100.0
2005	6699.4	846.0	86.8	85.8	86.8	85.8	90.4	87.9	7637	87.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1996 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	1195			1120	118	
Subtotal	1195	0	0	1120	118	0
Total	1195			1238		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1996 to 2005 Average Hours Lost Per Year
41. Main Generator Systems		24
42. Electrical Power Supply Systems		94
Total	0	118

JP-33 KASHIWAZAKI KARIWA-1**Operator:** TEPCO (TOKYO ELECTRIC POWER CO.,INC.)**Contractor:** TOSHIBA (TOSHIBA CORPORATION)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1067.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3125.9 GW(e).h

Energy Availability Factor: 33.5%

Load Factor: 33.4%

Operating Factor: 34.8%

Energy Unavailability Factor: 66.5%

Total Off-line Time: 5709 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	801.4	78.3	449.2	731.1	748.1	317.8	0.0	0.0	0.0	0.0	0.0	0.0	3125.9
EAF (%)	100.0	12.9	57.1	94.3	93.9	42.1	0.0	0.0	0.0	0.1	0.0	0.0	33.5
UCF (%)	100.0	12.9	57.2	94.3	93.9	42.1	0.0	0.0	0.0	0.1	0.0	0.0	33.5
LF (%)	100.9	10.9	56.6	95.3	94.2	41.4	0.0	0.0	0.0	0.0	0.0	0.0	33.4
OF (%)	100.0	13.7	59.0	100.1	100.0	43.3	0.0	0.0	0.0	0.0	0.0	0.0	34.8
EUF (%)	0.0	87.1	42.9	5.7	6.1	57.9	100.0	100.0	100.0	99.9	100.0	100.0	66.5
PUF (%)	0.0	0.0	0.0	0.1	0.3	57.9	100.0	100.0	100.0	99.9	100.0	100.0	55.2
UCLF (%)	0.0	87.1	42.9	5.6	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 05 Jun 1980 **Lifetime Generation:** 139771.0 GW(e).h

Date of First Criticality: 12 Dec 1984 **Cumulative Energy Availability Factor:** 73.5%

Date of Grid Connection: 13 Feb 1985 **Cumulative Load Factor:** 72.4%

Date of Commercial Operation: 18 Sep 1985 **Cumulative Unit Capability Factor:** 73.5%

Cumulative Energy Unavailability Factor: 26.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	2939.8	1067.0	100.0	100.0	100.0	100.0	94.1	94.1	2808	95.9
1986	6703.7	1067.0	73.0	79.8	73.0	79.8	71.7	77.3	6463	73.8
1987	9195.5	1067.0	100.0	88.4	100.0	88.4	98.4	86.3	8760	100.0
1988	6959.7	1067.0	75.0	84.4	75.0	84.4	74.3	82.7	6660	75.8
1989	6442.3	1067.0	69.7	81.0	69.7	81.0	68.9	79.5	6236	71.2
1990	5987.4	1067.0	65.0	78.0	65.0	78.0	64.1	76.6	5711	65.2
1991	9031.6	1067.0	97.9	81.1	97.9	81.1	96.6	79.8	8618	98.4
1992	6958.1	1067.0	75.8	80.4	75.4	80.4	74.2	79.0	6728	76.6
1993	6874.3	1067.0	74.7	79.7	74.7	79.7	73.5	78.4	6575	75.1
1994	7020.2	1067.0	76.1	79.3	76.1	79.3	75.1	78.0	6744	77.0
1995	9235.2	1067.0	100.0	81.3	100.0	81.3	98.8	80.0	8760	100.0
1996	6814.4	1067.0	73.6	80.7	73.6	80.6	72.7	79.4	6469	73.6
1997	7899.9	1067.0	85.7	81.1	85.7	81.0	84.5	79.8	7525	85.9
1998	6176.2	1067.0	67.4	80.0	67.4	80.0	66.1	78.8	5960	68.0
1999	9198.8	1067.0	99.7	81.4	99.7	81.4	98.4	80.1	8760	100.0
2000	7714.7	1067.0	83.6	81.6	83.6	81.5	82.3	80.3	7346	83.6
2001	7070.5	1067.0	76.9	81.3	76.9	81.2	75.6	80.0	6743	77.0
2002	5906.2	1067.0	64.2	80.3	64.2	80.3	63.2	79.0	5628	64.2
2003	0.0	1067.0	0.0	75.9	0.0	75.9	0.0	74.7	0	0.0
2004	6496.7	1067.0	69.2	75.6	69.2	75.5	69.3	74.4	6171	70.3
2005	3125.9	1067.0	33.5	73.5	33.5	73.5	33.4	72.4	3051	34.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		946			367	
C. Inspection, maintenance or repair combined with refuelling	4831			1540		
D. Inspection, maintenance or repair without refuelling				43		
Z. Others					91	
Subtotal	4831	946	0	1583	458	0
Total	5777			2041		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		61
15. Reactor Cooling Systems		246
21. Fuel Handling and Storage Facilities		48
32. Feedwater and Main Steam System	946	
41. Main Generator Systems		11
Total	946	366

JP-39 KASHIWAZAKI KARIWA-2**Operator:** TEPCO (TOKYO ELECTRIC POWER CO.,INC.)**Contractor:** TOSHIBA (TOSHIBA CORPORATION)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1067.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6388.4 GW(e).h

Energy Availability Factor: 68.4%

Load Factor: 68.3%

Operating Factor: 68.9%

Energy Unavailability Factor: 31.6%

Total Off-line Time: 2725 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	799.5	722.0	799.1	770.4	797.0	770.2	790.0	784.8	35.6	0.0	0.0	119.7	6388.4
EAF (%)	100.0	100.0	100.0	99.9	100.0	99.9	99.5	99.3	5.8	0.1	0.0	17.4	68.4
UCF (%)	100.0	100.0	100.0	99.9	100.0	99.9	99.5	99.3	5.9	0.1	0.0	17.4	68.4
LF (%)	100.7	100.7	100.7	100.4	100.4	100.3	99.5	98.9	4.6	0.0	0.0	15.1	68.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	6.7	0.0	0.0	20.8	68.9
EUF (%)	0.0	0.0	0.0	0.1	0.0	0.1	0.5	0.7	94.2	99.9	100.0	82.6	31.6
PUF (%)	0.0	0.0	0.0	0.1	0.0	0.1	0.5	0.7	94.1	99.9	100.0	82.6	31.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 18 Nov 1985 **Lifetime Generation:** 109718.0 GW(e).h

Date of First Criticality: 30 Nov 1989 **Cumulative Energy Availability Factor:** 74.9%

Date of Grid Connection: 08 Feb 1990 **Cumulative Load Factor:** 73.8%

Date of Commercial Operation: 28 Sep 1990 **Cumulative Unit Capability Factor:** 74.9%

Cumulative Energy Unavailability Factor: 25.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	2935.8	1067.0	100.0	100.0	100.0	100.0	94.0	94.0	2813	96.1
1991	6642.4	1067.0	72.4	79.3	72.4	79.3	71.1	76.8	6440	73.5
1992	9046.9	1067.0	97.9	87.3	97.9	87.3	96.5	85.3	8623	98.2
1993	7212.6	1067.0	78.5	84.7	78.3	84.6	77.2	82.8	6911	78.9
1994	7291.1	1067.0	79.0	83.4	79.0	83.3	78.0	81.7	6962	79.5
1995	7696.8	1067.0	83.4	83.4	83.4	83.3	82.3	81.8	7329	83.7
1996	8811.1	1067.0	95.3	85.3	95.2	85.2	94.0	83.8	8396	95.6
1997	7284.4	1067.0	79.1	84.4	79.1	84.4	77.9	83.0	6913	78.9
1998	8142.1	1067.0	88.4	84.9	88.4	84.9	87.1	83.5	7769	88.7
1999	8208.8	1067.0	89.2	85.4	89.1	85.3	87.8	83.9	7814	89.2
2000	8140.0	1067.0	88.3	85.6	88.3	85.6	86.8	84.2	7760	88.3
2001	7595.5	1067.0	82.4	85.4	82.4	85.3	81.3	84.0	7223	82.5
2002	5866.2	1067.0	63.1	83.6	63.1	83.5	62.8	82.2	5532	63.2
2003	0.0	1067.0	0.0	77.3	0.0	77.3	0.0	76.1	0	0.0
2004	4660.3	1067.0	49.6	75.4	49.6	75.3	49.7	74.2	4361	49.6
2005	6388.4	1067.0	68.4	74.9	68.4	74.9	68.3	73.8	6035	68.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1991 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					435	
B. Refuelling without a maintenance					12	
C. Inspection, maintenance or repair combined with refuelling	2888			1504		
D. Inspection, maintenance or repair without refuelling				16		
Z. Others					83	
Subtotal	2888	0	0	1520	530	0
Total	2888			2050		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1991 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		14
15. Reactor Cooling Systems		386
31. Turbine and auxiliaries		34
Total	0	434

JP-52 KASHIWAZAKI KARIWA-3**Operator:** TEPCO (TOKYO ELECTRIC POWER CO.,INC.)**Contractor:** TOSHIBA (TOSHIBA CORPORATION)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1067.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6061.7 GW(e).h

Energy Availability Factor: 64.9%

Load Factor: 64.9%

Operating Factor: 65.9%

Energy Unavailability Factor: 35.1%

Total Off-line Time: 2988 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	428.4	0.0	0.0	0.0	430.7	770.1	793.1	789.5	766.4	536.9	772.4	774.3	6061.7
EAF (%)	54.2	0.0	0.0	-0.1	51.9	99.9	100.0	100.0	100.0	68.3	100.0	100.0	64.9
UCF (%)	54.2	0.0	0.0	-0.1	51.9	100.0	100.0	100.0	100.0	68.3	100.0	100.0	64.9
LF (%)	54.0	0.0	0.0	0.0	54.2	100.2	99.9	99.4	99.8	67.5	100.5	97.5	64.9
OF (%)	54.8	0.0	0.0	0.0	59.4	100.0	100.0	100.0	100.0	71.1	100.0	100.0	65.9
EUF (%)	45.8	100.0	100.0	100.1	48.1	0.1	0.0	0.0	0.0	31.7	0.0	0.0	35.1
PUF (%)	45.8	100.0	100.0	100.1	41.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	31.8
UCLF (%)	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	31.7	0.0	0.0	3.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 07 Mar 1989 **Lifetime Generation:** 87892.0 GW(e).h

Date of First Criticality: 19 Oct 1992 **Cumulative Energy Availability Factor:** 74.1%

Date of Grid Connection: 08 Dec 1992 **Cumulative Load Factor:** 73.4%

Date of Commercial Operation: 11 Aug 1993 **Cumulative Unit Capability Factor:** 74.1%

Cumulative Energy Unavailability Factor: 25.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	3875.8	1067.0	100.0	100.0	100.0	100.0	98.9	98.9	3672	100.0
1994	7264.4	1067.0	78.9	85.1	78.9	85.1	77.7	84.0	6961	79.5
1995	9253.9	1067.0	100.0	91.3	100.0	91.3	99.0	90.2	8760	100.0
1996	7921.6	1067.0	85.5	89.6	85.5	89.6	84.5	88.5	7508	85.5
1997	8016.2	1067.0	86.8	88.9	86.8	88.9	85.8	87.9	7601	86.8
1998	6748.0	1067.0	73.1	86.0	73.1	86.0	72.2	85.0	6467	73.8
1999	9028.3	1067.0	97.7	87.8	97.7	87.8	96.6	86.8	8568	97.8
2000	7945.1	1067.0	85.8	87.6	85.8	87.6	84.8	86.5	7539	85.8
2001	6985.7	1067.0	75.8	86.2	75.8	86.2	74.7	85.1	6639	75.8
2002	5575.5	1067.0	60.4	83.4	60.4	83.4	59.7	82.4	5300	60.5
2003	0.0	1067.0	0.0	75.4	0.0	75.4	0.0	74.5	0	0.0
2004	6550.0	1067.0	69.9	74.9	69.9	74.9	69.9	74.1	6093	69.4
2005	6061.7	1067.0	64.9	74.1	64.9	74.1	64.9	73.4	5772	65.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		319			671	
C. Inspection, maintenance or repair combined with refuelling	2767			1303		
Z. Others		92			108	
Subtotal	2767	411	0	1303	779	0
Total		3178			2082	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		652
15. Reactor Cooling Systems	319	19
Total	319	671

1. Station Details

2. Production Summary 2005

3. 2005 Monthly Performance Data

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1994	3869.5	1067.0	99.8	99.8	99.8	99.8	98.8	98.8	3672	100.0
1995	6182.5	1067.0	67.0	76.7	67.0	76.7	66.1	75.8	5889	67.2
1996	8068.0	1067.0	87.1	81.0	87.1	81.0	86.1	80.0	7651	87.1
1997	7516.7	1067.0	81.7	81.2	81.5	81.1	80.4	80.2	7207	82.3
1998	9258.7	1067.0	100.0	85.4	100.0	85.4	99.1	84.4	8760	100.0
1999	8141.7	1067.0	88.1	85.9	88.1	85.9	87.1	84.9	7719	88.1
2000	6918.9	1067.0	75.1	84.2	75.1	84.2	73.8	83.2	6602	75.2
2001	5591.4	1067.0	60.6	81.1	60.6	81.0	59.8	80.0	5343	61.0
2002	9239.9	1067.0	100.0	83.3	99.9	83.3	98.9	82.3	8760	100.0
2003	4185.8	1067.0	45.0	79.2	45.0	79.2	44.8	78.3	3946	45.0
2004	5623.7	1067.0	59.9	77.4	59.9	77.3	60.0	76.5	5258	59.9
2005	7192.0	1067.0	76.8	77.3	76.8	77.3	76.9	76.6	6755	77.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1995 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					554	
C. Inspection, maintenance or repair combined with refuelling	1824	286		1254		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					57	
Subtotal	1824	286	0	1254	611	0
Total		2110			1865	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1995 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		52
15. Reactor Cooling Systems		208
31. Turbine and auxiliaries		45
41. Main Generator Systems		170
42. Electrical Power Supply Systems		78
Total	0	553

JP-40 KASHIWAZAKI KARIWA-5**Operator:** TEPCO (TOKYO ELECTRIC POWER CO.,INC.)**Contractor:** HITACHI (HITACHI LTD.)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1067.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6852.9 GW(e).h

Energy Availability Factor: 73.0%

Load Factor: 73.3%

Operating Factor: 73.6%

Energy Unavailability Factor: 27.0%

Total Off-line Time: 2314 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	799.7	722.2	799.8	773.3	798.0	767.9	57.8	0.0	0.0	558.0	775.0	801.2	6852.9
EAF (%)	100.0	100.0	100.0	99.9	99.9	99.9	8.4	0.0	0.0	70.8	100.0	100.0	73.0
UCF (%)	100.0	100.0	100.0	99.9	99.9	99.9	8.4	0.0	0.0	70.8	100.0	100.0	73.0
LF (%)	100.7	100.7	100.7	100.8	100.5	100.0	7.3	0.0	0.0	70.2	100.9	100.9	73.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	8.5	0.0	0.0	77.2	100.0	100.0	73.6
EUF (%)	0.0	0.0	0.0	0.1	0.1	0.1	91.6	100.0	100.0	29.2	0.0	0.0	27.0
PUF (%)	0.0	0.0	0.0	0.1	0.1	0.1	90.3	100.0	100.0	19.3	0.0	0.0	26.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	9.8	0.0	0.0	0.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 20 Jun 1985 **Lifetime Generation:** 117797.0 GW(e).h

Date of First Criticality: 20 Jul 1989 **Cumulative Energy Availability Factor:** 79.4%

Date of Grid Connection: 12 Sep 1989 **Cumulative Load Factor:** 78.6%

Date of Commercial Operation: 10 Apr 1990 **Cumulative Unit Capability Factor:** 79.4%

Cumulative Energy Unavailability Factor: 20.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	6953.3	1067.0	100.0	100.0	100.0	100.0	98.7	98.7	6600	100.0
1991	7093.3	1067.0	76.7	86.7	76.7	86.7	75.9	85.7	6789	77.5
1992	6977.5	1067.0	75.5	82.6	75.5	82.6	74.4	81.6	6715	76.4
1993	9238.2	1067.0	99.9	87.2	99.9	87.2	98.8	86.2	8760	100.0
1994	7154.7	1067.0	77.5	85.2	77.5	85.2	76.5	84.2	6825	77.9
1995	7508.3	1067.0	81.5	84.5	81.5	84.5	80.3	83.5	7183	82.0
1996	7905.8	1067.0	85.6	84.7	85.6	84.7	84.4	83.6	7524	85.7
1997	8919.1	1067.0	96.6	86.2	96.6	86.2	95.4	85.1	8472	96.7
1998	7352.6	1067.0	79.6	85.5	79.6	85.5	78.7	84.4	6995	79.9
1999	7771.8	1067.0	84.3	85.4	84.3	85.4	83.1	84.3	7383	84.3
2000	7042.7	1067.0	76.4	84.5	76.3	84.5	75.1	83.4	6712	76.4
2001	9198.6	1067.0	99.6	85.8	99.6	85.8	98.4	84.7	8760	100.0
2002	8191.0	1067.0	88.3	86.0	88.3	86.0	87.6	84.9	7743	88.4
2003	1503.1	1067.0	16.1	80.9	16.1	80.9	16.1	79.9	1392	15.9
2004	6134.8	1067.0	65.3	79.9	65.3	79.8	65.5	78.9	5738	65.3
2005	6852.9	1067.0	73.0	79.4	73.0	79.4	73.3	78.6	6446	73.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1991 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		163			330	
C. Inspection, maintenance or repair combined with refuelling	2280			1310		
D. Inspection, maintenance or repair without refuelling				15		
Z. Others					65	
Subtotal	2280	163	0	1325	395	0
Total	2443			1720		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1991 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems	163	321
31. Turbine and auxiliaries		8
Total	163	329

JP-55 KASHIWAZAKI KARIWA-6**Operator:** TEPCO (TOKYO ELECTRIC POWER CO.,INC.)**Contractor:** TOSHIBA (TOSHIBA CORPORATION)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1315.0 MW(e)

Design Net Capacity: 1315.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 11126.5 GW(e).h

Energy Availability Factor: 93.9%

Load Factor: 96.6%

Operating Factor: 94.0%

Energy Unavailability Factor: 6.1%

Total Off-line Time: 528 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1013.8	916.2	1014.6	981.4	1013.1	976.4	1001.8	993.6	963.9	1000.1	975.4	276.3	11126.5
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.9	28.1	93.9
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.9	28.1	93.9
LF (%)	103.6	103.7	103.7	103.8	103.5	103.1	102.4	101.6	101.8	102.1	103.0	28.2	96.6
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	29.0	94.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	71.9	6.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	71.9	6.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 03 Nov 1992 **Lifetime Generation:** 94484.0 GW(e).h

Date of First Criticality: 18 Dec 1995 **Cumulative Energy Availability Factor:** 85.5%

Date of Grid Connection: 29 Jan 1996 **Cumulative Load Factor:** 86.0%

Date of Commercial Operation: 07 Nov 1996 **Cumulative Unit Capability Factor:** 85.5%

Cumulative Energy Unavailability Factor: 14.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1996	1920.8	1315.0	100.0	100.0	100.0	100.0	99.8	99.8	1464	100.0
1997	10161.5	1315.0	88.4	90.1	88.4	90.1	88.2	89.9	7752	88.5
1998	10702.3	1315.0	93.3	91.6	93.3	91.6	92.9	91.3	8217	93.8
1999	9710.4	1315.0	84.8	89.4	84.8	89.4	84.3	89.1	7480	85.4
2000	9411.6	1315.0	81.8	87.6	81.8	87.6	81.5	87.2	7183	81.8
2001	9270.0	1315.0	80.7	86.3	80.7	86.3	80.5	85.9	7079	80.8
2002	11504.1	1315.0	100.0	88.5	100.0	88.5	99.9	88.2	8760	100.0
2003	8401.2	1315.0	71.5	86.1	71.5	86.1	72.9	86.1	6163	70.4
2004	8635.2	1315.0	72.7	84.5	72.7	84.5	74.8	84.7	6410	73.0
2005	11126.5	1315.0	93.9	85.5	93.9	85.5	96.6	86.0	8232	94.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1997 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					81	
C. Inspection, maintenance or repair combined with refuelling	539			967		
Z. Others					180	
Subtotal	539	0	0	967	261	0
Total	539			1228		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1997 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		9
21. Fuel Handling and Storage Facilities		37
41. Main Generator Systems		23
42. Electrical Power Supply Systems		11
Total	0	80

JP-56 KASHIWAZAKI KARIWA-7**Operator:** TEPCO (TOKYO ELECTRIC POWER CO.,INC.)**Contractor:** HITACHI (HITACHI LTD.)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1315.0 MW(e)

Design Net Capacity: 1315.0 MW(e)

Design Discharge Burnup: 39500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7977.5 GW(e).h

Energy Availability Factor: 68.0%

Load Factor: 69.3%

Operating Factor: 68.6%

Energy Unavailability Factor: 32.0%

Total Off-line Time: 2753 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	1001.0	894.8	0.0	0.0	0.0	163.9	995.2	989.8	960.8	997.6	970.7	1003.6	7977.5
EAF (%)	99.7	98.8	0.0	-0.1	0.0	18.8	100.0	100.0	100.0	100.0	100.0	100.0	68.0
UCF (%)	99.8	98.8	0.0	-0.1	0.0	18.8	100.0	100.0	100.0	100.0	100.0	100.0	68.0
LF (%)	102.3	101.3	0.0	0.0	0.0	17.3	101.7	101.2	101.5	101.8	102.5	102.6	69.3
OF (%)	100.0	100.0	0.0	0.0	0.0	24.3	100.0	100.0	100.0	99.9	100.0	100.0	68.6
EUF (%)	0.3	1.2	100.0	100.1	100.0	81.2	0.0	0.0	0.0	0.0	0.0	0.0	32.0
PUF (%)	0.3	1.2	100.0	100.1	100.0	57.9	0.0	0.0	0.0	0.0	0.0	0.0	30.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	1.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Jul 1993 **Lifetime Generation:** 80157.0 GW(e).h

Date of First Criticality: 01 Nov 1996 **Cumulative Energy Availability Factor:** 79.0%

Date of Grid Connection: 17 Dec 1996 **Cumulative Load Factor:** 79.4%

Date of Commercial Operation: 02 Jul 1997 **Cumulative Unit Capability Factor:** 79.4%

Cumulative Energy Unavailability Factor: 21.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1997	5792.8	1315.0	100.0	100.0	100.0	100.0	99.8	99.8	4416	100.0
1998	9715.6	1315.0	84.7	89.8	84.7	89.8	84.3	89.5	7452	85.1
1999	8445.4	1315.0	73.7	83.4	73.7	83.4	73.3	83.0	6458	73.7
2000	11240.2	1315.0	97.6	87.4	97.6	87.4	97.3	87.1	8587	97.8
2001	10078.4	1315.0	87.8	87.5	87.8	87.5	87.5	87.2	7752	88.5
2002	7990.0	1315.0	69.5	84.2	68.9	84.1	69.4	84.0	6089	69.5
2003	5778.5	1315.0	49.2	78.9	49.2	78.8	50.2	78.8	4302	49.1
2004	10805.2	1315.0	94.5	80.9	91.6	80.5	93.5	80.7	8057	91.7
2005	7977.5	1315.0	68.0	79.4	68.0	79.0	69.3	79.4	6007	68.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1998 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		345			347	
C. Inspection, maintenance or repair combined with refuelling	2602			1035		
D. Inspection, maintenance or repair without refuelling				120		
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						31
Z. Others					48	
Subtotal	2602	345	0	1155	395	31
Total		2947			1581	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1998 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		135
12. Reactor I&C Systems		117
15. Reactor Cooling Systems	345	94
Total	345	346

JP-4 MIHAMA-1

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 320.0 MW(e)
Design Net Capacity: 320.0 MW(e)
Design Discharge Burnup: 31500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1194.9 GW(e).h
Energy Availability Factor: 41.4%
Load Factor: 42.6%
Operating Factor: 45.9%
Energy Unavailability Factor: 58.6%
Total Off-line Time: 4738 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	198.8	29.2	170.4	195.1	0.0	0.0	0.0	39.0	172.5	0.0	142.6	247.3	1194.9
EAF (%)	80.5	13.1	69.0	82.2	0.0	0.0	0.0	16.3	74.5	0.1	59.9	99.9	41.4
UCF (%)	80.6	13.1	69.0	82.2	0.0	0.0	0.0	16.3	74.6	0.1	59.9	99.9	41.4
LF (%)	83.5	13.6	71.6	84.8	0.0	0.0	0.0	16.4	74.9	0.0	61.9	103.9	42.6
OF (%)	100.0	13.8	72.2	82.9	0.0	0.0	0.0	20.3	96.1	0.0	64.6	100.0	45.9
EUF (%)	19.5	86.9	31.0	17.8	100.0	100.0	100.0	83.7	25.5	99.9	40.1	0.1	58.6
PUF (%)	0.1	0.1	0.0	17.8	100.0	86.7	0.0	4.0	0.0	0.0	0.0	0.1	17.4
UCLF (%)	19.4	86.8	31.0	0.0	0.0	13.3	100.0	79.7	25.5	99.9	40.2	0.0	41.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/04/25-2005/08/28)

5. Historical Summary

Date of Construction Start:	01 Feb 1967	Lifetime Generation:	50196.0 GW(e).h
Date of First Criticality:	29 Jul 1970	Cumulative Energy Availability Factor:	49.2%
Date of Grid Connection:	08 Aug 1970	Cumulative Load Factor:	50.9%
Date of Commercial Operation:	28 Nov 1970	Cumulative Unit Capability Factor:	55.2%
		Cumulative Energy Unavailability Factor:	50.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1970	337.0	340.0	100.0	100.0	67.7	67.7	67.7	67.7	1017	69.5
1971	1953.8	340.0	100.0	100.0	65.6	65.9	65.6	65.9	5977	68.2
1972	1260.0	320.0	100.0	100.0	47.4	57.6	44.8	56.5	4156	47.3
1973	945.3	320.0	56.4	86.6	47.9	54.6	33.7	49.5	4865	55.5
1974	391.8	320.0	24.6	71.9	20.9	46.7	14.0	41.1	2151	24.6
1975	0.0	320.0	0.0	58.2	0.0	37.8	0.0	33.3	0	0.0
1976	0.0	320.0	0.0	48.9	0.0	31.7	0.0	27.9	0	0.0
1977	0.0	320.0	100.0	55.9	0.0	27.3	0.0	24.1	0	0.0
1978	118.7	320.0	4.2	49.7	4.2	24.5	4.2	21.7	1059	12.1
1979	115.4	320.0	4.1	44.7	4.1	22.3	4.1	19.8	1014	11.6
1980	1012.9	320.0	36.0	43.9	36.0	23.7	36.0	21.4	4472	50.9
1981	1178.1	320.0	42.0	43.7	42.0	25.3	42.0	23.2	3931	44.9
1982	92.8	320.0	3.3	40.4	3.3	23.5	3.3	21.6	455	5.2
1983	1164.4	320.0	41.5	40.5	41.5	24.9	41.5	23.1	3731	42.6
1984	1576.6	320.0	56.0	41.6	56.0	27.1	56.1	25.4	5053	57.5
1985	2240.2	320.0	80.0	44.1	80.0	30.5	79.9	29.0	7077	80.8
1986	2707.2	320.0	96.6	47.3	96.3	34.6	96.6	33.1	8482	96.8
1987	2261.5	320.0	81.6	49.3	81.6	37.3	80.7	35.9	7150	81.6
1988	2075.4	320.0	75.4	50.8	75.4	39.4	73.8	38.0	6623	75.4
1989	1693.2	320.0	61.8	51.3	61.8	40.6	60.4	39.1	5418	61.8
1990	1938.2	320.0	66.9	52.1	66.9	41.9	69.1	40.6	6058	69.2
1991	2371.9	320.0	8.8	50.1	4.5	40.1	84.6	42.7	7615	86.9
1992	1041.1	320.0	37.2	49.5	37.2	40.0	37.0	42.4	3511	40.0
1993	1663.3	320.0	58.5	49.9	58.5	40.8	59.3	43.2	5300	60.5
1994	369.9	320.0	13.4	48.4	13.4	39.6	13.2	41.9	1160	13.2
1995	0.0	320.0	0.0	46.5	0.0	38.1	0.0	40.3	0	0.0
1996	2245.9	320.0	79.7	47.7	79.7	39.7	79.9	41.8	7186	81.8
1997	2271.5	320.0	80.8	48.9	80.8	41.2	81.0	43.2	7083	80.9
1998	2321.5	320.0	82.5	50.1	82.5	42.6	82.8	44.6	7304	83.4
1999	2530.4	320.0	90.0	51.5	90.0	44.3	90.3	46.2	8013	91.5
2000	2381.2	320.0	84.6	52.6	84.5	45.6	84.7	47.5	7439	84.7
2001	2104.4	320.0	75.0	53.3	74.9	46.5	75.1	48.3	6574	75.0
2002	2158.6	320.0	77.1	54.0	76.6	47.5	77.0	49.2	6767	77.2
2003	2880.6	320.0	99.9	55.4	99.9	49.0	102.8	50.8	8760	100.0
2004	1764.2	320.0	61.3	55.6	61.3	49.4	62.8	51.2	5389	61.4
2005	1194.9	320.0	41.4	55.2	41.4	49.2	42.6	50.9	4022	45.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		2359			1773	
C. Inspection, maintenance or repair combined with refuelling	1558			1804		
D. Inspection, maintenance or repair without refuelling				314		
E. Testing of plant systems or components				0	4	
J. Grid failure or grid unavailability						1
Z. Others		1008			62	
Subtotal	1558	3367	0	2118	1839	1
Total		4925			3958	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems		7
15. Reactor Cooling Systems	1090	20
16. Steam generation systems		1602
31. Turbine and auxiliaries	844	95
32. Feedwater and Main Steam System	425	33
42. Electrical Power Supply Systems		0
Total	2359	1764

JP-6 MIHAMA-2

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 470.0 MW(e)
Design Net Capacity: 470.0 MW(e)
Design Discharge Burnup: 33300 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3525.4 GW(e).h
Energy Availability Factor: 84.8%
Load Factor: 85.6%
Operating Factor: 85.3%
Energy Unavailability Factor: 15.2%
Total Off-line Time: 1290 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	90.9	0.0	313.0	347.1	357.8	341.0	347.8	341.9	335.0	351.4	342.7	356.7	3525.4
EAF (%)	25.4	0.0	87.3	99.9	99.9	99.9	99.9	99.8	99.9	99.9	99.9	99.9	84.8
UCF (%)	25.4	0.0	87.3	99.9	99.9	99.9	99.9	99.8	99.9	99.9	99.9	99.9	84.8
LF (%)	26.0	0.0	89.5	102.7	102.3	100.8	99.5	97.8	99.0	100.4	101.3	102.0	85.6
OF (%)	25.9	0.0	91.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	85.3
EUf (%)	74.6	100.0	12.7	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	15.2
PUF (%)	74.6	100.0	12.7	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	15.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/01/08-2005/03-06)

5. Historical Summary

Date of Construction Start: 29 May 1968
Date of First Criticality: 10 Apr 1972
Date of Grid Connection: 21 Apr 1972
Date of Commercial Operation: 25 Jul 1972

Lifetime Generation: 85101.0 GW(e).h
Cumulative Energy Availability Factor: 61.7%
Cumulative Load Factor: 61.7%
Cumulative Unit Capability Factor: 62.3%
Cumulative Energy Unavailability Factor: 38.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	1318.0	500.0	100.0	100.0	67.5	67.5	59.7	59.7	3212	72.7
1973	2509.3	470.0	63.6	76.3	63.3	64.8	60.9	60.5	5569	63.6
1974	3122.8	470.0	77.2	76.7	77.0	69.6	75.8	66.6	6766	77.2
1975	260.3	470.0	6.4	56.8	6.4	51.7	6.3	49.5	818	9.3
1976	2828.2	470.0	68.7	59.4	68.7	55.5	68.5	53.7	7011	79.8
1977	1648.0	470.0	40.0	55.9	40.0	52.7	40.0	51.2	3679	42.0
1978	2648.7	470.0	64.5	57.2	64.5	54.5	64.3	53.2	5852	66.8
1979	867.1	470.0	21.1	52.4	21.1	50.1	21.1	49.0	1944	22.2
1980	3032.7	470.0	73.3	54.9	73.3	52.8	73.5	51.9	6622	75.4
1981	2762.9	470.0	66.9	56.1	66.9	54.3	67.1	53.4	5982	68.3
1982	2238.9	470.0	54.2	56.0	54.2	54.3	54.4	53.5	4958	56.6
1983	1433.8	470.0	34.7	54.1	34.7	52.6	34.8	51.9	3262	37.2
1984	3937.3	470.0	96.3	57.5	96.3	56.1	95.4	55.4	8458	96.3
1985	2898.3	470.0	70.2	58.4	70.2	57.1	70.4	56.5	6219	71.0
1986	3301.5	470.0	80.2	59.9	80.0	58.7	80.2	58.1	7100	81.1
1987	2766.2	470.0	67.7	60.4	67.7	59.3	67.2	58.7	5927	67.7
1988	3223.1	470.0	77.8	61.5	77.8	60.4	78.1	59.9	6850	78.0
1989	3325.2	470.0	81.2	62.6	81.2	61.6	80.8	61.1	7112	81.2
1990	3077.1	470.0	72.7	63.1	72.7	62.2	74.7	61.8	6594	75.3
1991	447.1	470.0	10.0	60.4	10.0	59.5	10.9	59.2	950	10.8
1992	0.0	470.0	0.0	57.5	0.0	56.6	0.0	56.3	0	0.0
1993	0.0	470.0	0.0	54.8	0.0	54.0	0.0	53.7	0	0.0
1994	1186.3	470.0	29.9	53.7	29.9	52.9	28.8	52.6	2522	28.8
1995	3335.0	470.0	80.7	54.8	80.5	54.1	81.0	53.8	7138	81.5
1996	3762.4	470.0	90.6	56.3	90.5	55.6	91.1	55.3	8024	91.3
1997	3006.0	470.0	72.6	56.9	72.6	56.2	73.0	56.0	6417	73.3
1998	3396.3	470.0	82.0	57.9	82.0	57.2	82.5	57.0	7228	82.5
1999	2746.4	470.0	66.3	58.2	66.3	57.5	66.7	57.4	5821	66.4
2000	3839.7	470.0	92.5	59.4	92.5	58.8	93.0	58.6	8137	92.6
2001	2911.3	470.0	70.4	59.8	70.3	59.1	70.7	59.0	6177	70.5
2002	3611.3	470.0	87.2	60.7	87.2	60.1	87.7	60.0	7648	87.3
2003	3400.2	470.0	81.5	61.3	81.5	60.7	82.6	60.7	7182	82.0
2004	2942.3	470.0	70.2	61.6	70.2	61.0	71.3	61.0	6170	70.2
2005	3525.4	470.0	84.8	62.3	84.8	61.7	85.6	61.7	7470	85.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					517	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1356			2475		
D. Inspection, maintenance or repair without refuelling				92		
Z. Others					76	
Subtotal	1356	0	0	2567	594	0
Total		1356			3161	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		52
15. Reactor Cooling Systems		3
16. Steam generation systems		403
31. Turbine and auxiliaries		25
41. Main Generator Systems		3
42. Electrical Power Supply Systems		27
Total	0	513

JP-14 MIHAMA-3

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)
Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 780.0 MW(e)
Design Net Capacity: 780.0 MW(e)
Design Discharge Burnup: 43000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 0.0 GW(e).h
Energy Availability Factor: 0.0%
Load Factor: 0.0%
Operating Factor: 0.0%
Energy Unavailability Factor: 100.0%
Total Off-line Time: 8760 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EAF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
UCF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
PUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2004/08/14-)

5. Historical Summary

Date of Construction Start:	07 Aug 1972	Lifetime Generation:	143115.0 GW(e).h
Date of First Criticality:	28 Jan 1976	Cumulative Energy Availability Factor:	71.7%
Date of Grid Connection:	19 Feb 1976	Cumulative Load Factor:	72.0%
Date of Commercial Operation:	01 Dec 1976	Cumulative Unit Capability Factor:	71.7%
		Cumulative Energy Unavailability Factor:	28.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	493.6	780.0	100.0	100.0	85.1	85.1	85.1	85.1	744	100.0
1977	4498.5	780.0	65.8	68.5	65.8	67.4	65.8	67.3	6159	70.3
1978	4166.6	780.0	59.5	64.2	59.5	63.6	61.0	64.3	5537	63.2
1979	1697.4	780.0	24.8	51.4	24.8	51.0	24.8	51.5	2307	26.3
1980	4597.7	780.0	67.0	55.3	67.0	55.0	67.1	55.3	5964	67.9
1981	5832.9	780.0	85.2	61.1	85.2	60.9	85.4	61.2	7607	86.8
1982	5239.1	780.0	76.4	63.6	76.4	63.4	76.7	63.8	6952	79.4
1983	4818.0	780.0	70.6	64.6	70.6	64.4	70.5	64.7	6330	72.3
1984	5353.7	780.0	77.8	66.3	77.8	66.1	78.1	66.4	6906	78.6
1985	4971.9	780.0	72.6	67.0	72.6	66.8	72.8	67.1	6426	73.4
1986	6848.4	780.0	99.8	70.2	99.8	70.1	100.2	70.4	8760	100.0
1987	4822.7	780.0	71.6	70.3	71.6	70.2	70.6	70.4	6268	71.6
1988	4261.3	780.0	64.0	69.8	64.0	69.7	62.2	69.7	5625	64.0
1989	5299.7	780.0	78.0	70.4	78.0	70.3	77.6	70.3	6834	78.0
1990	6867.0	780.0	100.0	72.5	100.0	72.4	100.5	72.5	8760	100.0
1991	4246.2	780.0	59.7	71.7	59.7	71.6	62.1	71.8	5495	62.7
1992	4709.9	780.0	68.5	71.5	68.5	71.4	68.7	71.6	6095	69.4
1993	4526.6	780.0	66.4	71.2	66.1	71.1	66.2	71.3	5951	67.9
1994	6623.0	780.0	96.8	72.6	96.8	72.5	96.9	72.7	8486	96.9
1995	3389.2	780.0	49.7	71.4	49.6	71.3	49.6	71.5	4534	51.8
1996	4491.4	780.0	65.5	71.1	65.3	71.0	65.6	71.2	5760	65.6
1997	6262.8	780.0	91.2	72.1	91.2	72.0	91.7	72.2	7963	90.9
1998	5979.9	780.0	87.1	72.8	87.1	72.7	87.5	72.8	7788	88.9
1999	5795.3	780.0	84.4	73.3	84.4	73.2	84.8	73.4	7398	84.5
2000	4785.0	780.0	69.6	73.1	69.6	73.0	69.8	73.2	6117	69.6
2001	6853.7	780.0	100.0	74.2	100.0	74.1	100.3	74.3	8760	100.0
2002	5248.0	780.0	76.8	74.3	76.8	74.2	76.8	74.4	6732	76.8
2003	6111.5	780.0	87.9	74.8	87.9	74.7	89.4	74.9	7701	87.9
2004	4301.3	780.0	60.5	74.3	60.5	74.2	62.8	74.5	5319	60.6
2005	0.0	780.0	0.0	71.7	0.0	71.7	0.0	72.0	0	0.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					146	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	8760			1878		
E. Testing of plant systems or components				0	4	
Subtotal	8760	0	0	1878	158	0
Total	8760			2036		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		36
15. Reactor Cooling Systems		12
16. Steam generation systems		32
32. Feedwater and Main Steam System		60
Total	0	140

JP-15 OHI-1

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1120.0 MW(e)
Design Net Capacity: 1120.0 MW(e)
Design Discharge Burnup: 31000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7272.5 GW(e).h
Energy Availability Factor: 75.1%
Load Factor: 74.1%
Operating Factor: 74.3%
Energy Unavailability Factor: 24.9%
Total Off-line Time: 2250 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	594.0	771.2	851.2	821.8	848.0	812.1	827.6	816.2	499.1	0.0	0.0	431.3	7272.5
EAF (%)	69.5	100.0	100.0	100.0	100.0	100.0	100.0	99.9	62.7	0.1	0.0	70.7	75.1
UCF (%)	69.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	62.7	0.1	0.0	70.7	75.1
LF (%)	71.3	102.5	102.2	102.0	101.8	100.7	99.3	97.9	61.9	0.0	0.0	51.8	74.1
OF (%)	72.4	100.0	100.0	100.1	100.0	100.0	100.0	100.0	63.3	0.0	0.0	57.4	74.3
EUF (%)	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	37.3	99.9	100.0	29.3	24.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.3	99.9	100.0	29.3	22.3
UCLF (%)	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/09/19-2005/12/11)

5. Historical Summary

Date of Construction Start:	26 Oct 1972	Lifetime Generation:	172100.0 GW(e).h
Date of First Criticality:	02 Dec 1977	Cumulative Energy Availability Factor:	64.9%
Date of Grid Connection:	23 Dec 1977	Cumulative Load Factor:	65.4%
Date of Commercial Operation:	27 Mar 1979	Cumulative Unit Capability Factor:	64.9%
		Cumulative Energy Unavailability Factor:	35.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	3900.2	1120.0	47.3	47.3	47.3	47.3	47.4	47.4	3701	50.4
1980	3890.5	1120.0	39.3	42.9	39.3	42.9	39.5	43.1	3635	41.4
1981	3035.4	1120.0	30.9	38.7	30.9	38.7	30.9	38.8	2938	33.5
1982	6659.8	1120.0	67.5	46.2	67.5	46.2	67.9	46.4	6076	69.4
1983	8212.6	1120.0	83.0	53.8	83.0	53.8	83.7	54.1	7282	83.1
1984	7015.1	1120.0	70.8	56.7	70.8	56.7	71.3	57.1	6292	71.6
1985	5794.1	1120.0	59.0	57.0	58.7	57.0	59.1	57.3	5217	59.6
1986	5138.8	1120.0	52.2	56.4	52.2	56.4	52.4	56.7	4664	53.2
1987	9421.7	1120.0	95.3	60.8	95.3	60.8	96.0	61.2	8430	96.2
1988	3282.4	1120.0	34.8	58.2	34.8	58.1	33.4	58.3	3053	34.8
1989	2744.9	1120.0	29.5	55.5	29.5	55.5	28.0	55.5	2587	29.5
1990	5446.5	1120.0	52.9	55.3	52.9	55.3	55.5	55.5	4919	56.2
1991	5706.3	1120.0	55.8	55.3	55.8	55.3	58.2	55.7	5160	58.9
1992	5488.2	1120.0	55.5	55.3	55.4	55.3	55.8	55.7	4957	56.4
1993	5010.3	1120.0	50.7	55.0	50.7	55.0	51.1	55.4	4535	51.8
1994	6929.9	1120.0	70.2	56.0	69.9	55.9	70.6	56.4	6202	70.8
1995	6537.9	1120.0	66.1	56.6	66.1	56.6	66.6	57.0	6010	68.6
1996	7026.3	1120.0	70.7	57.4	70.7	57.3	71.4	57.8	6305	71.8
1997	7998.8	1120.0	80.8	58.6	80.7	58.6	81.5	59.1	7080	80.8
1998	9406.5	1120.0	95.0	60.5	95.0	60.4	95.9	60.9	8359	95.4
1999	6933.7	1120.0	70.0	60.9	70.0	60.9	70.7	61.4	6136	70.0
2000	6323.6	1120.0	63.7	61.0	63.6	61.0	64.3	61.5	5668	64.5
2001	9333.1	1120.0	94.5	62.5	94.2	62.5	95.1	63.0	8273	94.4
2002	7935.8	1120.0	80.3	63.3	80.2	63.2	80.9	63.7	7038	80.3
2003	8118.7	1120.0	81.8	64.0	81.8	63.9	82.7	64.5	7142	81.5
2004	7777.0	1120.0	77.7	64.5	77.7	64.5	79.1	65.1	6825	77.7
2005	7272.5	1120.0	75.1	64.9	75.1	64.9	74.1	65.4	6510	74.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		248			341	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	1987			2477		
E. Testing of plant systems or components				53		
J. Grid failure or grid unavailability			166			
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						0
Z. Others					20	
Subtotal	1987	248	166	2530	364	0
Total		2401			2894	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		8
14. Safety Systems		7
15. Reactor Cooling Systems	248	28
16. Steam generation systems		244
31. Turbine and auxiliaries		9
32. Feedwater and Main Steam System		13
42. Electrical Power Supply Systems		2
Total	248	312

JP-19 OHI-2

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1120.0 MW(e)
Design Net Capacity: 1120.0 MW(e)
Design Discharge Burnup: 31000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6970.4 GW(e).h
Energy Availability Factor: 70.6%
Load Factor: 71.0%
Operating Factor: 70.1%
Energy Unavailability Factor: 29.4%
Total Off-line Time: 2621 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	862.0	779.4	412.7	0.0	0.0	139.3	706.2	841.5	818.0	854.2	831.7	725.4	6970.4
EAF (%)	100.0	100.0	47.8	-0.1	0.0	16.9	83.1	99.9	100.0	100.0	100.0	100.0	70.6
UCF (%)	100.0	100.0	47.8	-0.1	0.0	16.9	83.1	100.0	100.0	100.0	100.0	100.0	70.6
LF (%)	103.4	103.6	49.5	0.0	0.0	17.3	84.7	101.0	101.4	102.4	103.1	87.1	71.0
OF (%)	100.0	100.0	48.4	0.0	0.0	21.0	86.2	100.0	100.0	99.9	100.0	86.4	70.1
EUF (%)	0.0	0.0	52.2	100.1	100.0	83.1	16.9	0.1	0.0	0.0	0.0	0.0	29.4
PUF (%)	0.0	0.0	52.2	100.1	67.7	4.0	0.0	0.0	0.0	0.0	0.0	0.0	18.7
UCLF (%)	0.0	0.0	0.0	0.0	32.3	79.0	16.9	0.0	0.0	0.0	0.0	0.0	10.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/03/15-2005/06/27)

5. Historical Summary

Date of Construction Start:	08 Dec 1972	Lifetime Generation:	185761.0 GW(e).h
Date of First Criticality:	14 Sep 1978	Cumulative Energy Availability Factor:	72.0%
Date of Grid Connection:	11 Oct 1978	Cumulative Load Factor:	72.5%
Date of Commercial Operation:	05 Dec 1979	Cumulative Unit Capability Factor:	72.2%
		Cumulative Energy Unavailability Factor:	28.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	839.3	1120.0	100.0	100.0	100.0	100.0	100.7	100.7	744	100.0
1980	5466.4	1120.0	55.2	58.7	55.2	58.7	55.6	59.1	4976	56.6
1981	5031.7	1120.0	51.0	55.0	51.0	55.0	51.3	55.4	4668	53.3
1982	8648.6	1120.0	87.6	65.6	87.6	65.6	88.2	66.0	7877	89.9
1983	7443.8	1120.0	75.2	67.9	75.2	67.9	75.9	68.4	6670	76.1
1984	5793.5	1120.0	58.5	66.1	58.5	66.1	58.9	66.5	5208	59.3
1985	6843.0	1120.0	69.2	66.6	69.2	66.6	69.7	67.1	6260	71.5
1986	9858.9	1120.0	99.5	71.2	99.5	71.2	100.5	71.8	8760	100.0
1987	6238.1	1120.0	66.8	70.7	65.3	70.5	63.6	70.8	5789	66.1
1988	6112.3	1120.0	62.9	69.8	62.9	69.7	62.1	69.8	5525	62.9
1989	9828.0	1120.0	99.4	72.8	99.4	72.6	100.2	72.8	8707	99.4
1990	6685.7	1120.0	66.1	72.2	66.1	72.0	68.1	72.4	6069	69.3
1991	6409.5	1120.0	71.3	72.1	69.4	71.8	65.3	71.8	5903	67.4
1992	6973.3	1120.0	70.2	71.9	70.2	71.7	70.9	71.7	6178	70.3
1993	8863.9	1120.0	89.5	73.2	89.5	72.9	90.3	73.1	7903	90.2
1994	6680.0	1120.0	67.9	72.8	67.9	72.6	68.1	72.7	5929	67.7
1995	3273.5	1120.0	33.4	70.4	33.3	70.2	33.4	70.3	3060	34.9
1996	9738.2	1120.0	98.3	72.0	98.0	71.8	99.0	72.0	8662	98.6
1997	5316.5	1120.0	53.7	71.0	53.7	70.8	54.2	71.0	4753	54.3
1998	6501.3	1120.0	65.7	70.7	65.6	70.5	66.3	70.7	5760	65.8
1999	4511.1	1120.0	45.6	69.5	45.6	69.3	46.0	69.5	3994	45.6
2000	7796.8	1120.0	78.6	69.9	78.6	69.7	79.3	70.0	6987	79.5
2001	7163.5	1120.0	71.3	70.0	71.3	69.8	73.0	70.1	6302	71.9
2002	8265.6	1120.0	83.6	70.6	83.6	70.4	84.2	70.7	7326	83.6
2003	10075.6	1120.0	100.0	71.8	100.0	71.6	102.7	72.0	8760	100.0
2004	8408.3	1120.0	83.4	72.3	83.4	72.1	85.5	72.6	7324	83.4
2005	6970.4	1120.0	70.6	72.2	70.6	72.0	71.0	72.5	6139	70.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		452			334	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	1679			1934		
D. Inspection, maintenance or repair without refuelling				16		
J. Grid failure or grid unavailability			136			
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						5
Z. Others		504			14	
Subtotal	1679	956	136	1950	357	5
Total		2771			2312	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		157
13. Reactor Auxiliary Systems		31
14. Safety Systems		0
15. Reactor Cooling Systems		10
16. Steam generation systems		127
31. Turbine and auxiliaries		4
41. Main Generator Systems	147	2
42. Electrical Power Supply Systems	305	
Total	452	331

JP-50 OHI-3

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)
Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1127.0 MW(e)
Design Net Capacity: 1127.0 MW(e)
Design Discharge Burnup: 31000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7834.0 GW(e).h
Energy Availability Factor: 77.6%
Load Factor: 79.4%
Operating Factor: 79.5%
Energy Unavailability Factor: 22.4%
Total Off-line Time: 1792 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	448.0	774.9	293.4	833.0	861.1	633.8	0.0	660.0	791.5	858.1	831.1	849.2	7834.0
EAF (%)	52.4	100.0	34.2	100.0	100.0	76.1	0.0	77.5	95.6	100.0	100.0	100.0	77.6
UCF (%)	52.4	100.0	34.2	100.0	100.0	76.2	0.0	77.5	95.6	100.0	100.0	100.0	77.6
LF (%)	53.4	102.3	35.0	102.8	102.7	78.1	0.0	78.7	97.5	102.2	102.4	101.3	79.4
OF (%)	55.5	100.0	37.4	100.1	100.0	76.7	0.0	88.8	100.0	99.9	100.0	100.0	79.5
EUF (%)	47.6	0.0	65.8	0.0	0.0	23.9	100.0	22.5	4.4	0.0	0.0	0.0	22.4
PUF (%)	3.1	0.0	0.0	0.0	0.0	23.9	100.0	22.5	0.0	0.0	0.0	0.0	12.6
UCLF (%)	44.6	0.0	65.8	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	9.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(#10:2004/04/19-2005/01/16)(#11:2005/06/23-2005/08/11)

5. Historical Summary

Date of Construction Start: 03 Oct 1987
Date of First Criticality: 17 May 1991
Date of Grid Connection: 07 Jun 1991
Date of Commercial Operation: 18 Dec 1991

Lifetime Generation: 116980.0 GW(e).h
Cumulative Energy Availability Factor: 83.7%
Cumulative Load Factor: 84.3%
Cumulative Unit Capability Factor: 83.7%
Cumulative Energy Unavailability Factor: 16.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1991	843.6	1127.0	100.0	100.0	100.0	100.0	100.6	100.6	744	100.0
1992	9954.7	1127.0	100.0	100.0	100.0	100.0	100.6	100.6	8784	100.0
1993	7863.7	1127.0	79.4	90.1	79.4	90.1	79.7	90.5	7025	80.2
1994	8139.1	1127.0	82.5	87.7	82.5	87.7	82.4	87.9	7265	82.9
1995	7701.7	1127.0	77.8	85.3	77.8	85.3	78.0	85.5	6887	78.6
1996	9957.4	1127.0	100.0	88.2	100.0	88.2	100.6	88.5	8784	100.0
1997	8333.0	1127.0	83.9	87.5	83.9	87.5	84.4	87.8	7385	84.3
1998	8872.7	1127.0	89.3	87.7	89.3	87.7	89.9	88.1	7867	89.8
1999	8892.3	1127.0	89.9	88.0	89.5	87.9	90.1	88.3	7875	89.9
2000	8868.9	1127.0	89.1	88.1	89.1	88.1	89.6	88.5	7824	89.1
2001	8474.7	1127.0	85.4	87.8	85.4	87.8	85.8	88.2	7481	85.4
2002	9918.7	1127.0	100.0	88.9	100.0	88.9	100.5	89.3	8760	100.0
2003	8683.2	1127.0	85.9	88.7	85.9	88.6	88.0	89.2	7525	85.9
2004	3040.2	1127.0	30.0	84.2	30.0	84.2	30.7	84.7	2634	30.0
2005	7834.0	1127.0	77.6	83.7	77.6	83.7	79.4	84.3	6968	79.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1993 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	1219	844		971	404	
Subtotal	1219	844	0	971	404	0
Total	2063			1375		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1993 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	332	404
13. Reactor Auxiliary Systems	512	
Total	844	404

JP-51 OHI-4

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)
Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1127.0 MW(e)
Design Net Capacity: 1125.0 MW(e)
Design Discharge Burnup: 31000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9929.0 GW(e).h
Energy Availability Factor: 98.8%
Load Factor: 100.6%
Operating Factor: 98.8%
Energy Unavailability Factor: 1.2%
Total Off-line Time: 103 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	857.8	779.7	856.4	831.8	859.0	829.0	854.2	850.1	828.4	859.0	831.9	691.8	9929.0
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.6	98.8
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.7	98.8
LF (%)	102.3	102.9	102.1	102.6	102.4	102.2	101.9	101.4	102.1	102.3	102.5	82.5	100.6
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	86.2	98.8
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4	1.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4	1.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/12/27-)

5. Historical Summary

Date of Construction Start: 13 Jun 1988
Date of First Criticality: 28 May 1992
Date of Grid Connection: 19 Jun 1992
Date of Commercial Operation: 02 Feb 1993

Lifetime Generation: 111060.0 GW(e).h
Cumulative Energy Availability Factor: 86.1%
Cumulative Load Factor: 87.0%
Cumulative Unit Capability Factor: 86.1%
Cumulative Energy Unavailability Factor: 13.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	9079.7	1127.0	100.0	100.0	100.0	100.0	100.5	100.5	8016	100.0
1994	7851.5	1127.0	79.7	89.4	79.7	89.4	79.5	89.6	7063	80.6
1995	7495.1	1127.0	75.6	84.7	75.6	84.7	75.9	84.9	6695	76.4
1996	7051.1	1127.0	70.8	81.1	70.8	81.1	71.2	81.4	6221	70.8
1997	7660.2	1127.0	77.1	80.3	77.1	80.3	77.6	80.6	6756	77.1
1998	8839.4	1127.0	89.0	81.8	89.0	81.8	89.5	82.1	7835	89.4
1999	8903.4	1127.0	89.9	82.9	89.5	82.9	90.2	83.3	7872	89.9
2000	8649.8	1127.0	86.8	83.4	86.8	83.4	87.4	83.8	7629	86.9
2001	9283.6	1127.0	93.4	84.5	93.4	84.5	94.0	84.9	8179	93.4
2002	9217.1	1127.0	91.5	85.2	91.5	85.2	93.4	85.8	8017	91.5
2003	8762.6	1127.0	86.3	85.3	86.3	85.3	88.8	86.1	7557	86.3
2004	8318.2	1127.0	81.8	85.0	81.8	85.0	84.0	85.9	7186	81.8
2005	9929.0	1127.0	98.8	86.1	98.8	86.1	100.6	87.0	8657	98.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					266	
C. Inspection, maintenance or repair combined with refuelling	109			971		
Z. Others					48	
Subtotal	109	0	0	971	314	0
Total	109			1285		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
41. Main Generator Systems		266
Total	0	266

JP-22 ONAGAWA-1

Operator: TOHOKU (TOHOKU ELECTRIC POWER CO.,INC)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 498.0 MW(e)
Design Net Capacity: 496.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1898.6 GW(e).h
Energy Availability Factor: 43.1%
Load Factor: 43.5%
Operating Factor: 43.4%
Energy Unavailability Factor: 56.9%
Total Off-line Time: 4961 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	147.9	291.6	0.0	162.3	374.3	362.2	373.9	186.4	0.0	0.0	0.0	0.0	1898.6
EAF (%)	39.4	86.4	0.0	44.8	100.0	100.0	100.0	50.0	0.0	0.1	0.0	0.0	43.1
UCF (%)	39.4	86.4	0.0	44.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.8
LF (%)	39.9	87.1	0.0	45.3	101.0	101.0	100.9	50.3	0.0	0.0	0.0	0.0	43.5
OF (%)	41.3	86.8	0.0	45.8	100.0	100.0	100.0	50.0	0.0	0.0	0.0	0.0	43.4
EUF (%)	60.6	13.6	100.0	55.2	0.0	0.0	0.0	50.0	100.0	99.9	100.0	100.0	56.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	60.6	13.6	100.0	55.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	100.0	99.9	100.0	100.0	37.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

EXTENSION OF PERIODICAL INSPECTION.(2005/01/01 - 2005/01/20)MANUAL SHUTDOWN DUE TO INCREASED NITROGEN SUPPLY.(2005/02/25 - 2005/04/18)UNPLANNED OUTAGE DUE TO THE EARTHQUAKE.(2005/08/16 -)

5. Historical Summary

Date of Construction Start: 08 Jul 1980 **Lifetime Generation:** 72442.0 GW(e).h
Date of First Criticality: 18 Oct 1983 **Cumulative Energy Availability Factor:** 73.6%
Date of Grid Connection: 18 Nov 1983 **Cumulative Load Factor:** 73.7%
Date of Commercial Operation: 01 Jun 1984 **Cumulative Unit Capability Factor:** 75.4%
Cumulative Energy Unavailability Factor: 26.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	2519.8	496.0	100.0	100.0	98.9	98.9	98.9	98.9	5136	100.0
1985	3259.2	496.0	75.6	84.6	75.6	84.2	75.0	83.8	6681	76.3
1986	3366.6	496.0	77.9	82.0	77.9	81.8	77.5	81.4	6871	78.4
1987	3161.7	497.0	72.8	79.4	72.8	79.3	72.6	78.9	6500	74.2
1988	3410.6	496.0	78.6	79.3	78.6	79.1	78.3	78.8	6949	79.1
1989	3013.7	497.0	69.1	77.4	69.1	77.3	69.2	77.1	6177	70.5
1990	2850.7	497.0	65.6	75.6	65.6	75.5	65.5	75.3	5908	67.4
1991	3345.9	497.0	77.0	75.8	77.0	75.7	76.9	75.5	6954	79.4
1992	4120.5	497.0	94.7	78.0	94.7	77.9	94.4	77.7	8342	95.0
1993	2300.1	497.0	52.0	75.3	50.6	75.1	52.8	75.1	4666	53.3
1994	3428.8	497.0	78.7	75.6	78.6	75.4	78.8	75.5	6961	79.5
1995	2936.4	497.0	68.2	75.0	67.8	74.8	67.4	74.8	6000	68.5
1996	3727.2	498.0	85.6	75.8	85.6	75.6	85.2	75.6	7523	85.6
1997	3304.6	498.0	76.2	75.9	76.2	75.7	75.8	75.6	6708	76.6
1998	3359.5	498.0	76.9	75.9	76.9	75.8	77.0	75.7	6841	78.1
1999	4240.2	498.0	97.2	77.3	97.2	77.1	97.2	77.1	8517	97.2
2000	3689.1	498.0	84.6	77.7	84.6	77.6	84.3	77.5	7436	84.7
2001	3425.1	498.0	78.5	77.8	78.4	77.6	78.5	77.6	6873	78.5
2002	3143.2	498.0	68.5	77.3	68.5	77.1	72.1	77.3	6001	68.5
2003	1856.1	498.0	42.5	75.5	42.5	75.4	42.5	75.5	3725	42.5
2004	2998.9	498.0	68.6	75.2	68.5	75.0	68.6	75.2	6020	68.5
2005	1898.6	498.0	80.8	75.4	43.1	73.6	43.5	73.7	3799	43.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1736			321	
C. Inspection, maintenance or repair combined with refuelling				1463		
D. Inspection, maintenance or repair without refuelling				302		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						5
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			3300			
Subtotal	0	1736	3300	1765	321	5
Total		5036			2091	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
14. Safety Systems	1258	
15. Reactor Cooling Systems		232
31. Turbine and auxiliaries		35
32. Feedwater and Main Steam System	478	47
42. Electrical Power Supply Systems		6
Total	1736	320

JP-54 ONAGAWA-2

Operator: TOHOKU (TOHOKU ELECTRIC POWER CO.,INC)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 796.0 MW(e)
Design Net Capacity: 796.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1877.3 GW(e).h
Energy Availability Factor: 26.8%
Load Factor: 26.9%
Operating Factor: 27.0%
Energy Unavailability Factor: 73.2%
Total Off-line Time: 6393 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	398.3	0.0	0.0	0.0	12.2	573.4	596.1	297.3	0.0	0.0	0.0	0.0	1877.3
EAF (%)	67.1	0.0	0.0	-0.1	2.0	99.4	100.0	50.0	0.0	0.1	0.0	0.0	26.8
UCF (%)	67.2	0.0	0.0	-0.1	2.0	99.4	100.0	100.0	100.0	100.0	100.0	100.0	64.5
LF (%)	67.3	0.0	0.0	0.0	2.1	100.0	100.7	50.2	0.0	0.0	0.0	0.0	26.9
OF (%)	67.9	0.0	0.0	0.0	3.5	100.0	100.0	50.0	0.0	0.0	0.0	0.0	27.0
EUF (%)	32.9	100.0	100.0	100.1	98.0	0.6	0.0	50.0	100.0	99.9	100.0	100.0	73.2
PUF (%)	32.8	100.0	100.0	100.1	1.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	27.3
UCLF (%)	0.0	0.0	0.0	0.0	96.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
XUF (%)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	50.0	100.0	99.9	100.0	100.0	37.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

COAST-DOWN(2005/01/15 - 2005/01/21)PERIODICAL INSPECTION AND REFUELLING(2005/01/21 - 2005/04/30)EXTENSION OF PERIODICAL INSPECTION(2005/05/01 - 2005/06/02)UNPLANNED OUTAGE DUE TO THE EARTHQUAKE(2005/08/16 -)

5. Historical Summary

Date of Construction Start: 12 Apr 1991 **Lifetime Generation:** 57706.0 GW(e).h
Date of First Criticality: 02 Nov 1994 **Cumulative Energy Availability Factor:** 77.2%
Date of Grid Connection: 23 Dec 1994 **Cumulative Load Factor:** 77.3%
Date of Commercial Operation: 28 Jul 1995 **Cumulative Unit Capability Factor:** 80.8%
Cumulative Energy Unavailability Factor: 22.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1995	3261.4	796.0	93.4	93.4	93.4	93.4	92.8	92.8	4149	94.0
1996	5175.3	796.0	74.4	80.8	74.4	80.8	74.0	80.3	6545	74.5
1997	6931.6	796.0	99.9	88.4	99.9	88.4	99.4	87.9	8760	100.0
1998	5647.7	796.0	81.1	86.3	81.1	86.3	81.0	85.9	7185	82.0
1999	5841.2	796.0	84.2	85.9	84.2	85.9	83.8	85.5	7383	84.3
2000	5858.6	796.0	84.2	85.6	84.2	85.6	83.8	85.2	7402	84.3
2001	6521.2	796.0	94.0	86.9	94.0	86.9	93.5	86.4	8238	94.0
2002	5242.9	796.0	72.4	84.9	72.4	84.9	75.2	84.9	6368	72.7
2003	3272.4	796.0	47.3	80.5	47.2	80.5	46.9	80.5	4139	47.2
2004	7040.4	796.0	100.0	82.6	100.0	82.6	100.7	82.6	8784	100.0
2005	1877.3	796.0	64.5	80.8	26.8	77.2	26.9	77.3	2367	27.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1995 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		792			442	
C. Inspection, maintenance or repair combined with refuelling	2383			798		
D. Inspection, maintenance or repair without refuelling				56		
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			3300			
Subtotal	2383	792	3300	854	442	0
Total		6475			1296	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1995 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	792	
15. Reactor Cooling Systems		341
31. Turbine and auxiliaries		31
32. Feedwater and Main Steam System		69
Total	792	441

JP-57 ONAGAWA-3

Operator: TOHOKU (TOHOKU ELECTRIC POWER CO.,INC)
Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 796.0 MW(e)
Design Net Capacity: 796.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4381.8 GW(e).h
Energy Availability Factor: 61.2%
Load Factor: 62.8%
Operating Factor: 62.3%
Energy Unavailability Factor: 38.8%
Total Off-line Time: 3300 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	611.7	552.1	611.1	591.9	611.4	591.8	518.5	293.4	0.0	0.0	0.0	0.0	4381.8
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	87.0	50.0	0.0	0.1	0.0	0.0	61.2
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	87.0	100.0	87.9	0.1	0.0	0.0	72.7
LF (%)	103.3	103.2	103.2	103.4	103.2	103.3	87.6	49.5	0.0	0.0	0.0	0.0	62.8
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	50.0	0.0	0.0	0.0	0.0	62.3
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	13.0	50.0	100.0	99.9	100.0	100.0	38.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	99.9	100.0	38.7	21.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	61.3	6.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	87.9	0.0	0.0	0.0	11.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

CHECKING DUE TO INCREASED RADIATION LEVEL OF OFF-GAS TREATMENT(2005/07/06 - 2005/07/22)UNPLANNED OUTAGE DUE TO THE EARTHQUAKE(2005/08/16 - 2005/09/27)PERIODICAL INSPECTION AND REFUELLING(2005/09/27 - 2005/12/12)EXTENSION OF PERIODICAL INSPECTION(2005/12/13 -)

5. Historical Summary

Date of Construction Start: 23 Jan 1998 **Lifetime Generation:** 22114.0 GW(e).h
Date of First Criticality: 26 Apr 2001 **Cumulative Energy Availability Factor:** 79.8%
Date of Grid Connection: 30 May 2001 **Cumulative Load Factor:** 80.1%
Date of Commercial Operation: 30 Jan 2002 **Cumulative Unit Capability Factor:** 83.0%
Cumulative Energy Unavailability Factor: 20.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002	6652.5	796.0	100.0	100.0	100.0	100.0	95.4	95.4	8064	92.1
2003	5978.2	796.0	84.7	92.3	83.7	91.9	85.7	90.6	7332	83.7
2004	5348.7	796.0	74.6	86.4	74.4	86.0	76.5	85.9	6548	74.5
2005	4381.8	796.0	72.7	83.0	61.2	79.8	62.8	80.1	5460	62.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2003 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	1839		1007	866	327	28
C. Inspection, maintenance or repair combined with refuelling						
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						
Z. Others		456				
Subtotal	1839	456	1007	866	327	28
Total	3302			1221		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2003 to 2005 Average Hours Lost Per Year
32. Feedwater and Main Steam System		327
Total	0	327

JP-28 SENDAI-1**Operator:** KYUSHU (KYUSHU ELECTRIC POWER CO.,INC.)**Contractor:** MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 846.0 MW(e)

Design Net Capacity: 846.0 MW(e)

Design Discharge Burnup: 40000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7155.8 GW(e).h

Energy Availability Factor: 94.7%

Load Factor: 96.6%

Operating Factor: 94.8%

Energy Unavailability Factor: 5.3%

Total Off-line Time: 455 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	642.0	580.2	644.2	622.4	642.3	621.0	639.4	637.6	618.2	640.3	621.4	246.8	7155.8
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	38.4	94.7
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	38.4	94.7
LF (%)	102.0	102.0	102.3	102.3	102.0	102.0	101.6	101.3	101.5	101.6	102.0	39.2	96.6
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	38.8	94.8
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.6	5.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.6	5.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 15 Dec 1979 **Lifetime Generation:** 139166.0 GW(e).h

Date of First Criticality: 25 Aug 1983 **Cumulative Energy Availability Factor:** 82.5%

Date of Grid Connection: 16 Sep 1983 **Cumulative Load Factor:** 83.5%

Date of Commercial Operation: 04 Jul 1984 **Cumulative Unit Capability Factor:** 82.5%

Cumulative Energy Unavailability Factor: 17.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	3775.4	846.0	100.0	100.0	100.0	100.0	101.1	101.1	4416	100.0
1985	5890.3	846.0	78.7	85.8	78.7	85.8	79.5	86.7	6964	79.5
1986	6084.0	846.0	81.4	84.0	81.4	84.0	82.1	84.9	7224	82.5
1987	6113.4	846.0	81.7	83.4	81.7	83.4	82.5	84.2	7261	82.9
1988	5683.1	846.0	75.8	81.7	75.8	81.7	76.5	82.5	6756	76.9
1989	7381.3	846.0	98.7	84.8	98.7	84.8	99.6	85.6	8641	98.6
1990	6155.0	846.0	82.3	84.4	82.3	84.4	83.1	85.2	7307	83.4
1991	5590.7	846.0	74.8	83.1	74.8	83.1	75.4	83.9	6684	76.3
1992	5713.9	846.0	76.1	82.3	76.1	82.3	76.9	83.1	6780	77.2
1993	6619.2	846.0	88.4	82.9	88.4	82.9	89.3	83.7	7753	88.5
1994	5778.3	846.0	77.2	82.4	77.2	82.4	78.0	83.2	6762	77.2
1995	5780.3	846.0	77.3	81.9	77.3	81.9	78.0	82.7	6863	78.3
1996	5185.4	846.0	69.1	80.9	69.1	80.9	69.8	81.7	6157	70.1
1997	7216.7	846.0	96.4	82.1	96.4	82.1	97.4	82.9	8449	96.4
1998	5291.2	846.0	70.6	81.3	70.6	81.3	71.4	82.1	6311	72.0
1999	6057.6	846.0	80.8	81.2	80.8	81.2	81.7	82.0	7082	80.8
2000	5654.0	846.0	75.2	80.9	75.2	80.9	76.1	81.7	6609	75.2
2001	7367.0	846.0	98.3	81.9	98.3	81.9	99.4	82.7	8614	98.3
2002	6323.0	846.0	83.7	82.0	83.7	82.0	85.3	82.8	7333	83.7
2003	6282.1	846.0	83.1	82.0	83.1	82.0	84.8	82.9	7278	83.1
2004	6080.8	846.0	80.1	81.9	80.1	81.9	81.8	82.9	7043	80.2
2005	7155.8	846.0	94.7	82.5	94.7	82.5	96.6	83.5	8305	94.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					57	
C. Inspection, maintenance or repair combined with refuelling	462			1469		
Subtotal	462	0	0	1469	57	0
Total		462			1526	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
13. Reactor Auxiliary Systems		12
16. Steam generation systems		32
31. Turbine and auxiliaries		10
Total	0	56

JP-37 SENDAI-2**Operator:** KYUSHU (KYUSHU ELECTRIC POWER CO.,INC.)**Contractor:** MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 846.0 MW(e)

Design Net Capacity: 846.0 MW(e)

Design Discharge Burnup: 40000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6752.8 GW(e).h

Energy Availability Factor: 88.9%

Load Factor: 91.1%

Operating Factor: 90.1%

Energy Unavailability Factor: 11.1%

Total Off-line Time: 865 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	389.6	647.4	625.9	646.3	624.4	643.6	641.1	621.1	643.8	624.0	645.7	6752.8
EAF (%)	0.0	66.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.9
UCF (%)	0.0	66.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.9
LF (%)	0.0	68.5	102.9	102.9	102.7	102.5	102.2	101.9	102.0	102.1	102.4	102.6	91.1
OF (%)	0.0	82.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	90.1
EUF (%)	100.0	33.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
PUF (%)	100.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
UCLF (%)	0.0	13.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 12 Oct 1981 **Lifetime Generation:** 124588.0 GW(e).h

Date of First Criticality: 18 Mar 1985 **Cumulative Energy Availability Factor:** 83.5%

Date of Grid Connection: 05 Apr 1985 **Cumulative Load Factor:** 84.6%

Date of Commercial Operation: 28 Nov 1985 **Cumulative Unit Capability Factor:** 83.5%

Cumulative Energy Unavailability Factor: 16.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	1252.9	846.0	100.0	100.0	100.0	100.0	101.2	101.2	1464	100.0
1986	5996.4	846.0	80.1	83.0	80.1	83.0	80.9	83.8	7112	81.2
1987	6080.6	846.0	81.2	82.2	81.2	82.2	82.0	83.0	7211	82.3
1988	7409.8	846.0	98.7	87.4	98.7	87.4	99.7	88.3	8665	98.6
1989	4999.4	846.0	66.8	82.5	66.8	82.5	67.5	83.3	5950	67.9
1990	6160.1	846.0	82.4	82.4	82.4	82.4	83.1	83.3	7309	83.4
1991	5665.3	846.0	75.7	81.4	75.7	81.4	76.4	82.2	6732	76.8
1992	7385.3	846.0	98.3	83.7	98.3	83.7	99.4	84.6	8639	98.3
1993	5822.0	846.0	77.7	83.0	77.7	83.0	78.6	83.8	6632	75.7
1994	5568.8	846.0	74.3	82.0	74.3	82.0	75.1	82.9	6557	74.9
1995	5658.4	846.0	75.5	81.4	75.5	81.4	76.4	82.2	6709	76.6
1996	7359.3	846.0	98.0	82.9	98.0	82.9	99.0	83.7	8617	98.1
1997	5950.3	846.0	79.4	82.6	79.4	82.6	80.3	83.5	7034	80.3
1998	5899.1	846.0	78.7	82.3	78.7	82.3	79.6	83.2	6973	79.6
1999	5658.3	846.0	75.5	81.8	75.5	81.8	76.4	82.7	6612	75.5
2000	7370.2	846.0	98.0	82.9	98.0	82.9	99.2	83.8	8614	98.1
2001	6210.2	846.0	82.9	82.9	82.9	82.9	83.8	83.8	7260	82.9
2002	6255.5	846.0	82.8	82.9	82.8	82.9	84.4	83.8	7257	82.8
2003	6348.8	846.0	83.4	82.9	83.4	82.9	85.7	83.9	7315	83.5
2004	6762.5	846.0	88.5	83.2	88.5	83.2	91.0	84.3	7774	88.5
2005	6752.8	846.0	88.9	83.5	88.9	83.5	91.1	84.6	7895	90.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	956	122		1409		
Subtotal	956	122	0	1409	0	0
Total	1078			1409		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
32. Feedwater and Main Steam System	122	
Total	122	0

JP-48 SHIKA-1**Operator:** HOKURIKU (HOKURIKU ELECTRIC POWER CO.)**Contractor:** HITACHI (HITACHI LTD.)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 505.0 MW(e)

Design Net Capacity: 505.0 MW(e)

Design Discharge Burnup: 28600 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4203.8 GW(e).h

Energy Availability Factor: 100.0%

Load Factor: 95.0%

Operating Factor: 93.9%

Energy Unavailability Factor: 0.0%

Total Off-line Time: 534 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	385.2	347.8	385.5	73.8	384.3	369.3	379.5	376.8	366.8	381.8	370.3	382.6	4203.8
EAF (%)	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0
UCF (%)	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0
LF (%)	102.5	102.5	102.6	20.3	102.3	101.6	101.0	100.3	100.9	101.5	101.8	101.8	95.0
OF (%)	100.0	100.0	100.0	25.9	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	93.9
EUF (%)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
PUF (%)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

REACTOR WAS MANUALLY SHUTDOWN DUE TO GRID FAILURE.(2005/04/01-2005/04/27)

5. Historical Summary

Date of Construction Start: 01 Jul 1989 **Lifetime Generation:** 45370.0 GW(e).h

Date of First Criticality: 20 Nov 1992 **Cumulative Energy Availability Factor:** 81.2%

Date of Grid Connection: 12 Jan 1993 **Cumulative Load Factor:** 80.6%

Date of Commercial Operation: 30 Jul 1993 **Cumulative Unit Capability Factor:** 81.2%

Cumulative Energy Unavailability Factor: 18.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	2068.5	505.0	99.8	99.8	99.8	99.8	92.8	92.8	4130	93.5
1994	3312.4	505.0	75.0	83.3	75.0	83.3	74.9	80.9	6584	75.2
1995	3497.2	505.0	79.0	81.6	79.0	81.6	79.1	80.1	6974	79.6
1996	3454.7	505.0	77.9	80.6	77.9	80.6	77.9	79.5	6848	78.0
1997	4431.8	505.0	100.0	84.9	100.0	84.9	100.2	84.1	8760	100.0
1998	3530.6	505.0	80.0	84.0	80.0	84.0	79.8	83.3	7047	80.4
1999	3325.7	505.0	75.4	82.7	75.4	82.7	75.2	82.1	6607	75.4
2000	3763.1	505.0	84.9	83.0	84.9	83.0	84.8	82.4	7462	84.9
2001	4427.4	505.0	100.0	85.0	100.0	85.0	100.1	84.5	8760	100.0
2002	3537.1	505.0	80.0	84.4	80.0	84.4	80.0	84.0	7010	80.0
2003	1523.8	505.0	34.6	79.7	34.6	79.7	34.4	79.3	3029	34.6
2004	3534.9	505.0	78.8	79.6	78.8	79.6	79.7	79.3	6958	79.2
2005	4203.8	505.0	100.0	81.2	100.0	81.2	95.0	80.6	8226	93.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					117	
C. Inspection, maintenance or repair combined with refuelling				1581		
J. Grid failure or grid unavailability			611			
Subtotal	0	0	611	1581	117	0
Total		611			1698	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems		79
31. Turbine and auxiliaries		13
42. Electrical Power Supply Systems		25
Total	0	117

JP-7 SHIMANE-1**Operator:** CHUGOKU (CHUGOKU ELECTRIC POWER CO.)**Contractor:** HITACHI (HITACHI LTD.)**1. Station Details**

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 439.0 MW(e)

Design Net Capacity: 439.0 MW(e)

Design Discharge Burnup: 45000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2382.3 GW(e).h

Energy Availability Factor: 60.8%

Load Factor: 61.9%

Operating Factor: 61.1%

Energy Unavailability Factor: 39.2%

Total Off-line Time: 3411 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	335.2	205.1	0.0	0.0	0.0	1.1	199.7	328.7	321.1	333.0	323.0	335.4	2382.3
EAF (%)	100.0	67.6	0.0	-0.1	0.0	0.4	60.4	100.0	100.0	100.0	100.0	100.0	60.8
UCF (%)	100.0	67.6	0.0	-0.1	0.0	0.4	60.4	100.0	100.0	100.0	100.0	100.0	60.8
LF (%)	102.6	69.5	0.0	0.0	0.0	0.3	61.1	100.6	101.6	101.8	102.2	102.7	61.9
OF (%)	100.0	68.0	0.0	0.0	0.0	1.1	62.9	100.0	100.0	99.9	100.0	100.0	61.1
EUF (%)	0.0	32.4	100.0	100.1	100.0	99.6	39.6	0.0	0.0	0.0	0.0	0.0	39.2
PUF (%)	0.0	32.4	100.0	30.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	13.6
UCLF (%)	0.0	0.0	0.0	70.1	100.0	99.6	37.9	0.0	0.0	0.0	0.0	0.0	25.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	02 Jul 1970	Lifetime Generation:	90069.0 GW(e).h
Date of First Criticality:	01 Jun 1973	Cumulative Energy Availability Factor:	73.2%
Date of Grid Connection:	02 Dec 1973	Cumulative Load Factor:	73.3%
Date of Commercial Operation:	29 Mar 1974	Cumulative Unit Capability Factor:	73.7%
		Cumulative Energy Unavailability Factor:	26.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	2756.2	440.0	89.4	89.4	84.0	84.0	85.3	85.3	6387	87.0
1975	2946.1	439.0	80.0	84.3	78.7	81.1	76.6	80.6	7010	80.0
1976	2802.9	439.0	72.8	80.2	72.7	78.2	72.7	77.8	6697	76.2
1977	1879.1	439.0	48.9	72.1	48.9	70.6	48.9	70.3	4489	51.2
1978	2701.8	439.0	70.3	71.7	70.3	70.5	70.3	70.3	6394	73.0
1979	2623.6	439.0	68.4	71.1	68.4	70.1	68.2	69.9	6341	72.4
1980	2734.6	439.0	70.9	71.1	70.9	70.2	70.9	70.1	6466	73.6
1981	2293.1	439.0	60.0	69.7	57.0	68.5	59.6	68.7	5430	62.0
1982	2366.8	439.0	61.5	68.8	61.5	67.7	61.5	67.9	5499	62.8
1983	2696.1	439.0	70.1	68.9	70.1	68.0	70.1	68.1	6268	71.6
1984	2990.7	439.0	78.2	69.8	78.2	68.9	77.6	69.0	6912	78.7
1985	3790.4	439.0	100.0	72.3	99.1	71.5	98.6	71.5	8705	99.4
1986	2130.5	439.0	55.5	71.0	55.5	70.2	55.4	70.3	4903	56.0
1987	3011.2	439.0	79.4	71.6	78.6	70.8	78.3	70.8	6937	79.2
1988	2355.1	439.0	61.1	70.9	61.1	70.2	61.1	70.2	5398	61.5
1989	2616.3	439.0	68.1	70.7	68.1	70.0	68.0	70.0	5965	68.1
1990	3745.5	439.0	97.4	72.3	97.4	71.7	97.4	71.7	8565	97.8
1991	3111.3	439.0	80.9	72.8	80.9	72.2	80.9	72.2	7123	81.3
1992	2671.3	439.0	73.4	72.8	69.4	72.0	69.3	72.0	6134	69.8
1993	2549.1	439.0	66.5	72.5	66.5	71.7	66.3	71.7	5849	66.8
1994	2948.0	439.0	76.7	72.7	76.7	72.0	76.7	72.0	6733	76.9
1995	2984.6	439.0	78.1	72.9	78.1	72.3	77.6	72.2	6862	78.3
1996	2245.5	439.0	58.4	72.3	58.4	71.7	58.2	71.6	5154	58.7
1997	2923.6	439.0	76.2	72.5	76.2	71.8	76.0	71.8	6712	76.6
1998	3845.4	439.0	100.0	73.6	100.0	73.0	100.0	72.9	8760	100.0
1999	3359.3	439.0	87.4	74.1	87.4	73.5	87.4	73.5	7657	87.4
2000	1381.2	439.0	35.8	72.7	35.8	72.1	35.8	72.1	3149	35.8
2001	2844.6	439.0	74.1	72.7	74.1	72.2	74.0	72.2	6488	74.1
2002	3393.2	439.0	88.2	73.3	88.2	72.8	88.2	72.7	7730	88.2
2003	2749.0	439.0	71.4	73.2	71.4	72.7	71.5	72.7	6253	71.4
2004	3937.9	439.0	100.0	74.1	100.0	73.6	102.1	73.6	8784	100.0
2005	2382.3	439.0	60.8	73.7	60.8	73.2	61.9	73.3	5349	61.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		2251			14	
C. Inspection, maintenance or repair combined with refuelling	1375			2019		
D. Inspection, maintenance or repair without refuelling				76		
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					10	
Z. Others					12	
Subtotal	1375	2251	0	2095	36	3
Total		3626			2134	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
14. Safety Systems	146	
15. Reactor Cooling Systems	2105	12
31. Turbine and auxiliaries		2
Total	2251	14

JP-41 SHIMANE-2**Operator:** CHUGOKU (CHUGOKU ELECTRIC POWER CO.)**Contractor:** HITACHI (HITACHI LTD.)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 789.0 MW(e)

Design Net Capacity: 789.0 MW(e)

Design Discharge Burnup: 45000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5907.5 GW(e).h

Energy Availability Factor: 85.4%

Load Factor: 85.5%

Operating Factor: 86.1%

Energy Unavailability Factor: 14.6%

Total Off-line Time: 1216 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	429.0	479.4	562.3	589.4	380.2	582.8	578.2	566.2	585.6	567.2	587.3	5907.5
EAF (%)	0.0	81.0	81.0	98.5	100.0	66.9	99.4	98.6	99.6	99.8	100.0	99.8	85.4
UCF (%)	0.0	81.0	81.0	98.5	100.0	66.9	100.0	99.9	100.0	100.0	100.0	99.8	85.6
LF (%)	0.0	80.9	81.7	99.1	100.4	66.9	99.3	98.5	99.7	99.6	99.8	100.1	85.5
OF (%)	0.0	82.7	82.3	100.1	100.0	68.9	100.0	100.0	100.0	99.9	100.0	100.0	86.1
EUF (%)	100.0	19.0	19.0	1.5	0.0	33.1	0.6	1.4	0.4	0.2	0.0	0.2	14.6
PUF (%)	100.0	19.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	10.0
UCLF (%)	0.0	0.0	19.0	1.6	0.0	33.1	0.0	0.0	0.0	0.0	0.0	0.0	4.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	0.4	0.2	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 02 Feb 1985 **Lifetime Generation:** 99214.0 GW(e).h

Date of First Criticality: 25 May 1988 **Cumulative Energy Availability Factor:** 83.5%

Date of Grid Connection: 11 Jul 1988 **Cumulative Load Factor:** 83.3%

Date of Commercial Operation: 10 Feb 1989 **Cumulative Unit Capability Factor:** 83.5%

Cumulative Energy Unavailability Factor: 16.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	5628.8	791.0	89.2	89.2	89.2	89.2	88.8	88.8	7179	89.6
1990	5123.5	790.0	74.0	81.3	74.0	81.3	74.0	81.1	6592	75.3
1991	5544.5	790.0	80.1	80.9	80.1	80.9	80.1	80.8	7121	81.3
1992	5516.1	790.0	79.7	80.6	79.7	80.6	79.5	80.4	7072	80.5
1993	6756.9	790.0	97.8	84.1	97.8	84.1	97.6	83.9	8592	98.1
1994	5547.3	790.0	80.6	83.5	80.6	83.5	80.2	83.3	7071	80.7
1995	5363.6	790.0	77.9	82.7	77.9	82.7	77.5	82.5	6888	78.6
1996	5583.7	790.0	80.8	82.4	80.8	82.4	80.5	82.2	7166	81.6
1997	6903.2	789.0	100.0	84.4	100.0	84.4	99.9	84.2	8760	100.0
1998	5962.5	789.0	86.5	84.6	86.5	84.6	86.3	84.4	7600	86.8
1999	5758.7	789.0	83.5	84.5	83.5	84.5	83.3	84.3	7319	83.6
2000	6084.0	789.0	88.2	84.8	88.1	84.8	87.8	84.6	7747	88.2
2001	6901.0	789.0	100.0	86.0	100.0	86.0	99.8	85.8	8760	100.0
2002	6055.1	789.0	87.6	86.1	87.6	86.1	87.6	85.9	7678	87.6
2003	4836.2	789.0	70.1	85.0	70.0	85.0	70.0	84.8	6133	70.0
2004	4097.6	789.0	59.0	83.4	59.0	83.4	59.1	83.2	5202	59.2
2005	5907.5	789.0	85.6	83.5	85.4	83.5	85.5	83.3	7544	86.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		497			141	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	930			1142		
D. Inspection, maintenance or repair without refuelling				6		
Z. Others					35	
Subtotal	930	497	0	1148	182	0
Total	1427			1330		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		21
15. Reactor Cooling Systems	497	64
Total	497	91

JP-8 TAKAHAMA-1

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)

Contractor: WH/MHI (WESTINGHOUSE ELECTRIC CORPORATION / MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 780.0 MW(e)
Design Net Capacity: 780.0 MW(e)
Design Discharge Burnup: 32000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6222.5 GW(e).h
Energy Availability Factor: 87.1%
Load Factor: 91.1%
Operating Factor: 87.4%
Energy Unavailability Factor: 12.9%
Total Off-line Time: 1101 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	609.0	549.1	610.2	590.9	610.0	586.9	600.0	260.8	8.4	601.2	587.9	608.2	6222.5
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	43.9	1.4	99.3	100.0	100.0	87.1
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	43.9	1.4	99.3	100.0	100.0	87.1
LF (%)	104.9	104.8	105.1	105.4	105.1	104.5	103.4	44.9	1.5	103.5	104.7	104.8	91.1
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	44.5	4.4	99.9	100.0	100.0	87.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.1	98.6	0.7	0.0	0.0	12.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.1	98.6	0.7	0.0	0.0	12.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/08/14-2005/10/02)

5. Historical Summary

Date of Construction Start:	25 Apr 1970	Lifetime Generation:	143771.0 GW(e).h
Date of First Criticality:	14 Mar 1974	Cumulative Energy Availability Factor:	67.0%
Date of Grid Connection:	27 Mar 1974	Cumulative Load Factor:	67.5%
Date of Commercial Operation:	14 Nov 1974	Cumulative Unit Capability Factor:	67.1%
		Cumulative Energy Unavailability Factor:	33.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	1059.8	780.0	94.0	94.0	94.0	94.0	92.8	92.8	1376	94.0
1975	4980.4	780.0	72.9	75.9	72.8	75.9	72.9	75.7	6938	79.2
1976	3170.1	780.0	46.2	62.2	46.2	62.1	46.3	62.1	4900	55.8
1977	383.8	780.0	5.6	44.3	5.6	44.3	5.6	44.3	569	6.5
1978	2762.5	780.0	40.4	43.4	40.4	43.4	40.4	43.4	4088	46.7
1979	1648.9	780.0	24.1	39.7	24.1	39.7	24.1	39.6	2269	25.9
1980	2705.1	780.0	39.4	39.6	39.4	39.6	39.5	39.6	3604	41.0
1981	3990.2	780.0	58.3	42.2	58.3	42.2	58.4	42.2	5180	59.1
1982	3872.1	780.0	56.5	44.0	56.5	44.0	56.7	44.0	5085	58.0
1983	5716.2	780.0	83.7	48.3	83.7	48.3	83.7	48.3	7403	84.5
1984	3537.4	780.0	51.4	48.6	51.4	48.6	51.6	48.7	4586	52.2
1985	5000.8	780.0	72.8	50.8	72.8	50.8	73.2	50.8	6473	73.9
1986	5070.3	780.0	73.9	52.7	73.9	52.7	74.2	52.8	6507	74.3
1987	4701.4	780.0	70.2	54.0	70.2	54.0	68.8	54.0	6148	70.2
1988	4147.1	780.0	60.9	54.5	60.9	54.5	60.5	54.4	5351	60.9
1989	4877.3	780.0	72.0	55.7	72.0	55.6	71.4	55.6	6311	72.0
1990	6265.5	780.0	90.8	57.8	90.8	57.8	91.7	57.8	8002	91.3
1991	4795.0	780.0	68.2	58.4	68.2	58.4	70.2	58.5	6202	70.8
1992	4645.0	780.0	67.6	58.9	67.6	58.9	67.8	59.0	6051	68.9
1993	3299.7	780.0	48.4	58.4	48.4	58.4	48.3	58.5	4458	50.9
1994	4024.0	780.0	58.8	58.4	58.8	58.4	58.9	58.5	5146	58.7
1995	6585.1	780.0	96.0	60.2	96.0	60.2	96.4	60.3	8485	96.9
1996	3358.8	780.0	48.8	59.7	48.8	59.7	49.0	59.8	4331	49.3
1997	4674.4	780.0	68.1	60.0	68.1	60.0	68.4	60.1	6000	68.5
1998	6856.8	780.0	100.0	61.7	100.0	61.7	100.4	61.8	8760	100.0
1999	5704.2	780.0	84.3	62.6	83.2	62.5	83.5	62.7	7291	83.2
2000	6008.1	780.0	87.4	63.5	87.4	63.5	87.7	63.6	7716	87.8
2001	6005.8	780.0	87.6	64.4	87.6	64.4	87.9	64.5	7731	88.3
2002	6056.3	780.0	88.4	65.3	88.4	65.2	88.6	65.4	7749	88.5
2003	6247.2	780.0	87.2	66.0	87.2	66.0	91.4	66.3	7637	87.2
2004	5539.9	780.0	77.2	66.4	77.2	66.4	80.9	66.8	6785	77.2
2005	6222.5	780.0	87.1	67.1	87.1	67.0	91.1	67.5	7659	87.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					413	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1165			2025		
D. Inspection, maintenance or repair without refuelling				222		
E. Testing of plant systems or components				0		
J. Grid failure or grid unavailability						2
Z. Others					10	
Subtotal	1165	0	0	2247	424	2
Total	1165			2673		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		7
15. Reactor Cooling Systems		103
16. Steam generation systems		255
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System		27
42. Electrical Power Supply Systems		0
Total	0	409

JP-13 TAKAHAMA-2

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)
Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 780.0 MW(e)
Design Net Capacity: 780.0 MW(e)
Design Discharge Burnup: 32000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6249.5 GW(e).h
Energy Availability Factor: 86.7%
Load Factor: 91.5%
Operating Factor: 87.0%
Energy Unavailability Factor: 13.3%
Total Off-line Time: 1135 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	209.3	614.8	594.9	615.0	593.6	608.3	603.9	587.4	612.9	594.6	614.7	6249.5
EAF (%)	0.0	38.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.7
UCF (%)	0.0	38.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.7
LF (%)	0.0	39.9	105.9	106.1	106.0	105.7	104.8	104.1	104.6	105.5	105.9	105.9	91.5
OF (%)	0.0	41.8	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	87.0
EUF (%)	100.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
PUF (%)	100.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2004/12/17-2005/02/19)

5. Historical Summary

Date of Construction Start:	09 Mar 1971	Lifetime Generation:	141283.0 GW(e).h
Date of First Criticality:	20 Dec 1974	Cumulative Energy Availability Factor:	67.8%
Date of Grid Connection:	17 Jan 1975	Cumulative Load Factor:	68.6%
Date of Commercial Operation:	14 Nov 1975	Cumulative Unit Capability Factor:	67.9%
		Cumulative Energy Unavailability Factor:	32.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	1147.0	780.0	100.0	100.0	99.5	99.5	100.4	100.4	1464	100.0
1976	3728.8	780.0	54.2	60.7	54.2	60.7	54.4	61.0	6214	70.7
1977	4742.0	780.0	69.4	64.7	69.4	64.7	69.4	64.9	6429	73.4
1978	4170.3	780.0	61.0	63.6	61.0	63.5	61.0	63.7	5751	65.7
1979	1281.0	780.0	18.7	52.8	18.7	52.8	18.7	52.9	1826	20.8
1980	5751.1	780.0	83.7	58.8	83.7	58.8	83.9	58.9	7450	84.8
1981	4763.2	780.0	69.6	60.5	69.6	60.5	69.7	60.7	6198	70.8
1982	4133.9	780.0	60.3	60.5	60.3	60.5	60.5	60.6	5407	61.7
1983	3549.4	780.0	51.7	59.4	51.7	59.4	51.9	59.6	4645	53.0
1984	4503.1	780.0	65.4	60.1	65.4	60.1	65.7	60.2	5746	65.4
1985	4967.4	780.0	72.4	61.3	72.4	61.3	72.7	61.5	6466	73.8
1986	3997.8	780.0	58.4	61.0	58.4	61.0	58.5	61.2	5183	59.2
1987	4621.8	780.0	70.3	61.8	67.3	61.5	67.6	61.7	6154	70.3
1988	3071.3	780.0	45.5	60.6	45.5	60.3	44.8	60.4	4001	45.5
1989	3991.5	780.0	59.5	60.5	59.5	60.3	58.4	60.3	5213	59.5
1990	1727.9	780.0	20.8	57.9	20.8	57.7	25.3	58.0	2218	25.3
1991	2265.8	780.0	32.2	56.3	32.2	56.1	33.2	56.5	3054	34.9
1992	4873.8	780.0	70.8	57.1	70.8	57.0	71.1	57.3	6226	70.9
1993	5757.0	780.0	84.0	58.6	84.0	58.4	84.3	58.8	7426	84.8
1994	3357.3	780.0	49.3	58.1	49.3	58.0	49.1	58.3	4299	49.1
1995	4458.7	780.0	65.1	58.5	65.1	58.3	65.3	58.6	5906	67.4
1996	6709.1	780.0	97.7	60.3	97.3	60.2	97.9	60.5	8629	98.2
1997	4981.2	780.0	72.5	60.9	72.5	60.7	72.9	61.1	6306	72.0
1998	5972.9	780.0	87.0	62.0	87.0	61.9	87.4	62.2	7657	87.4
1999	5989.8	780.0	87.2	63.0	87.2	62.9	87.7	63.2	7717	88.1
2000	6849.9	780.0	99.5	64.5	99.5	64.4	100.0	64.7	8784	100.0
2001	5901.0	780.0	86.0	65.3	86.0	65.2	86.4	65.5	7572	86.4
2002	6097.7	780.0	87.0	66.1	87.0	66.0	89.2	66.4	7626	87.1
2003	5470.8	780.0	76.4	66.5	76.4	66.4	80.1	66.9	6717	76.7
2004	6346.6	780.0	89.3	67.3	88.9	67.1	92.6	67.8	7839	89.2
2005	6249.5	780.0	86.7	67.9	86.7	67.8	91.5	68.6	7625	87.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					144	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	1192			2458		
D. Inspection, maintenance or repair without refuelling				11		
Z. Others					19	
Subtotal	1192	0	0	2469	169	0
Total		1192			2638	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		42
16. Steam generation systems		88
31. Turbine and auxiliaries		3
32. Feedwater and Main Steam System		8
42. Electrical Power Supply Systems		1
Total	0	142

JP-29 TAKAHAMA-3

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)
Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 830.0 MW(e)
Design Net Capacity: 830.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5738.4 GW(e).h
Energy Availability Factor: 75.6%
Load Factor: 78.9%
Operating Factor: 76.0%
Energy Unavailability Factor: 24.4%
Total Off-line Time: 2104 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	644.8	581.6	645.1	414.4	0.0	0.0	272.9	641.9	622.5	644.4	624.2	646.7	5738.4
EAF (%)	100.0	100.0	100.0	66.3	0.0	0.0	42.4	100.0	100.0	100.0	100.0	100.0	75.6
UCF (%)	100.0	100.0	100.0	66.3	0.0	0.0	42.4	100.0	100.0	100.0	100.0	100.0	75.6
LF (%)	104.4	104.3	104.5	69.4	0.0	0.0	44.2	104.0	104.2	104.2	104.5	104.7	78.9
OF (%)	100.0	100.0	100.0	66.9	0.0	0.0	46.1	100.0	100.0	99.9	100.0	100.0	76.0
EUF (%)	0.0	0.0	0.0	33.7	100.0	100.0	57.6	0.0	0.0	0.0	0.0	0.0	24.4
PUF (%)	0.0	0.0	0.0	33.7	100.0	100.0	3.7	0.0	0.0	0.0	0.0	0.0	19.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	53.9	0.0	0.0	0.0	0.0	0.0	4.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/04/30-2005/07/20)

5. Historical Summary

Date of Construction Start: 12 Dec 1980
Date of First Criticality: 17 Apr 1984
Date of Grid Connection: 09 May 1984
Date of Commercial Operation: 17 Jan 1985

Lifetime Generation: 130205.0 GW(e).h
Cumulative Energy Availability Factor: 83.9%
Cumulative Load Factor: 85.4%
Cumulative Unit Capability Factor: 84.0%
Cumulative Energy Unavailability Factor: 16.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	6199.5	830.0	84.7	84.7	84.7	84.7	85.3	85.3	7426	84.8
1986	6833.6	830.0	93.1	88.9	93.1	88.9	94.0	89.6	8215	93.8
1987	6030.4	830.0	82.9	86.9	82.9	86.9	82.9	87.4	7265	82.9
1988	5743.2	830.0	79.1	85.0	79.1	85.0	78.8	85.2	6948	79.1
1989	5987.2	830.0	81.5	84.3	81.5	84.3	82.3	84.7	7138	81.5
1990	6775.0	830.0	91.9	85.5	91.9	85.5	93.2	86.1	8143	93.0
1991	5513.6	830.0	73.9	83.9	73.9	83.9	75.8	84.6	6641	75.8
1992	6059.9	830.0	82.2	83.7	82.2	83.7	83.1	84.4	7292	83.0
1993	5804.8	830.0	77.6	83.0	77.6	83.0	79.8	83.9	6983	79.7
1994	7361.1	830.0	100.0	84.7	100.0	84.7	101.2	85.6	8760	100.0
1995	5662.9	830.0	77.0	84.0	77.0	84.0	77.9	84.9	6809	77.7
1996	5479.3	830.0	74.2	83.2	74.2	83.2	75.2	84.1	6576	74.9
1997	6028.9	830.0	81.9	83.1	81.9	83.1	82.9	84.0	7206	82.3
1998	6853.7	830.0	93.1	83.8	93.1	83.8	94.3	84.8	8161	93.2
1999	6833.4	830.0	93.9	84.5	92.8	84.4	94.0	85.4	8131	92.8
2000	5898.9	830.0	79.9	84.2	79.9	84.1	80.9	85.1	7023	80.0
2001	6167.2	830.0	83.8	84.2	83.8	84.1	84.8	85.1	7340	83.8
2002	6463.3	830.0	87.3	84.3	87.3	84.3	88.9	85.3	7654	87.4
2003	7355.7	830.0	96.1	84.9	96.1	84.9	101.2	86.1	8421	96.1
2004	5625.1	830.0	74.1	84.4	74.1	84.4	77.2	85.7	6512	74.1
2005	5738.4	830.0	75.6	84.0	75.6	83.9	78.9	85.4	6656	76.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	1767	401		1235	1	4
C. Inspection, maintenance or repair combined with refuelling						
H. Nuclear regulatory requirements						
J. Grid failure or grid unavailability					48	
Z. Others						
Subtotal	1767	401	0	1235	49	4
Total	2168			1288		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		1
Total	0	1

JP-30 TAKAHAMA-4

Operator: KEPCO (KANSAI ELECTRIC POWER CO.)
Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 830.0 MW(e)
Design Net Capacity: 830.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6633.2 GW(e).h
Energy Availability Factor: 87.4%
Load Factor: 91.2%
Operating Factor: 87.4%
Energy Unavailability Factor: 12.6%
Total Off-line Time: 1103 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	647.3	585.0	648.0	626.8	646.5	623.4	640.4	639.9	620.6	644.9	310.5	0.0	6633.2
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	49.6	0.0	87.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	49.7	0.0	87.4
LF (%)	104.8	104.9	104.9	105.0	104.7	104.3	103.7	103.6	103.8	104.3	51.9	0.0	91.2
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	50.1	0.0	87.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.4	100.0	12.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.4	100.0	12.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

PERIODICAL INSPECTION AND REFUELLING.(2005/11/15-)

5. Historical Summary

Date of Construction Start: 19 Mar 1981
Date of First Criticality: 11 Oct 1984
Date of Grid Connection: 01 Nov 1984
Date of Commercial Operation: 05 Jun 1985

Lifetime Generation: 128764.0 GW(e).h
Cumulative Energy Availability Factor: 84.5%
Cumulative Load Factor: 86.0%
Cumulative Unit Capability Factor: 84.5%
Cumulative Energy Unavailability Factor: 15.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	4314.3	830.0	100.0	100.0	100.0	100.0	101.2	101.2	5136	100.0
1986	5864.0	830.0	79.6	87.1	79.6	87.1	80.7	88.2	7073	80.7
1987	5588.5	830.0	77.0	83.2	77.0	83.2	76.9	83.8	6743	77.0
1988	6437.9	830.0	87.3	84.3	87.3	84.3	88.3	85.1	7666	87.3
1989	6802.7	830.0	93.2	86.3	93.2	86.3	93.6	86.9	8167	93.2
1990	5174.6	830.0	69.0	83.2	69.0	83.2	71.2	84.1	6233	71.2
1991	6170.1	830.0	83.1	83.2	83.1	83.2	84.9	84.2	7409	84.6
1992	6048.4	830.0	81.9	83.0	81.9	83.0	83.0	84.1	7265	82.7
1993	7210.9	830.0	97.9	84.7	97.9	84.7	99.2	85.8	8578	97.9
1994	5767.2	830.0	78.5	84.1	78.5	84.1	79.3	85.1	6861	78.3
1995	5651.8	830.0	76.7	83.4	76.7	83.4	77.7	84.4	6785	77.5
1996	5666.5	830.0	76.7	82.8	76.7	82.8	77.7	83.9	6785	77.2
1997	7367.3	830.0	100.0	84.2	100.0	84.2	101.3	85.2	8760	100.0
1998	6470.2	830.0	87.8	84.4	87.8	84.4	89.0	85.5	7727	88.2
1999	5500.3	830.0	75.8	83.8	74.6	83.8	75.6	84.8	6542	74.7
2000	6099.0	830.0	82.6	83.8	82.6	83.7	83.7	84.8	7254	82.6
2001	7364.6	830.0	100.0	84.7	100.0	84.7	101.3	85.8	8760	100.0
2002	6145.5	830.0	83.5	84.7	83.5	84.6	84.5	85.7	7316	83.5
2003	6490.2	830.0	86.0	84.7	86.0	84.7	89.3	85.9	7531	86.0
2004	5987.8	830.0	78.2	84.4	78.2	84.3	82.1	85.7	6868	78.2
2005	6633.2	830.0	87.4	84.5	87.4	84.5	91.2	86.0	7657	87.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	1109			1242	12	4
C. Inspection, maintenance or repair combined with refuelling						
J. Grid failure or grid unavailability						
Z. Others					15	
Subtotal	1109	0	0	1242	27	4
Total	1109			1273		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		12
Total	0	12

JP-21 TOKAI-2

Operator: JAPC (JAPAN ATOMIC POWER CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1060.0 MW(e)
Design Net Capacity: 1060.0 MW(e)
Design Discharge Burnup: 39500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5259.5 GW(e).h
Energy Availability Factor: 55.8%
Load Factor: 56.6%
Operating Factor: 56.1%
Energy Unavailability Factor: 44.2%
Total Off-line Time: 3846 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	801.1	723.1	800.5	563.7	0.0	0.0	0.0	0.0	4.4	792.7	774.2	799.9	5259.5
EAF (%)	100.0	100.0	100.0	72.7	0.0	0.0	0.0	0.0	0.6	99.4	100.0	100.0	55.8
UCF (%)	100.0	100.0	100.0	72.7	0.0	0.0	0.0	0.0	0.6	99.4	100.0	100.0	55.8
LF (%)	101.6	101.5	101.5	74.0	0.0	0.0	0.0	0.0	0.6	100.4	101.4	101.4	56.6
OF (%)	100.0	100.0	100.0	73.4	0.0	0.0	0.0	0.0	2.5	99.9	100.0	100.0	56.1
EUF (%)	0.0	0.0	0.0	27.3	100.0	100.0	100.0	100.0	99.4	0.6	0.0	0.0	44.2
PUF (%)	0.0	0.0	0.0	27.3	100.0	100.0	74.2	0.0	0.9	0.6	0.0	0.0	25.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	25.8	100.0	98.5	0.0	0.0	0.0	18.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	03 Oct 1973	Lifetime Generation:	186815.0 GW(e).h
Date of First Criticality:	18 Jan 1978	Cumulative Energy Availability Factor:	73.2%
Date of Grid Connection:	13 Mar 1978	Cumulative Load Factor:	72.8%
Date of Commercial Operation:	28 Nov 1978	Cumulative Unit Capability Factor:	73.4%
		Cumulative Energy Unavailability Factor:	26.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	0.0	1056.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1979	5209.5	1056.0	56.3	62.6	56.3	62.6	56.3	48.3	5481	62.6
1980	6743.2	1056.0	72.6	67.2	72.6	67.2	72.7	59.5	6597	75.1
1981	6059.1	1056.0	65.3	66.6	65.3	66.6	65.5	61.4	6037	68.9
1982	5571.6	1056.0	59.6	64.9	59.6	64.9	60.2	61.1	5338	60.9
1983	6556.6	1056.0	70.5	66.0	70.5	66.0	70.9	63.0	6327	72.2
1984	8695.2	1056.0	93.5	70.5	93.5	70.5	93.7	68.0	8240	93.8
1985	6957.5	1056.0	75.0	71.1	75.0	71.1	75.2	69.0	6625	75.6
1986	5797.6	1056.0	62.5	70.0	62.5	70.0	62.7	68.2	5508	62.9
1987	7040.5	1056.0	76.5	70.7	76.5	70.7	76.1	69.1	6776	77.4
1988	6088.4	1056.0	66.0	70.3	66.0	70.3	65.6	68.8	5872	66.8
1989	8435.0	1056.0	91.2	72.1	91.2	72.1	91.2	70.8	8006	91.4
1990	7291.6	1056.0	78.9	72.7	78.9	72.7	78.8	71.4	6948	79.3
1991	7025.3	1056.0	76.1	73.0	76.1	73.0	75.9	71.8	6716	76.7
1992	6307.7	1080.0	68.6	72.6	68.5	72.6	66.5	71.4	5990	68.2
1993	8707.2	1080.0	93.8	74.1	93.8	74.1	92.0	72.8	8252	94.2
1994	7325.8	1056.0	78.9	74.4	78.9	74.4	79.2	73.2	6938	79.2
1995	6845.0	1056.0	73.7	74.3	73.7	74.3	74.0	73.2	6488	74.1
1996	7562.1	1056.0	80.8	74.7	80.7	74.7	81.5	73.7	7169	81.6
1997	8884.5	1056.0	95.7	75.8	95.6	75.8	96.0	74.8	8404	95.9
1998	6999.4	1056.0	75.1	75.7	75.0	75.7	75.7	74.9	6642	75.8
1999	2316.1	1056.0	25.4	73.4	24.9	73.3	25.0	72.5	2228	25.4
2000	7031.6	1056.0	76.3	73.5	75.4	73.4	75.8	72.7	6626	75.4
2001	5833.2	1056.0	62.7	73.0	62.7	73.0	63.1	72.3	5641	64.4
2002	6420.1	1056.0	70.0	72.9	68.9	72.8	69.4	72.1	6061	69.2
2003	9176.5	1056.0	98.6	73.9	98.5	73.8	99.2	73.2	8635	98.6
2004	7195.4	1060.0	76.5	74.0	76.3	73.9	77.3	73.4	6723	76.5
2005	5259.5	1060.0	55.8	73.4	55.8	73.2	56.6	72.8	4914	56.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					355	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	2214			1719		
D. Inspection, maintenance or repair without refuelling				35		
J. Grid failure or grid unavailability						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					23	
Subtotal	2214	0	0	1754	378	5
Total	2214			2137		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		220
13. Reactor Auxiliary Systems		5
14. Safety Systems		33
15. Reactor Cooling Systems		44
31. Turbine and auxiliaries		15
32. Feedwater and Main Steam System		22
42. Electrical Power Supply Systems		13
Total	0	352

JP-43 TOMARI-1**Operator:** HEPCO (HOKKAIDO ELECTRIC POWER CO.,INC.)**Contractor:** MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 550.0 MW(e)

Design Net Capacity: 550.0 MW(e)

Design Discharge Burnup: 41000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4818.8 GW(e).h

Energy Availability Factor: 98.3%

Load Factor: 100.0%

Operating Factor: 98.4%

Energy Unavailability Factor: 1.7%

Total Off-line Time: 144 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	415.4	375.8	416.4	403.2	417.3	404.1	416.2	413.7	400.4	416.3	405.0	335.1	4818.8
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.1	98.3
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.1	98.3
LF (%)	101.5	101.7	101.8	101.9	102.0	102.0	101.7	101.1	101.1	101.6	102.3	81.9	100.0
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	80.6	98.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	1.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	1.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 12 Jul 1985 **Lifetime Generation:** 69251.0 GW(e).h

Date of First Criticality: 16 Nov 1988 **Cumulative Energy Availability Factor:** 85.5%

Date of Grid Connection: 06 Dec 1988 **Cumulative Load Factor:** 86.2%

Date of Commercial Operation: 22 Jun 1989 **Cumulative Unit Capability Factor:** 85.5%

Cumulative Energy Unavailability Factor: 14.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	2802.8	550.0	99.6	99.6	99.6	99.6	99.2	99.2	5136	100.0
1990	3830.7	550.0	79.5	86.9	79.5	86.9	79.5	86.8	7092	81.0
1991	3540.4	550.0	73.5	81.7	73.5	81.7	73.5	81.6	6588	75.2
1992	3646.4	550.0	75.9	80.1	75.9	80.1	75.5	79.9	6780	77.2
1993	4795.2	550.0	100.0	84.4	100.0	84.4	99.5	84.2	8760	100.0
1994	3903.9	550.0	81.4	83.9	81.4	83.9	81.0	83.6	7208	82.3
1995	3946.3	550.0	81.9	83.6	81.9	83.6	81.9	83.4	7175	81.9
1996	3750.4	550.0	78.1	82.8	78.1	82.8	77.6	82.6	6920	78.8
1997	4795.6	550.0	100.0	84.8	100.0	84.8	99.5	84.6	8760	100.0
1998	4239.1	550.0	83.1	84.7	83.1	84.7	88.0	84.9	7373	84.2
1999	4074.6	550.0	79.7	84.2	79.7	84.2	84.6	84.9	6986	79.7
2000	4168.5	550.0	86.5	84.4	86.5	84.4	86.3	85.0	7598	86.5
2001	4804.0	550.0	100.0	85.6	100.0	85.6	99.7	86.2	8760	100.0
2002	4177.3	550.0	86.9	85.7	86.9	85.7	86.7	86.2	7614	86.9
2003	3821.7	550.0	78.7	85.2	78.7	85.2	79.3	85.8	6893	78.7
2004	3788.8	550.0	77.0	84.7	77.0	84.7	78.4	85.3	6762	77.0
2005	4818.8	550.0	98.3	85.5	98.3	85.5	100.0	86.2	8616	98.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					30	
C. Inspection, maintenance or repair combined with refuelling	149			1199		
Z. Others					33	
Subtotal	149	0	0	1199	63	0
Total	149			1262		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
32. Feedwater and Main Steam System		30
Total	0	30

JP-44 TOMARI-2**Operator:** HEPCO (HOKKAIDO ELECTRIC POWER CO.,INC.)**Contractor:** MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 550.0 MW(e)

Design Net Capacity: 550.0 MW(e)

Design Discharge Burnup: 41000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4252.6 GW(e).h

Energy Availability Factor: 86.0%

Load Factor: 88.3%

Operating Factor: 86.4%

Energy Unavailability Factor: 14.0%

Total Off-line Time: 1189 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	421.5	380.9	421.9	408.2	422.2	407.4	418.3	51.6	80.5	417.5	404.4	418.5	4252.6
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	12.4	20.2	100.0	100.0	100.0	86.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	12.4	20.2	100.0	100.0	100.0	86.0
LF (%)	103.0	103.1	103.1	103.2	103.2	102.9	102.2	12.6	20.3	101.9	102.1	102.3	88.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	12.9	24.9	99.9	100.0	100.0	86.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.6	79.8	0.0	0.0	0.0	14.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.6	79.8	0.0	0.0	0.0	14.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 08 May 1986 **Lifetime Generation:** 60901.0 GW(e).h

Date of First Criticality: 25 Jul 1990 **Cumulative Energy Availability Factor:** 83.6%

Date of Grid Connection: 27 Aug 1990 **Cumulative Load Factor:** 84.7%

Date of Commercial Operation: 12 Apr 1991 **Cumulative Unit Capability Factor:** 83.6%

Cumulative Energy Unavailability Factor: 16.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1991	2759.6	550.0	76.0	76.0	76.0	76.0	76.0	76.0	5076	76.9
1992	3639.6	550.0	75.5	75.7	75.5	75.7	75.3	75.6	6756	76.9
1993	3847.5	550.0	80.0	77.3	80.0	77.3	79.9	77.2	7092	81.0
1994	4511.6	550.0	93.9	81.7	93.9	81.7	93.6	81.6	8232	94.0
1995	4161.9	550.0	85.5	82.5	85.5	82.5	86.4	82.6	7567	86.4
1996	3933.6	550.0	81.5	82.3	81.5	82.3	81.4	82.4	7232	82.3
1997	3775.2	550.0	78.5	81.8	78.5	81.8	78.4	81.8	6943	79.3
1998	5071.6	550.0	100.0	84.1	100.0	84.1	105.3	84.8	8760	100.0
1999	4273.2	550.0	83.8	84.1	83.8	84.1	88.7	85.2	7344	83.8
2000	4107.5	550.0	85.1	84.2	85.1	84.2	85.0	85.2	7477	85.1
2001	3971.3	550.0	82.6	84.0	82.6	84.0	82.4	85.0	7235	82.6
2002	4516.1	550.0	93.9	84.9	93.9	84.9	93.7	85.7	8228	93.9
2003	3542.0	550.0	71.9	83.9	71.9	83.9	73.5	84.8	6300	71.9
2004	3864.7	550.0	78.1	83.4	78.1	83.4	80.0	84.4	6862	78.1
2005	4252.6	550.0	86.0	83.6	86.0	83.6	88.3	84.7	7571	86.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1991 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					114	
C. Inspection, maintenance or repair combined with refuelling	1281			1081		
D. Inspection, maintenance or repair without refuelling				101		
Subtotal	1281	0	0	1182	114	0
Total	1281			1296		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1991 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		114
Total	0	114

JP-3 TSURUGA-1

Operator: JAPC (JAPAN ATOMIC POWER CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 341.0 MW(e)
Design Net Capacity: 341.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2547.6 GW(e).h
Energy Availability Factor: 85.0%
Load Factor: 85.3%
Operating Factor: 86.4%
Energy Unavailability Factor: 15.0%
Total Off-line Time: 1192 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	256.1	231.2	255.9	247.7	255.8	246.5	252.8	250.8	207.1	254.6	88.6	0.4	2547.6
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	84.2	100.0	36.0	0.2	85.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	84.2	100.0	36.4	0.2	85.0
LF (%)	100.9	100.9	100.9	101.0	100.8	100.4	99.7	98.8	84.4	100.2	36.1	0.2	85.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	36.7	1.1	86.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	15.8	0.0	64.0	99.8	15.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	63.6	64.3	10.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8	0.0	0.0	35.5	4.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	24 Nov 1966	Lifetime Generation:	70812.0 GW(e).h
Date of First Criticality:	03 Oct 1969	Cumulative Energy Availability Factor:	68.1%
Date of Grid Connection:	16 Nov 1969	Cumulative Load Factor:	67.4%
Date of Commercial Operation:	14 Mar 1970	Cumulative Unit Capability Factor:	72.3%
		Cumulative Energy Unavailability Factor:	31.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1970	1797.0	357.0	100.0	100.0	68.5	68.5	68.5	68.5	5680	77.3
1971	2122.2	357.0	100.0	100.0	72.1	70.5	67.9	68.2	6312	72.1
1972	2272.2	357.0	100.0	100.0	76.0	72.4	72.5	69.7	7031	80.0
1973	2396.8	342.0	80.0	95.0	80.0	74.3	80.0	72.3	7485	85.4
1974	1819.1	320.0	64.9	89.2	64.9	72.5	64.9	70.9	6009	68.6
1975	1004.4	321.0	35.6	80.6	35.6	66.6	35.7	65.2	3301	37.7
1976	2036.3	340.0	68.4	78.8	68.4	66.9	68.2	65.7	6676	76.0
1977	1084.0	340.0	100.0	81.5	36.4	63.0	36.4	61.9	3548	40.5
1978	2039.8	340.0	68.5	80.0	68.5	63.6	68.5	62.7	6565	74.9
1979	1818.9	321.0	64.7	78.6	64.7	63.7	64.7	62.9	5873	67.0
1980	2063.1	321.0	73.1	78.1	73.1	64.5	73.2	63.8	6669	75.9
1981	663.4	340.0	27.1	73.7	27.1	61.4	22.3	60.2	2139	24.4
1982	1614.0	340.0	59.5	72.6	59.5	61.2	54.2	59.8	5245	59.9
1983	1972.1	340.0	71.3	72.5	69.8	61.8	66.2	60.2	6464	73.8
1984	2643.1	328.0	92.1	73.8	92.1	63.8	92.4	62.3	8129	92.5
1985	1703.6	340.0	57.3	72.8	57.3	63.4	57.2	62.0	5088	58.1
1986	2286.3	340.0	77.5	73.0	77.1	64.2	76.8	62.9	6863	78.3
1987	2349.2	340.0	80.2	73.5	80.2	65.1	78.9	63.8	7052	80.5
1988	2222.9	341.0	74.8	73.5	74.8	65.6	74.2	64.4	6611	75.3
1989	2457.7	341.0	82.8	74.0	82.8	66.5	82.3	65.3	7298	83.3
1990	1959.8	341.0	65.6	73.6	65.6	66.5	65.6	65.3	5822	66.5
1991	2255.9	341.0	76.6	73.7	76.1	66.9	75.5	65.8	6742	77.0
1992	1994.1	341.0	66.9	73.4	66.7	66.9	66.6	65.8	5914	67.3
1993	2623.7	341.0	87.5	74.0	87.5	67.8	87.8	66.7	7745	88.4
1994	1507.5	341.0	50.5	73.1	50.5	67.1	50.5	66.1	4477	51.1
1995	2328.7	341.0	79.7	73.3	77.3	67.5	78.0	66.5	7027	80.2
1996	2514.2	341.0	84.0	73.7	84.0	68.1	83.9	67.2	7411	84.4
1997	1936.1	341.0	64.8	73.4	64.8	68.0	64.8	67.1	5728	65.4
1998	1870.5	341.0	62.7	73.0	62.7	67.8	62.6	66.9	5528	63.1
1999	1845.0	341.0	63.2	72.7	62.5	67.6	61.8	66.8	5542	63.3
2000	0.0	341.0	0.0	70.3	0.0	65.4	0.0	64.6	0	0.0
2001	2584.5	341.0	86.6	70.8	86.6	66.1	86.5	65.3	7594	86.7
2002	2546.6	341.0	85.5	71.3	85.3	66.7	85.3	65.9	7495	85.6
2003	2426.3	341.0	81.0	71.6	80.7	67.1	81.2	66.3	7135	81.4
2004	2535.9	341.0	84.2	71.9	84.1	67.6	84.7	66.9	7395	84.2
2005	2547.6	341.0	85.0	72.3	85.0	68.1	85.3	67.4	7568	86.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		264			344	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	940			2179		
D. Inspection, maintenance or repair without refuelling				103		
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					11	
Subtotal	940	264	0	2282	355	3
Total		1204			2640	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		75
12. Reactor I&C Systems		108
14. Safety Systems		23
15. Reactor Cooling Systems		97
31. Turbine and auxiliaries	264	17
32. Feedwater and Main Steam System		6
42. Electrical Power Supply Systems		10
Total	264	336

JP-34 TSURUGA-2

Operator: JAPC (JAPAN ATOMIC POWER CO.)

Contractor: MHI (MITSUBISHI HEAVY INDUSTRIES LTD.)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1115.0 MW(e)

Design Net Capacity: 1115.0 MW(e)

Design Discharge Burnup: 48000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7693.6 GW(e).h

Energy Availability Factor: 77.6%

Load Factor: 78.8%

Operating Factor: 78.2%

Energy Unavailability Factor: 22.4%

Total Off-line Time: 1906 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	48.1	839.4	814.8	843.7	224.0	764.3	836.3	813.5	844.7	819.1	845.5	7693.6
EAF (%)	0.0	6.4	100.0	100.0	100.0	27.4	91.0	100.0	100.0	100.0	100.0	100.0	77.6
UCF (%)	0.0	6.4	100.0	100.0	100.0	27.4	91.0	100.0	100.0	100.0	100.0	100.0	77.6
LF (%)	0.0	6.4	101.2	101.6	101.7	27.9	92.1	100.8	101.3	101.7	102.0	101.9	78.8
OF (%)	0.0	11.5	100.0	100.1	100.0	28.2	93.3	100.0	100.0	99.9	100.0	100.0	78.2
EUF (%)	100.0	93.6	0.0	0.0	0.0	72.6	9.0	0.0	0.0	0.0	0.0	0.0	22.4
PUF (%)	100.0	93.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	72.6	9.0	0.0	0.0	0.0	0.0	0.0	6.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 06 Nov 1982

Date of First Criticality: 28 May 1986

Date of Grid Connection: 19 Jun 1986

Date of Commercial Operation: 17 Feb 1987

Lifetime Generation: 154178.0 GW(e).h

Cumulative Energy Availability Factor: 82.8%

Cumulative Load Factor: 82.8%

Cumulative Unit Capability Factor: 82.8%

Cumulative Energy Unavailability Factor: 17.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	8498.3	1115.0	95.4	95.4	95.4	95.4	95.1	95.1	7656	95.5
1988	7939.7	1115.0	81.3	88.0	81.3	88.0	81.1	87.8	7243	82.5
1989	7507.7	1115.0	77.0	84.2	77.0	84.2	76.9	84.0	6814	77.8
1990	7201.0	1115.0	72.9	81.3	72.9	81.3	73.7	81.4	6462	73.8
1991	9259.2	1115.0	95.1	84.1	95.1	84.1	94.8	84.1	8338	95.2
1992	8118.7	1115.0	82.5	83.9	82.5	83.9	82.9	83.9	7310	83.2
1993	7844.1	1115.0	80.2	83.3	80.2	83.3	80.3	83.4	7086	80.9
1994	7814.6	1115.0	80.2	82.9	80.2	82.9	80.0	83.0	7080	80.8
1995	9220.5	1115.0	94.5	84.2	94.5	84.2	94.4	84.2	8290	94.6
1996	8092.3	1115.0	83.0	84.1	83.0	84.1	82.6	84.1	7325	83.4
1997	6522.2	1115.0	67.0	82.5	67.0	82.5	66.8	82.5	5946	67.9
1998	8534.6	1115.0	92.0	83.3	92.0	83.3	87.4	82.9	7724	88.2
1999	5131.7	1115.0	52.7	81.0	52.7	81.0	52.5	80.6	4615	52.7
2000	8993.8	1115.0	92.1	81.8	92.1	81.8	91.8	81.4	8087	92.1
2001	8072.7	1115.0	82.9	81.8	82.9	81.8	82.6	81.5	7267	83.0
2002	8695.5	1115.0	88.4	82.2	88.4	82.2	89.0	81.9	7742	88.4
2003	8460.9	1115.0	84.7	82.4	84.7	82.4	86.6	82.2	7418	84.7
2004	9447.0	1115.0	95.2	83.1	95.2	83.1	96.5	83.0	8367	95.3
2005	7693.6	1115.0	77.6	82.8	77.6	82.8	78.8	82.8	6854	78.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		608			240	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	1406			1121		
P. Fire					15	
Subtotal	1406	608	0	1121	261	0
Total	2014			1382		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		217
14. Safety Systems	608	
15. Reactor Cooling Systems		22
Total	608	239

KR-1 KORI-1

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 556.0 MW(e)
Design Net Capacity: 564.0 MW(e)
Design Discharge Burnup: 13835 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4149.5 GW(e).h
Energy Availability Factor: 82.7%
Load Factor: 85.2%
Operating Factor: 83.4%
Energy Unavailability Factor: 17.3%
Total Off-line Time: 1456 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	426.7	386.1	96.8	11.5	274.8	415.4	427.2	426.9	411.0	427.9	415.2	429.9	4149.5
EAF (%)	100.0	100.0	23.1	5.0	65.2	100.0	99.8	100.0	99.9	100.0	100.0	100.0	82.7
UCF (%)	100.0	100.0	23.1	5.0	65.2	100.0	99.8	100.0	99.9	100.0	100.0	100.0	82.7
LF (%)	103.1	103.3	23.4	2.9	66.4	103.8	103.3	103.2	102.7	103.3	103.7	103.9	85.2
OF (%)	100.0	100.0	23.8	9.6	68.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	83.4
EUF (%)	0.0	0.0	76.9	95.0	34.8	0.0	0.2	0.0	0.1	0.0	0.0	0.0	17.3
PUF (%)	0.0	0.0	76.9	95.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Aug 1972	Lifetime Generation:	101476.0 GW(e).h
Date of First Criticality:	19 Jun 1977	Cumulative Energy Availability Factor:	76.5%
Date of Grid Connection:	26 Jun 1977	Cumulative Load Factor:	74.6%
Date of Commercial Operation:	29 Apr 1978	Cumulative Unit Capability Factor:	78.4%
		Cumulative Energy Unavailability Factor:	23.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	1721.9	555.0	51.0	51.0	47.0	47.0	47.0	47.0	4383	66.4
1979	2952.2	564.0	59.8	56.0	59.8	54.3	59.8	54.3	6558	74.9
1980	3258.4	564.0	79.7	64.7	79.7	63.6	65.8	58.5	6982	79.5
1981	2708.1	564.0	69.8	66.1	69.8	65.3	54.8	57.5	6092	69.5
1982	3559.2	556.0	100.0	73.1	73.1	66.9	73.1	60.8	6904	78.8
1983	3065.6	556.0	70.1	72.6	70.1	67.5	62.9	61.1	6142	70.1
1984	3236.3	556.0	67.3	71.8	67.3	67.4	66.3	61.9	6321	72.0
1985	3158.9	556.0	66.0	71.1	64.6	67.1	64.9	62.3	6364	72.6
1986	3279.5	556.0	72.8	71.3	72.8	67.7	67.3	62.8	6404	73.1
1987	4557.0	556.0	99.8	74.2	98.9	70.9	93.6	66.0	8653	98.8
1988	2221.0	556.0	50.6	72.0	50.6	69.0	45.5	64.1	4449	50.6
1989	2735.9	556.0	59.2	70.9	59.2	68.2	56.2	63.4	5256	60.0
1990	3500.1	556.0	74.6	71.2	74.6	68.7	71.9	64.1	6536	74.6
1991	4365.5	556.0	93.6	72.8	93.3	70.5	89.6	65.9	8172	93.3
1992	3640.3	556.0	76.9	73.1	76.9	70.9	74.5	66.5	6759	76.9
1993	3824.9	556.0	81.6	73.6	81.4	71.6	78.5	67.3	7131	81.4
1994	3223.4	564.0	66.2	73.2	65.8	71.2	65.2	67.1	5973	68.2
1995	3969.1	556.0	99.1	74.7	81.2	71.8	81.5	67.9	8704	99.4
1996	3748.4	556.0	78.6	74.9	76.6	72.0	76.7	68.4	6936	79.0
1997	3844.2	556.0	79.0	75.1	78.9	72.4	78.9	68.9	7080	80.8
1998	3783.7	556.0	78.7	75.2	78.7	72.7	77.7	69.4	6698	76.5
1999	4153.2	556.0	83.3	75.6	83.3	73.2	85.3	70.1	7418	84.7
2000	4514.3	556.0	89.2	76.2	89.2	73.9	92.4	71.1	7932	90.3
2001	4636.5	556.0	92.5	76.9	92.5	74.7	95.2	72.1	8144	93.0
2002	4147.0	556.0	84.0	77.2	84.0	75.0	85.1	72.6	8000	91.3
2003	4550.2	556.0	90.9	77.7	90.1	75.6	93.4	73.4	7978	91.1
2004	4637.7	556.0	92.0	78.2	92.0	76.2	95.0	74.2	8131	92.6
2005	4149.5	556.0	82.7	78.4	82.7	76.5	85.2	74.6	7304	83.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				1	348	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	1526			1253		
D. Inspection, maintenance or repair without refuelling				148		
E. Testing of plant systems or components				19	1	
J. Grid failure or grid unavailability						8
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						4
Subtotal	1526	0	0	1421	353	12
Total	1526			1786		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		9
15. Reactor Cooling Systems		29
16. Steam generation systems		82
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		47
35. All other I&C Systems		0
41. Main Generator Systems		113
42. Electrical Power Supply Systems		37
XX. Miscellaneous Systems		3
Total	0	347

KR-2 KORI-2

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 605.0 MW(e)
Design Net Capacity: 605.0 MW(e)
Design Discharge Burnup: 15050 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5151.5 GW(e).h
Energy Availability Factor: 92.1%
Load Factor: 97.2%
Operating Factor: 92.2%
Energy Unavailability Factor: 7.9%
Total Off-line Time: 680 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	136.2	431.6	477.9	462.1	477.8	462.0	350.1	475.2	459.4	477.2	463.3	478.7	5151.5
EAF (%)	28.8	100.0	100.0	100.0	100.0	100.0	77.7	100.0	100.0	100.0	100.0	100.0	92.1
UCF (%)	28.8	100.0	100.0	100.0	100.0	100.0	77.7	100.0	100.0	100.0	100.0	100.0	92.1
LF (%)	30.3	106.2	106.2	106.2	106.1	106.1	77.8	105.6	105.5	105.9	106.4	106.3	97.2
OF (%)	32.7	100.0	100.0	100.1	100.0	100.0	75.9	100.0	100.0	99.9	100.0	100.0	92.2
EUF (%)	71.2	0.0	0.0	0.0	0.0	0.0	22.3	0.0	0.0	0.0	0.0	0.0	7.9
PUF (%)	71.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	22.3	0.0	0.0	0.0	0.0	0.0	1.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 23 Dec 1977
Date of First Criticality: 09 Apr 1983
Date of Grid Connection: 22 Apr 1983
Date of Commercial Operation: 25 Jul 1983

Lifetime Generation: 104227.0 GW(e).h
Cumulative Energy Availability Factor: 85.6%
Cumulative Load Factor: 87.4%
Cumulative Unit Capability Factor: 85.7%
Cumulative Energy Unavailability Factor: 14.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983			Data not provided							
1984	4086.4	605.0	76.1	76.1	76.1	76.1	76.9	76.9	6876	78.3
1985	3731.4	605.0	69.8	73.0	69.8	73.0	70.4	73.7	6641	75.8
1986	3945.2	605.0	75.2	73.7	74.8	73.6	74.4	73.9	6555	74.8
1987	4265.4	605.0	82.1	75.8	81.6	75.6	80.5	75.6	7251	82.8
1988	4504.7	605.0	82.8	77.2	82.8	77.0	84.8	77.4	7275	82.8
1989	5062.8	605.0	95.7	80.3	95.7	80.2	95.5	80.4	8387	95.7
1990	4349.9	605.0	84.3	80.9	84.3	80.7	82.1	80.7	7381	84.3
1991	4554.0	605.0	85.8	81.5	85.8	81.4	85.9	81.3	7512	85.8
1992	4517.2	605.0	85.0	81.9	85.0	81.8	85.0	81.7	7469	85.0
1993	4187.0	605.0	80.5	81.7	80.5	81.6	79.0	81.5	7048	80.5
1994	4693.9	605.0	86.5	82.2	86.5	82.1	88.6	82.1	7685	87.7
1995	5106.6	605.0	94.8	83.2	94.7	83.1	96.4	83.3	8370	95.5
1996	4673.9	605.0	86.1	83.4	86.0	83.4	87.9	83.6	7668	87.3
1997	4620.3	605.0	86.8	83.7	86.6	83.6	87.2	83.9	7639	87.2
1998	4697.6	605.0	84.9	83.7	84.9	83.7	88.6	84.2	7541	86.1
1999	4672.2	605.0	83.6	83.7	83.6	83.7	88.2	84.5	7472	85.3
2000	4914.7	605.0	90.1	84.1	90.1	84.1	92.5	84.9	7812	88.9
2001	4807.8	605.0	87.3	84.3	87.3	84.2	90.7	85.3	7650	87.3
2002	5051.2	605.0	90.6	84.6	90.6	84.6	95.3	85.8	7982	91.1
2003	4844.2	605.0	86.5	84.7	85.4	84.6	91.4	86.1	7709	88.0
2004	5501.5	605.0	97.8	85.3	97.8	85.2	103.5	86.9	8602	97.9
2005	5151.5	605.0	92.1	85.7	92.1	85.6	97.2	87.4	8080	92.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		179			126	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	502			908		
D. Inspection, maintenance or repair without refuelling				42		
E. Testing of plant systems or components					0	
J. Grid failure or grid unavailability						6
Subtotal	502	179	0	950	130	6
Total		681			1086	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		26
15. Reactor Cooling Systems		6
16. Steam generation systems		3
31. Turbine and auxiliaries	179	30
32. Feedwater and Main Steam System		9
35. All other I&C Systems		0
41. Main Generator Systems		49
42. Electrical Power Supply Systems		0
Total	179	123

KR-5 KORI-3

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 895.0 MW(e)
 Design Net Capacity: 890.0 MW(e)
 Design Discharge Burnup: 17910 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7562.2 GW(e).h
 Energy Availability Factor: 89.4%
 Load Factor: 96.5%
 Operating Factor: 90.0%
 Energy Unavailability Factor: 10.6%
 Total Off-line Time: 875 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	718.4	649.4	719.1	695.7	718.5	437.0	84.1	715.9	691.3	716.7	696.2	719.9	7562.2
EAF (%)	100.0	100.0	100.0	100.0	100.0	62.7	11.8	100.0	100.0	100.0	100.0	100.0	89.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	62.7	11.8	100.0	100.0	100.0	100.0	100.0	89.4
LF (%)	107.9	108.0	108.0	108.1	107.9	67.8	12.6	107.5	107.3	107.5	108.0	108.1	96.5
OF (%)	100.0	100.0	100.0	100.1	100.0	64.9	16.4	100.0	100.0	99.9	100.0	100.0	90.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	37.3	88.2	0.0	0.0	0.0	0.0	0.0	10.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	37.3	88.2	0.0	0.0	0.0	0.0	0.0	10.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1979
 Date of First Criticality: 01 Jan 1985
 Date of Grid Connection: 22 Jan 1985
 Date of Commercial Operation: 30 Sep 1985

Lifetime Generation: 141222.0 GW(e).h
 Cumulative Energy Availability Factor: 84.7%
 Cumulative Load Factor: 88.0%
 Cumulative Unit Capability Factor: 84.8%
 Cumulative Energy Unavailability Factor: 15.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985			Data not provided							
1986	5611.7	895.0	73.3	73.3	73.3	73.3	71.6	71.6	6529	74.5
1987	5804.8	895.0	79.1	76.2	78.8	76.0	74.0	72.8	6665	76.1
1988	6119.7	895.0	79.7	77.4	79.7	77.3	77.8	74.5	7005	79.7
1989	6592.0	895.0	82.3	78.6	82.3	78.5	84.1	76.9	7206	82.3
1990	6838.1	895.0	90.4	81.0	90.4	80.9	87.2	79.0	7923	90.4
1991	5902.5	895.0	75.1	80.0	75.1	79.9	75.3	78.3	6578	75.1
1992	6746.2	895.0	83.7	80.5	83.7	80.5	85.8	79.4	7349	83.7
1993	7121.8	895.0	88.1	81.5	88.1	81.4	90.8	80.8	7721	88.1
1994	6545.3	890.0	79.3	81.2	79.2	81.2	84.0	81.2	7128	81.4
1995	6015.5	895.0	73.7	80.5	73.7	80.4	76.7	80.7	6863	78.3
1996	7939.7	895.0	95.4	81.9	95.4	81.8	101.0	82.6	8431	96.0
1997	6051.9	895.0	73.8	81.2	73.8	81.1	77.2	82.1	6503	74.2
1998	6902.5	895.0	82.9	81.3	82.8	81.3	88.0	82.6	7325	83.6
1999	7231.8	895.0	86.3	81.7	86.3	81.6	92.2	83.3	7615	86.9
2000	8094.3	895.0	95.6	82.6	95.6	82.6	103.0	84.6	8399	95.6
2001	7570.3	895.0	89.4	83.0	89.4	83.0	96.6	85.3	7881	90.0
2002	7684.8	895.0	90.9	83.5	90.9	83.5	98.0	86.1	8062	92.0
2003	8387.4	895.0	100.0	84.4	99.1	84.3	107.0	87.2	8689	99.2
2004	7312.5	895.0	86.5	84.5	86.5	84.4	93.0	87.5	7630	86.9
2005	7562.2	895.0	89.4	84.8	89.4	84.7	96.5	88.0	7885	90.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					103	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	875			1058		
D. Inspection, maintenance or repair without refuelling				17		
J. Grid failure or grid unavailability						5
Subtotal	875	0	0	1075	111	5
Total	875			1191		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		19
15. Reactor Cooling Systems		2
31. Turbine and auxiliaries		18
32. Feedwater and Main Steam System		10
35. All other I&C Systems		8
41. Main Generator Systems		43
42. Electrical Power Supply Systems		0
Total	0	100

KR-6 KORI-4

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 895.0 MW(e)
Design Net Capacity: 890.0 MW(e)
Design Discharge Burnup: 18210 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8397.2 GW(e).h
Energy Availability Factor: 99.2%
Load Factor: 107.1%
Operating Factor: 99.3%
Energy Unavailability Factor: 0.8%
Total Off-line Time: 65 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	721.1	582.2	720.5	697.5	721.0	696.0	717.2	714.8	691.6	718.1	697.1	720.2	8397.2
EAF (%)	100.0	89.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.2
UCF (%)	100.0	89.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.2
LF (%)	108.3	96.8	108.2	108.4	108.3	108.0	107.7	107.3	107.3	107.7	108.2	108.2	107.1
OF (%)	100.0	90.3	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	99.3
EUF (%)	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Apr 1980
Date of First Criticality: 26 Oct 1985
Date of Grid Connection: 15 Nov 1985
Date of Commercial Operation: 29 Apr 1986

Lifetime Generation: 140822.0 GW(e).h
Cumulative Energy Availability Factor: 86.5%
Cumulative Load Factor: 90.3%
Cumulative Unit Capability Factor: 86.7%
Cumulative Energy Unavailability Factor: 13.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986			Data not provided							
1987	5860.8	895.0	78.3	78.3	78.0	78.0	74.8	74.8	6707	76.6
1988	5909.1	895.0	80.7	79.5	79.8	78.9	75.2	75.0	7006	79.8
1989	6177.4	895.0	77.2	78.7	77.2	78.3	78.8	76.2	6763	77.2
1990	6230.0	895.0	81.5	79.4	81.5	79.1	79.5	77.0	7140	81.5
1991	6353.0	895.0	80.4	79.6	80.0	79.3	81.0	77.8	7011	80.0
1992	6652.3	895.0	82.7	80.1	82.7	79.9	84.6	79.0	7266	82.7
1993	6835.9	895.0	85.1	80.9	85.1	80.6	87.2	80.1	7456	85.1
1994	7455.1	890.0	90.0	82.0	90.0	81.8	95.6	82.1	8160	93.2
1995	6950.6	890.0	89.3	82.8	89.3	82.6	89.2	82.9	7824	89.3
1996	6678.4	895.0	80.0	82.5	80.0	82.4	84.9	83.1	7147	81.4
1997	7014.2	895.0	84.4	82.7	84.4	82.5	89.5	83.6	7450	85.0
1998	8433.7	895.0	100.0	84.1	100.0	84.0	107.6	85.6	8760	100.0
1999	7129.0	895.0	84.6	84.2	84.6	84.0	90.9	86.0	7451	85.1
2000	7334.4	895.0	86.2	84.3	86.2	84.2	93.3	86.6	7578	86.3
2001	7615.1	895.0	90.0	84.7	90.0	84.6	97.1	87.3	7929	90.5
2002	8495.5	895.0	100.0	85.6	100.0	85.5	108.4	88.6	8760	100.0
2003	7597.0	895.0	90.5	85.9	89.6	85.8	96.9	89.1	7913	90.3
2004	7378.6	895.0	86.8	86.0	86.8	85.8	93.9	89.3	7669	87.3
2005	8397.2	895.0	99.2	86.7	99.2	86.5	107.1	90.3	8695	99.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		65			35	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1022					
D. Inspection, maintenance or repair without refuelling	29					
E. Testing of plant systems or components					0	
J. Grid failure or grid unavailability						4
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						5
Subtotal	0	65	0	1051	36	9
Total		65			1096	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
15. Reactor Cooling Systems		4
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		11
32. Feedwater and Main Steam System		8
41. Main Generator Systems		0
42. Electrical Power Supply Systems	65	8
Total	65	31

KR-9 ULCHIN-1**Operator:** KHNP (Korea Hydro and Nuclear Power Co.)**Contractor:** FRAM (FRAMATOME)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 920.0 MW(e)

Design Net Capacity: 890.0 MW(e)

Design Discharge Burnup: 42500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8245.0 GW(e).h

Energy Availability Factor: 99.8%

Load Factor: 102.3%

Operating Factor: 100.0%

Energy Unavailability Factor: 0.2%

Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	703.1	627.6	703.2	681.3	703.5	680.5	700.6	697.5	670.2	700.9	677.6	698.9	8245.0
EAF (%)	100.0	99.0	99.9	100.0	100.0	100.0	100.0	99.7	98.9	100.0	100.0	100.0	99.8
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	98.9	100.0	100.0	100.0	99.9
LF (%)	102.7	101.5	102.7	103.0	102.8	102.7	102.4	101.9	101.2	102.3	102.3	102.1	102.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.3	1.1	0.0	0.0	0.0	0.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	0.0	0.0	0.0	0.1
XUF (%)	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 26 Jan 1983 **Lifetime Generation:** 120420.0 GW(e).h

Date of First Criticality: 25 Feb 1988 **Cumulative Energy Availability Factor:** 85.2%

Date of Grid Connection: 07 Apr 1988 **Cumulative Load Factor:** 85.6%

Date of Commercial Operation: 10 Sep 1988 **Cumulative Unit Capability Factor:** 85.5%

Cumulative Energy Unavailability Factor: 14.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988			Data not provided							
1989	5205.4	920.0	66.4	66.4	66.4	66.4	64.6	64.6	5821	66.4
1990	6166.2	920.0	81.7	74.1	81.7	74.1	76.5	70.6	7156	81.7
1991	7244.3	920.0	91.0	79.7	91.0	79.7	89.9	77.0	7970	91.0
1992	7020.8	920.0	87.4	81.6	87.4	81.6	86.9	79.5	7675	87.4
1993	6977.6	920.0	87.3	82.8	87.3	82.8	86.6	80.9	7651	87.3
1994	6878.5	890.0	82.0	82.6	82.0	82.6	88.2	82.1	7293	83.3
1995	7153.8	920.0	85.7	83.1	85.7	83.1	88.8	83.0	7698	87.9
1996	7113.7	920.0	85.6	83.4	85.4	83.4	88.0	83.7	7631	86.9
1997	6801.0	920.0	83.7	83.4	82.3	83.3	84.4	83.7	7323	83.6
1998	7643.0	920.0	94.1	84.5	91.4	84.1	94.8	84.9	8256	94.2
1999	7161.6	920.0	86.1	84.7	86.1	84.3	88.9	85.2	7639	87.2
2000	7230.8	920.0	86.8	84.8	86.3	84.4	89.5	85.6	7736	88.1
2001	7022.3	920.0	85.1	84.9	84.5	84.4	87.1	85.7	7483	85.4
2002	5462.4	920.0	76.0	84.2	76.0	83.8	67.8	84.4	6052	69.1
2003	6371.6	920.0	85.2	84.3	85.2	83.9	79.1	84.1	7446	85.0
2004	7420.1	920.0	89.5	84.6	89.3	84.3	91.8	84.5	7970	90.7
2005	8245.0	920.0	99.9	85.5	99.8	85.2	102.3	85.6	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				150	190	
B. Refuelling without a maintenance					12	
C. Inspection, maintenance or repair combined with refuelling				913		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						6
Subtotal	0	0	0	1063	202	6
Total	0			1271		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems		3
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		4
41. Main Generator Systems		260
42. Electrical Power Supply Systems		9
Total	0	280

KR-10 ULCHIN-2**Operator:** KHNP (Korea Hydro and Nuclear Power Co.)**Contractor:** FRAM (FRAMATOME)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 920.0 MW(e)

Design Net Capacity: 890.0 MW(e)

Design Discharge Burnup: 42500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6582.4 GW(e).h

Energy Availability Factor: 80.7%

Load Factor: 81.7%

Operating Factor: 82.4%

Energy Unavailability Factor: 19.3%

Total Off-line Time: 1542 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	557.6	627.3	695.3	675.3	697.7	452.3	556.8	690.0	667.5	551.4	0.0	411.2	6582.4
EAF (%)	80.9	99.0	99.8	100.0	100.0	66.7	80.7	100.0	100.0	79.7	1.9	59.4	80.7
UCF (%)	80.9	100.0	100.0	100.0	100.0	66.7	80.7	100.0	100.0	79.7	1.9	59.4	80.8
LF (%)	81.5	101.5	101.6	102.1	101.9	68.3	81.3	100.8	100.8	80.4	0.0	60.1	81.7
OF (%)	84.1	100.0	100.0	100.1	100.0	69.6	83.3	100.0	100.0	82.3	0.0	69.1	82.4
EUF (%)	19.1	1.0	0.2	0.0	0.0	33.3	19.3	0.0	0.0	20.3	98.1	40.6	19.3
PUF (%)	19.1	0.0	0.0	0.0	0.0	33.3	19.3	0.0	0.0	20.3	98.1	40.6	19.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 05 Jul 1983 **Lifetime Generation:** 115117.0 GW(e).h

Date of First Criticality: 25 Feb 1989 **Cumulative Energy Availability Factor:** 85.9%

Date of Grid Connection: 14 Apr 1989 **Cumulative Load Factor:** 87.6%

Date of Commercial Operation: 30 Sep 1989 **Cumulative Unit Capability Factor:** 86.1%

Cumulative Energy Unavailability Factor: 14.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989			Data not provided							
1990	5547.3	920.0	73.0	73.0	73.0	73.0	68.8	68.8	6395	73.0
1991	6671.2	920.0	86.8	79.9	86.8	79.9	82.8	75.8	7603	86.8
1992	7076.9	920.0	87.5	82.4	87.5	82.4	87.6	79.7	7686	87.5
1993	7230.2	920.0	87.8	83.8	87.8	83.8	89.7	82.2	7693	87.8
1994	6889.7	890.0	81.5	83.3	81.5	83.3	88.4	83.4	7315	83.5
1995	7810.3	920.0	93.4	85.0	93.4	85.0	96.9	85.7	8223	93.9
1996	7696.4	920.0	91.3	85.9	91.0	85.9	95.2	87.1	8151	92.8
1997	7055.2	920.0	86.0	85.9	84.3	85.7	87.5	87.1	7534	86.0
1998	7388.9	920.0	88.5	86.2	88.3	86.0	91.7	87.6	7947	90.7
1999	7815.2	920.0	94.6	87.1	94.5	86.8	97.0	88.6	8748	99.9
2000	6836.8	920.0	82.5	86.6	82.3	86.4	84.6	88.2	7330	83.4
2001	7268.6	920.0	90.2	86.9	89.2	86.7	90.2	88.4	7848	89.6
2002	6485.8	920.0	78.3	86.3	78.3	86.0	80.5	87.8	6939	79.2
2003	7253.8	920.0	87.1	86.3	87.1	86.1	90.0	87.9	7686	87.7
2004	7253.7	920.0	88.6	86.5	88.6	86.3	89.8	88.0	7888	89.8
2005	6582.4	920.0	80.8	86.1	80.7	85.9	81.7	87.6	7218	82.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					140	
C. Inspection, maintenance or repair combined with refuelling	1223			935		
D. Inspection, maintenance or repair without refuelling	462			35		
E. Testing of plant systems or components					2	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						9
Subtotal	1685	0	0	970	142	9
Total	1685			1121		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		71
32. Feedwater and Main Steam System		0
41. Main Generator Systems		64
42. Electrical Power Supply Systems		2
Total	0	137

KR-13 ULCHIN-3**Operator:** KHNP (Korea Hydro and Nuclear Power Co.)**Contractor:** DHICKOPC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA POWER ENGINEERING COMPAN**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 960.0 MW(e)

Design Net Capacity: 960.0 MW(e)

Design Discharge Burnup: 32571 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7651.7 GW(e).h

Energy Availability Factor: 87.6%

Load Factor: 91.0%

Operating Factor: 89.4%

Energy Unavailability Factor: 12.4%

Total Off-line Time: 926 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	740.0	655.2	741.0	717.1	741.5	623.7	740.1	739.4	106.8	526.2	677.3	643.4	7651.7
EAF (%)	100.0	98.0	100.0	100.0	100.0	87.0	100.0	100.0	13.6	71.1	94.0	86.6	87.6
UCF (%)	100.0	100.0	100.0	100.0	100.0	87.0	100.0	100.0	13.6	71.1	94.0	86.6	87.7
LF (%)	103.6	101.6	103.7	103.9	103.8	90.2	103.6	103.5	15.4	73.6	98.0	90.1	91.0
OF (%)	100.0	100.0	100.0	100.1	100.0	93.3	100.0	100.0	17.8	76.2	96.3	88.8	89.4
EUF (%)	0.0	2.0	0.0	0.0	0.0	13.0	0.0	0.0	86.4	28.9	6.0	13.4	12.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86.4	28.9	0.0	0.0	9.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	6.0	13.4	2.7
XUF (%)	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 21 Jul 1993 **Lifetime Generation:** 59065.0 GW(e).h

Date of First Criticality: 21 Dec 1997 **Cumulative Energy Availability Factor:** 89.8%

Date of Grid Connection: 06 Jan 1998 **Cumulative Load Factor:** 89.2%

Date of Commercial Operation: 11 Aug 1998 **Cumulative Unit Capability Factor:** 90.0%

Cumulative Energy Unavailability Factor: 10.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1998	3495.9	960.0	100.0	100.0	100.0	100.0	99.2	99.2	3589	97.7
1999	6918.0	960.0	81.4	86.9	79.7	85.7	82.3	87.3	7149	81.6
2000	7489.1	960.0	87.0	87.0	87.0	86.2	88.8	87.9	7734	88.0
2001	7922.2	960.0	91.3	88.2	91.3	87.7	94.2	89.7	8025	91.6
2002	7031.3	960.0	89.0	88.4	89.0	88.0	83.6	88.4	7824	89.3
2003	7984.3	960.0	99.6	90.4	99.6	90.1	94.9	89.6	8758	100.0
2004	7187.6	960.0	90.0	90.4	90.0	90.1	85.2	88.9	7986	90.9
2005	7651.7	960.0	87.7	90.0	87.6	89.8	91.0	89.2	7834	89.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1999 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	771	188		723	9	
Subtotal	771	188	0	723	9	0
Total	959			732		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1999 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	188	4
32. Feedwater and Main Steam System		4
Total	188	8

KR-14 ULCHIN-4**Operator:** KHNP (Korea Hydro and Nuclear Power Co.)**Contractor:** DHICKOPC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA POWER ENGINEERING COMPANY)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 960.0 MW(e)

Design Net Capacity: 960.0 MW(e)

Design Discharge Burnup: 28349 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8003.0 GW(e).h

Energy Availability Factor: 91.3%

Load Factor: 95.2%

Operating Factor: 92.3%

Energy Unavailability Factor: 8.7%

Total Off-line Time: 675 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	146.5	518.6	742.3	720.6	744.3	721.6	744.2	741.7	715.3	740.7	721.7	745.4	8003.0
EAF (%)	18.8	77.1	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.3
UCF (%)	18.8	79.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.5
LF (%)	20.5	80.4	103.9	104.4	104.2	104.4	104.2	103.8	103.5	103.6	104.4	104.4	95.2
OF (%)	22.6	85.3	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	92.3
EUF (%)	81.2	22.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
PUF (%)	81.2	20.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	2.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Nov 1993 **Lifetime Generation:** 53566.0 GW(e).h

Date of First Criticality: 14 Dec 1998 **Cumulative Energy Availability Factor:** 89.4%

Date of Grid Connection: 28 Dec 1998 **Cumulative Load Factor:** 92.3%

Date of Commercial Operation: 31 Dec 1999 **Cumulative Unit Capability Factor:** 89.5%

Cumulative Energy Unavailability Factor: 10.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1999			Data not provided							
2000	7042.5	960.0	81.3	81.3	81.3	81.3	83.5	83.5	7229	82.3
2001	7732.3	960.0	90.0	85.6	89.9	85.6	91.9	87.7	7880	90.0
2002	7311.3	960.0	84.0	85.1	83.8	85.0	86.9	87.5	7448	85.0
2003	7922.5	960.0	91.6	86.7	91.6	86.7	94.2	89.1	8081	92.2
2004	8623.1	960.0	98.7	89.1	98.7	89.1	102.3	91.8	8700	99.0
2005	8003.0	960.0	91.5	89.5	91.3	89.4	95.2	92.3	8085	92.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					35	
C. Inspection, maintenance or repair combined with refuelling	675			715		
L. Human factor related					1	
Subtotal	675	0	0	715	36	0
Total	675			751		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		15
41. Main Generator Systems		7
42. Electrical Power Supply Systems		12
Total	0	34

KR-19 ULCHIN-5

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: DHICKOPC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA POWER ENGINEERING COMPANY)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 960.0 MW(e)
Design Net Capacity: 960.0 MW(e)
Design Discharge Burnup: 38723 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7321.6 GW(e).h
Energy Availability Factor: 83.8%
Load Factor: 87.1%
Operating Factor: 84.6%
Energy Unavailability Factor: 16.2%
Total Off-line Time: 1351 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	614.9	670.5	661.6	722.9	746.3	436.5	0.0	540.5	718.4	744.3	720.9	744.8	7321.6
EAF (%)	82.8	100.0	89.0	100.0	100.0	60.7	0.6	74.7	100.0	100.0	100.0	100.0	83.8
UCF (%)	82.8	100.0	89.1	100.0	100.0	60.7	0.6	74.7	100.0	100.0	100.0	100.0	83.8
LF (%)	86.1	103.9	92.6	104.7	104.5	63.2	0.0	75.7	103.9	104.1	104.3	104.3	87.1
OF (%)	84.8	100.0	90.6	100.1	100.0	63.3	0.0	78.5	100.0	99.9	100.0	100.0	84.6
EUF (%)	17.2	0.0	11.0	0.0	0.0	39.3	99.4	25.3	0.0	0.0	0.0	0.0	16.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	39.3	99.4	25.3	0.0	0.0	0.0	0.0	13.8
UCLF (%)	17.2	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1999
Date of First Criticality: 28 Nov 2003
Date of Grid Connection: 18 Dec 2003
Date of Commercial Operation: 29 Jul 2004

Lifetime Generation: 11989.0 GW(e).h
Cumulative Energy Availability Factor: 88.6%
Cumulative Load Factor: 86.7%
Cumulative Unit Capability Factor: 88.6%
Cumulative Energy Unavailability Factor: 11.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2004	3648.4	960.0	98.2	98.2	98.2	98.2	86.0	86.0	3669	83.1
2005	7321.6	960.0	83.8	88.6	83.8	88.6	87.1	86.7	7409	84.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2004 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		183			37	
C. Inspection, maintenance or repair combined with refuelling	1168					
Subtotal	1168	183	0	0	37	0
Total		1351			37	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2004 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	70	
12. Reactor I&C Systems	113	37
Total	183	37

KR-20 ULCHIN-6

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: DHICKOPC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA POWER ENGINEERING COMPANY)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 960.0 MW(e)
Design Net Capacity: 960.0 MW(e)
Design Discharge Burnup: 38829 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5048.0 GW(e).h
Energy Availability Factor: 98.7%
Load Factor: 102.4%
Operating Factor: 98.9%
Energy Unavailability Factor: 1.3%
Total Off-line Time: 55 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h						686.2	702.3	740.3	717.5	741.3	718.7	741.8	5048.0
EAF (%)						94.9	95.7	100.0	100.0	100.0	100.0	100.0	98.7
UCF (%)						94.9	95.7	100.0	100.0	100.0	100.0	100.0	98.7
LF (%)						99.3	98.3	103.6	103.8	103.8	104.0	103.9	102.4
OF (%)						95.6	96.9	100.0	100.0	100.0	100.0	100.0	98.9
EUF (%)						5.1	4.3	0.0	0.0	0.0	0.0	0.0	1.3
PUF (%)						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)						5.1	4.3	0.0	0.0	0.0	0.0	0.0	1.3
XUF (%)						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

COMMERCIAL OPERATION DATE : 2005-04-22

5. Historical Summary

Date of Construction Start: 29 Sep 2000
Date of First Criticality: 16 Dec 2004
Date of Grid Connection: 07 Jan 2005
Date of Commercial Operation: 01 Jun 2005

Lifetime Generation: 7086.0 GW(e).h
Cumulative Energy Availability Factor: 98.7%
Cumulative Load Factor: 102.4%
Cumulative Unit Capability Factor: 98.7%
Cumulative Energy Unavailability Factor: 1.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2005	5048.0	960.0	98.7	98.7	98.7	98.7	102.4	102.4	5081	98.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2005 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External

The reactor has not yet completed a full year of commercial operation.

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2005 to 2005 Average Hours Lost Per Year

The reactor has not yet completed a full year of commercial operation.

KR-3 WOLSONG-1

Operator: KHNP (Korea Hydro and Nuclear Power Co.)
Contractor: AECL (ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power
at the beginning of 2005: 629.0 MW(e)
Design Net Capacity: 629.0 MW(e)
Design Discharge Burnup: 75000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4296.3 GW(e).h
Energy Availability Factor: 75.9%
Load Factor: 78.0%
Operating Factor: 82.9%
Energy Unavailability Factor: 24.1%
Total Off-line Time: 1499 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	464.5	210.1	437.7	426.1	443.0	429.4	443.0	439.0	0.0	137.1	426.2	440.2	4296.3
EAF (%)	95.7	49.9	90.8	91.3	91.7	91.8	91.9	91.3	0.0	29.7	91.5	91.6	75.9
UCF (%)	100.0	54.8	100.0	100.0	100.0	100.0	100.0	99.7	0.0	32.1	100.0	100.0	82.5
LF (%)	99.3	49.7	93.5	94.2	94.7	94.8	94.7	93.8	0.0	29.3	94.1	94.1	78.0
OF (%)	100.0	56.8	100.0	100.1	100.0	100.0	100.0	100.0	0.0	34.2	100.0	100.0	82.9
EUf (%)	4.3	50.1	9.2	8.7	8.3	8.2	8.1	8.7	100.0	70.3	8.5	8.4	24.1
PUf (%)	0.0	45.2	0.0	0.0	0.0	0.0	0.0	0.3	100.0	68.0	0.0	0.0	17.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	4.3	4.9	9.2	8.7	8.3	8.2	8.1	8.3	0.0	2.4	8.5	8.4	6.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 30 Oct 1977
Date of First Criticality: 21 Nov 1982
Date of Grid Connection: 31 Dec 1982
Date of Commercial Operation: 22 Apr 1983

Lifetime Generation: 108471.0 GW(e).h
Cumulative Energy Availability Factor: 83.3%
Cumulative Load Factor: 86.2%
Cumulative Unit Capability Factor: 86.1%
Cumulative Energy Unavailability Factor: 16.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	2507.4	628.0	100.0	100.0	60.4	60.4	60.5	60.5	5095	77.2
1984	3693.2	629.0	66.8	81.0	66.8	64.1	66.8	64.1	6202	70.6
1985	5246.5	629.0	95.7	86.4	94.0	74.9	95.2	75.4	8277	94.5
1986	4420.4	629.0	80.9	84.9	80.8	76.5	80.2	76.7	7079	80.8
1987	5155.8	629.0	94.4	86.9	93.9	80.2	93.6	80.2	8185	93.4
1988	4415.3	629.0	80.1	85.7	80.1	80.1	79.9	80.2	7033	80.1
1989	5053.2	629.0	91.7	86.6	68.8	78.5	91.7	81.9	8036	91.7
1990	4770.3	629.0	86.0	86.5	86.0	79.4	86.6	82.5	7532	86.0
1991	5062.0	629.0	90.5	87.0	90.5	80.7	91.9	83.6	7927	90.5
1992	4843.3	629.0	85.5	86.8	85.5	81.2	87.7	84.0	7510	85.5
1993	5611.3	629.0	99.0	88.0	99.0	82.8	101.8	85.6	8671	99.0
1994	4583.1	629.0	80.5	87.3	80.4	82.6	83.2	85.4	7150	81.6
1995	4647.1	629.0	80.9	86.8	80.9	82.5	84.3	85.3	7266	82.9
1996	4508.2	629.0	78.5	86.2	78.0	82.2	81.6	85.1	7029	80.0
1997	5689.6	629.0	99.6	87.1	99.6	83.3	103.3	86.3	8732	99.7
1998	4360.4	629.0	76.5	86.5	76.5	82.9	79.1	85.9	6730	76.8
1999	4613.0	629.0	80.7	86.1	80.7	82.8	83.7	85.7	7087	80.9
2000	4511.6	629.0	79.0	85.7	79.0	82.6	81.7	85.5	6993	79.6
2001	4622.0	629.0	81.3	85.5	81.3	82.5	83.9	85.4	7153	81.7
2002	5516.2	629.0	97.2	86.1	97.1	83.2	100.1	86.2	8543	97.5
2003	4980.0	629.0	88.1	86.2	88.1	83.5	90.4	86.4	7715	88.1
2004	5027.5	629.0	89.4	86.3	88.2	83.7	91.0	86.6	7855	89.4
2005	4296.3	629.0	82.5	86.1	75.9	83.3	78.0	86.2	7261	82.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					96	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling				694		
D. Inspection, maintenance or repair without refuelling	1499			330		
E. Testing of plant systems or components				4		
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						6
L. Human factor related					3	
Subtotal	1499	0	0	1028	103	9
Total		1499			1140	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		43
13. Reactor Auxiliary Systems		5
14. Safety Systems		4
15. Reactor Cooling Systems		13
16. Steam generation systems		1
31. Turbine and auxiliaries		8
32. Feedwater and Main Steam System		10
41. Main Generator Systems		1
42. Electrical Power Supply Systems		3
Total	0	88

KR-4 WOLSONG-2

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: AECL/DHI (ATOMIC ENERGY OF CANADA LTD./DOOSAN HEAVY INDUSTRY & CONSTRUCTION)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 650.0 MW(e)
Design Net Capacity: 650.0 MW(e)
Design Discharge Burnup: 75000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5641.3 GW(e).h
Energy Availability Factor: 93.9%
Load Factor: 99.1%
Operating Factor: 94.1%
Energy Unavailability Factor: 6.1%
Total Off-line Time: 517 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	512.5	462.8	512.8	496.8	513.3	495.9	509.4	506.8	485.7	506.7	414.9	223.6	5641.3
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.9	43.9	93.9
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	84.0	43.9	93.9
LF (%)	106.0	105.9	106.0	106.3	106.1	106.0	105.3	104.8	103.8	104.6	88.7	46.2	99.1
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	84.6	45.4	94.1
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	56.1	6.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	56.1	6.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 25 Sep 1992
Date of First Criticality: 29 Jan 1997
Date of Grid Connection: 01 Apr 1997
Date of Commercial Operation: 01 Jul 1997

Lifetime Generation: 46071.0 GW(e).h
Cumulative Energy Availability Factor: 89.9%
Cumulative Load Factor: 94.1%
Cumulative Unit Capability Factor: 90.0%
Cumulative Energy Unavailability Factor: 10.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1997	2804.3	650.0	94.7	94.7	94.7	94.7	97.7	97.7	4199	95.1
1998	4788.7	650.0	81.0	85.6	81.0	85.6	84.1	88.7	7144	81.6
1999	5211.8	650.0	88.1	86.6	88.1	86.6	91.5	89.8	7754	88.5
2000	5346.8	650.0	91.5	88.0	91.5	88.0	93.6	90.9	7843	89.3
2001	5585.4	650.0	93.0	89.1	92.8	89.1	98.1	92.5	8188	93.5
2002	5266.0	650.0	87.7	88.8	87.7	88.8	92.5	92.5	7717	88.1
2003	5480.6	650.0	91.2	89.2	91.2	89.2	96.3	93.1	8015	91.5
2004	5465.5	650.0	90.9	89.4	90.9	89.4	95.7	93.4	8015	91.2
2005	5641.3	650.0	93.9	90.0	93.9	89.9	99.1	94.1	8243	94.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1997 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					27	
C. Inspection, maintenance or repair combined with refuelling				382		
D. Inspection, maintenance or repair without refuelling	517			348		
J. Grid failure or grid unavailability						8
Subtotal	517	0	0	730	27	8
Total	517			765		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1997 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		7
31. Turbine and auxiliaries		5
32. Feedwater and Main Steam System		10
41. Main Generator Systems		3
42. Electrical Power Supply Systems		1
Total	0	26

KR-15 WOLSONG-3**Operator:** KHNP (Korea Hydro and Nuclear Power Co.)**Contractor:** AECL/DHI (ATOMIC ENERGY OF CANADA LTD./DOOSAN HEAVY INDUSTRY & CONSTRUCTION)**1. Station Details**

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 650.0 MW(e)
Design Net Capacity: 650.0 MW(e)
Design Discharge Burnup: 7296 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5997.9 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 105.3%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	511.7	462.4	512.1	495.3	511.8	494.5	508.8	505.9	485.2	505.8	493.6	510.8	5997.9
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	105.8	105.9	105.9	106.0	105.8	105.7	105.2	104.6	103.7	104.4	105.5	105.6	105.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 17 Mar 1994 **Lifetime Generation:** 41598.0 GW(e).h
Date of First Criticality: 19 Feb 1998 **Cumulative Energy Availability Factor:** 92.1%
Date of Grid Connection: 25 Mar 1998 **Cumulative Load Factor:** 94.8%
Date of Commercial Operation: 01 Jul 1998 **Cumulative Unit Capability Factor:** 92.1%
Cumulative Energy Unavailability Factor: 7.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1998	2839.3	650.0	96.1	96.1	96.1	96.1	98.9	98.9	4257	96.4
1999	4696.7	650.0	80.2	85.6	80.2	85.6	82.5	88.0	7008	80.0
2000	5925.2	650.0	99.9	91.3	99.9	91.3	103.8	94.3	8784	100.0
2001	4923.9	650.0	85.3	89.6	85.3	89.6	86.5	92.1	7409	84.6
2002	5043.3	650.0	91.8	90.1	91.8	90.1	88.6	91.3	8083	92.3
2003	5579.5	650.0	93.1	90.6	93.1	90.6	98.0	92.5	8176	93.3
2004	5540.3	650.0	92.5	90.9	92.2	90.9	97.0	93.2	8152	92.8
2005	5997.9	650.0	100.0	92.1	100.0	92.1	105.3	94.8	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1999 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					34	
C. Inspection, maintenance or repair combined with refuelling				398		
D. Inspection, maintenance or repair without refuelling				268		
J. Grid failure or grid unavailability						2
Subtotal	0	0	0	666	34	2
Total	0			702		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1999 to 2005 Average Hours Lost Per Year
16. Steam generation systems		0
35. All other I&C Systems		34
Total	0	34

KR-16 WOLSONG-4

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: AECL/DHI (ATOMIC ENERGY OF CANADA LTD./DOOSAN HEAVY INDUSTRY & CONSTRUCTION)

1. Station Details

Type: PHWR
 Net Reference Unit Power
 at the beginning of 2005: 650.0 MW(e)
 Design Net Capacity: 650.0 MW(e)
 Design Discharge Burnup: 7296 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5657.9 GW(e).h
 Energy Availability Factor: 93.8%
 Load Factor: 99.4%
 Operating Factor: 94.2%
 Energy Unavailability Factor: 6.2%
 Total Off-line Time: 506 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	513.3	463.7	512.9	496.7	513.0	495.7	510.2	507.3	486.1	224.0	421.4	513.6	5657.9
EAF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	42.2	84.5	100.0	93.8
UCF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	42.2	84.5	100.0	93.8
LF (%)	106.1	106.2	106.1	106.3	106.1	105.9	105.5	104.9	103.9	46.3	90.0	106.2	99.4
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	45.1	86.4	100.0	94.2
EUF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	57.8	15.5	0.0	6.2
PUF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	57.8	15.5	0.0	6.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 22 Jul 1994
 Date of First Criticality: 10 Apr 1999
 Date of Grid Connection: 21 May 1999
 Date of Commercial Operation: 01 Oct 1999

Lifetime Generation: 36149.0 GW(e).h
 Cumulative Energy Availability Factor: 92.8%
 Cumulative Load Factor: 97.5%
 Cumulative Unit Capability Factor: 92.8%
 Cumulative Energy Unavailability Factor: 7.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1999	1489.2	650.0	99.9	99.9	99.9	99.9	103.8	103.8	2208	100.0
2000	5423.3	650.0	91.4	93.1	91.4	93.1	95.0	96.7	8033	91.5
2001	5493.2	650.0	92.6	92.9	92.6	92.9	96.5	96.6	8110	92.6
2002	5448.1	650.0	90.8	92.2	90.8	92.2	95.7	96.3	7971	91.0
2003	5601.9	650.0	93.5	92.5	93.5	92.5	98.4	96.8	8225	93.9
2004	5620.9	650.0	93.2	92.6	93.2	92.6	98.4	97.1	8209	93.5
2005	5657.9	650.0	93.8	92.8	93.8	92.8	99.4	97.5	8254	94.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					0	
C. Inspection, maintenance or repair combined with refuelling				232		
D. Inspection, maintenance or repair without refuelling	506			309		
Subtotal	506	0	0	541	0	0
Total	506			541		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
31. Turbine and auxiliaries		0
Total	0	0

KR-7 YONGGWANG-1

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 900.0 MW(e)
Design Net Capacity: 890.0 MW(e)
Design Discharge Burnup: 18190 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8302.9 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 105.3%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	709.1	639.7	710.7	688.0	708.3	679.6	697.6	692.6	676.7	705.1	686.5	708.9	8302.9
EAF (%)	99.9	100.0	100.0	100.0	99.9	99.8	100.0	99.9	100.0	99.9	99.9	100.0	100.0
UCF (%)	99.9	100.0	100.0	100.0	99.9	100.0	100.0	99.9	100.0	100.0	99.9	100.0	100.0
LF (%)	105.9	105.8	106.1	106.3	105.8	104.9	104.2	103.4	104.4	105.2	105.9	105.9	105.3
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.1	0.1	0.0	0.0
PUF (%)	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 04 Jun 1981
Date of First Criticality: 31 Jan 1986
Date of Grid Connection: 05 Mar 1986
Date of Commercial Operation: 25 Aug 1986

Lifetime Generation: 138103.0 GW(e).h
Cumulative Energy Availability Factor: 87.1%
Cumulative Load Factor: 89.5%
Cumulative Unit Capability Factor: 87.1%
Cumulative Energy Unavailability Factor: 12.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	2467.9	900.0	95.8	95.8	95.6	95.6	74.7	74.7	2928	79.7
1987	5973.9	900.0	78.8	83.8	78.8	83.7	75.8	75.4	6870	78.4
1988	6199.6	900.0	77.9	81.4	77.9	81.3	78.4	76.7	6844	77.9
1989	6451.8	900.0	81.5	81.4	81.5	81.4	81.8	78.2	7136	81.5
1990	6897.5	900.0	85.7	82.4	85.7	82.3	87.5	80.3	7507	85.7
1991	6695.6	900.0	84.3	82.7	84.3	82.7	84.9	81.1	7383	84.3
1992	6947.3	900.0	86.5	83.3	86.5	83.3	87.9	82.2	7600	86.5
1993	6724.0	900.0	86.8	83.8	86.8	83.8	85.3	82.6	7603	86.8
1994	8230.1	890.0	99.4	85.6	99.4	85.6	105.6	85.3	8751	99.9
1995	6094.6	900.0	74.9	84.5	74.9	84.5	77.3	84.5	6781	77.4
1996	6755.5	900.0	81.4	84.2	81.3	84.2	85.5	84.6	7255	82.6
1997	8236.1	900.0	99.4	85.5	99.4	85.5	104.5	86.3	8741	99.8
1998	7104.5	900.0	85.5	85.5	85.5	85.5	90.1	86.6	7599	86.7
1999	6730.0	900.0	81.1	85.2	81.1	85.2	85.4	86.5	7242	82.7
2000	7215.1	900.0	87.5	85.3	87.5	85.3	91.3	86.8	7696	87.6
2001	8346.4	900.0	99.9	86.3	99.9	86.3	105.9	88.1	8760	100.0
2002	7419.0	900.0	88.8	86.4	88.8	86.4	94.1	88.4	7867	89.8
2003	7074.4	900.0	86.3	86.4	86.3	86.4	89.7	88.5	7593	86.7
2004	7207.2	900.0	86.7	86.5	86.7	86.4	91.2	88.7	7688	87.5
2005	8302.9	900.0	100.0	87.1	100.0	87.1	105.3	89.5	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					29	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling				1001		
D. Inspection, maintenance or repair without refuelling				8		
H. Nuclear regulatory requirements					8	
J. Grid failure or grid unavailability					0	
Subtotal	0	0	0	1009	37	0
Total	0			1046		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		9
15. Reactor Cooling Systems		2
16. Steam generation systems		0
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		4
41. Main Generator Systems		0
42. Electrical Power Supply Systems		2
XX. Miscellaneous Systems		0
Total	0	25

KR-8 YONGGWANG-2

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 900.0 MW(e)
 Design Net Capacity: 890.0 MW(e)
 Design Discharge Burnup: 17960 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7302.4 GW(e).h
 Energy Availability Factor: 88.6%
 Load Factor: 92.6%
 Operating Factor: 90.0%
 Energy Unavailability Factor: 11.4%
 Total Off-line Time: 879 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	704.3	636.3	705.2	682.0	703.7	674.4	692.9	688.8	670.4	693.0	135.6	316.0	7302.4
EAF (%)	99.9	100.0	100.0	99.9	99.9	100.0	100.0	100.0	99.9	100.0	16.7	47.0	88.6
UCF (%)	99.9	100.0	100.0	99.9	100.0	100.0	100.0	100.0	99.9	100.0	16.8	47.0	88.6
LF (%)	105.2	105.2	105.3	105.4	105.1	104.1	103.5	102.9	103.5	103.4	20.9	47.2	92.6
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	24.7	54.7	90.0
EUF (%)	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	83.3	53.0	11.4
PUF (%)	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	83.3	53.0	11.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Dec 1981 Lifetime Generation: 128604.0 GW(e).h
 Date of First Criticality: 15 Oct 1986 Cumulative Energy Availability Factor: 84.5%
 Date of Grid Connection: 11 Nov 1986 Cumulative Load Factor: 86.8%
 Date of Commercial Operation: 10 Jun 1987 Cumulative Unit Capability Factor: 84.5%
 Cumulative Energy Unavailability Factor: 15.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	4297.0	900.0	98.1	98.1	98.1	98.1	97.0	97.0	4826	98.1
1988	6280.9	900.0	80.6	86.9	80.6	86.9	79.4	85.8	7085	80.7
1989	5703.2	900.0	73.6	81.7	73.6	81.7	72.3	80.5	6446	73.6
1990	5964.5	900.0	77.1	80.4	77.1	80.4	75.7	79.2	6757	77.1
1991	6715.0	900.0	84.9	81.4	84.9	81.4	85.2	80.5	7433	84.9
1992	6434.6	900.0	82.6	81.6	82.6	81.6	81.4	80.6	7259	82.6
1993	6930.5	900.0	85.8	82.3	85.7	82.2	87.9	81.7	7506	85.7
1994	7132.9	890.0	85.5	82.7	85.5	82.7	91.5	83.0	7687	87.8
1995	6036.5	900.0	74.2	81.7	74.2	81.7	76.6	82.3	6696	76.4
1996	7656.1	900.0	91.6	82.7	91.6	82.7	96.8	83.8	8189	93.2
1997	6657.3	900.0	81.2	82.6	81.2	82.6	84.4	83.9	7453	85.1
1998	6010.4	900.0	74.5	81.9	74.4	81.9	76.2	83.2	6583	75.1
1999	6718.9	900.0	82.1	81.9	82.1	81.9	85.2	83.4	7301	83.3
2000	7144.1	900.0	87.1	82.3	87.1	82.3	90.4	83.9	7753	88.3
2001	7169.7	900.0	87.1	82.6	87.1	82.6	90.9	84.4	7726	88.2
2002	8194.2	900.0	99.9	83.7	99.6	83.7	103.9	85.6	8744	99.8
2003	7413.3	900.0	89.7	84.1	89.6	84.1	94.0	86.1	7931	90.5
2004	7242.9	900.0	87.5	84.3	87.5	84.3	91.6	86.4	7764	88.4
2005	7302.4	900.0	88.6	84.5	88.6	84.5	92.6	86.8	7881	90.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	26				48	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	865			1036		
D. Inspection, maintenance or repair without refuelling				109		
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						0
Subtotal	891	0	0	1145	53	1
Total	891			1199		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		1
15. Reactor Cooling Systems		2
16. Steam generation systems		7
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		5
35. All other I&C Systems		0
41. Main Generator Systems	26	19
42. Electrical Power Supply Systems		9
Total	26	44

KR-11 YONGGWANG-3

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: DHICKAEC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA ATOMICENERGY RESEARCH INS

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 1049.0 MW(e)
Design Discharge Burnup: 16920 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8675.6 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 104.2%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	741.7	668.9	738.5	717.6	739.0	711.3	732.4	729.8	708.2	734.6	714.0	739.3	8675.6
EAF (%)	100.0	100.0	99.8	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	104.9	104.8	104.5	105.1	104.6	104.0	103.6	103.3	103.5	103.8	104.4	104.6	104.2
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 23 Dec 1989
Date of First Criticality: 13 Oct 1994
Date of Grid Connection: 30 Oct 1994
Date of Commercial Operation: 31 Mar 1995

Lifetime Generation: 83910.0 GW(e).h
Cumulative Energy Availability Factor: 89.4%
Cumulative Load Factor: 91.4%
Cumulative Unit Capability Factor: 89.4%
Cumulative Energy Unavailability Factor: 10.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1995	6430.3	950.0	99.3	99.3	99.3	99.3	92.2	92.2	6573	89.5
1996	6366.2	950.0	74.0	85.5	74.0	85.5	76.3	83.5	6589	75.0
1997	7229.6	950.0	84.0	85.0	84.0	85.0	86.9	84.7	7443	85.0
1998	7400.8	950.0	85.5	85.1	85.5	85.1	88.9	85.8	7566	86.4
1999	7395.3	950.0	86.7	85.4	86.7	85.4	88.9	86.4	7678	87.6
2000	7262.0	950.0	85.6	85.5	85.6	85.5	87.0	86.5	7568	86.2
2001	8629.1	950.0	100.0	87.6	100.0	87.6	103.7	89.0	8760	100.0
2002	7658.2	950.0	89.1	87.8	89.1	87.8	92.0	89.4	7831	89.4
2003	7818.1	950.0	90.1	88.0	90.1	88.0	93.9	89.9	7971	91.0
2004	7654.7	950.0	90.4	88.3	90.3	88.3	91.7	90.1	7801	88.8
2005	8675.6	950.0	100.0	89.4	100.0	89.4	104.2	91.4	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1995 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					13	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling				869		
E. Testing of plant systems or components					0	
Subtotal	0	0	0	869	13	0
Total	0			882		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1995 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		0
35. All other I&C Systems		2
41. Main Generator Systems		0
42. Electrical Power Supply Systems		3
Total	0	11

KR-12 YONGGWANG-4

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: DHICKAEC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA ATOMICENERGY RESEARCH INS

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 1049.0 MW(e)
Design Discharge Burnup: 16820 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7755.0 GW(e).h
Energy Availability Factor: 89.8%
Load Factor: 93.2%
Operating Factor: 89.9%
Energy Unavailability Factor: 10.2%
Total Off-line Time: 881 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	736.3	665.4	737.9	714.5	735.4	707.0	727.8	549.8	0.0	730.6	713.3	737.0	7755.0
EAF (%)	100.0	100.0	100.0	100.0	100.0	99.9	100.0	76.7	0.6	99.4	100.0	100.0	89.8
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	76.8	0.6	99.4	100.0	100.0	89.8
LF (%)	104.2	104.2	104.4	104.6	104.0	103.4	103.0	77.8	0.0	103.2	104.3	104.3	93.2
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	78.4	0.0	99.9	100.0	100.0	89.9
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	23.3	99.4	0.6	0.0	0.0	10.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	99.4	0.6	0.0	0.0	10.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 26 May 1990
Date of First Criticality: 07 Jul 1995
Date of Grid Connection: 18 Jul 1995
Date of Commercial Operation: 01 Jan 1996

Lifetime Generation: 77796.0 GW(e).h
Cumulative Energy Availability Factor: 88.3%
Cumulative Load Factor: 91.4%
Cumulative Unit Capability Factor: 88.3%
Cumulative Energy Unavailability Factor: 11.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1996	7197.5	950.0	83.5	83.5	83.5	83.5	86.3	86.3	7565	86.1
1997	6767.7	950.0	78.8	81.1	78.8	81.1	81.3	83.8	7125	81.3
1998	8427.3	950.0	97.1	86.5	97.1	86.5	101.3	89.6	8591	98.1
1999	7627.9	950.0	89.0	87.1	89.0	87.1	91.7	90.1	7883	90.0
2000	7252.3	950.0	84.6	86.6	84.6	86.6	86.9	89.5	7441	84.7
2001	7237.2	950.0	84.8	86.3	84.8	86.3	87.0	89.1	7424	84.7
2002	7653.5	950.0	88.7	86.6	88.7	86.6	92.0	89.5	7808	89.1
2003	8576.8	950.0	98.7	88.1	98.7	88.1	103.1	91.2	8652	98.8
2004	7624.9	950.0	88.3	88.2	88.3	88.2	91.4	91.2	7782	88.6
2005	7755.0	950.0	89.8	88.3	89.8	88.3	93.2	91.4	7879	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1996 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					37	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	847			825		
Subtotal	847	0	0	825	38	0
Total	847			863		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1996 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		8
31. Turbine and auxiliaries		3
32. Feedwater and Main Steam System		3
41. Main Generator Systems		11
42. Electrical Power Supply Systems		10
Total	0	35

KR-17 YONGGWANG-5

Operator: KHNP (Korea Hydro and Nuclear Power Co.)

Contractor: DHICKOPC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA POWER ENGINEERING COMPANY)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 0.0 MW(e)
Design Discharge Burnup: 13820 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7748.4 GW(e).h
Energy Availability Factor: 88.8%
Load Factor: 93.1%
Operating Factor: 89.9%
Energy Unavailability Factor: 11.2%
Total Off-line Time: 887 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	740.5	667.4	739.4	702.1	442.5	66.1	738.2	735.8	710.0	741.8	720.9	743.7	7748.4
EAF (%)	100.0	100.0	100.0	98.3	59.9	7.7	100.0	100.0	99.3	99.9	100.0	100.0	88.8
UCF (%)	100.0	100.0	100.0	100.0	59.9	7.7	100.0	100.0	100.0	100.0	100.0	100.0	89.0
LF (%)	104.8	104.5	104.6	102.8	62.6	9.7	104.4	104.1	103.8	104.8	105.4	105.2	93.1
OF (%)	100.0	100.0	100.0	100.1	62.6	15.4	100.0	100.0	100.0	99.9	100.0	100.0	89.9
EUF (%)	0.0	0.0	0.0	1.7	40.1	92.3	0.0	0.0	0.7	0.1	0.0	0.0	11.2
PUF (%)	0.0	0.0	0.0	0.0	40.1	92.3	0.0	0.0	0.0	0.0	0.0	0.0	11.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 29 Jun 1997
Date of First Criticality: 24 Nov 2001
Date of Grid Connection: 19 Dec 2001
Date of Commercial Operation: 21 May 2002

Lifetime Generation: 26741.0 GW(e).h
Cumulative Energy Availability Factor: 80.1%
Cumulative Load Factor: 83.6%
Cumulative Unit Capability Factor: 80.1%
Cumulative Energy Unavailability Factor: 19.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002	5006.8	950.0	98.7	98.7	98.7	98.7	102.6	102.6	5095	99.2
2003	6694.4	950.0	77.1	85.1	77.1	85.1	80.4	88.6	6856	78.3
2004	5524.5	950.0	63.3	76.7	63.3	76.7	66.2	79.9	5611	63.9
2005	7748.4	950.0	89.0	80.1	88.8	80.1	93.1	83.6	7873	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2002 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					73	
C. Inspection, maintenance or repair combined with refuelling	887			1166		
D. Inspection, maintenance or repair without refuelling				39		
Subtotal	887	0	0	1205	73	0
Total	887			1278		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2002 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		15
16. Steam generation systems		47
Total	0	62

KR-18 YONGGWANG-6**Operator:** KHNP (Korea Hydro and Nuclear Power Co.)**Contractor:** DHICKOPC (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO.LTD./KOREA POWER ENGINEERING COMPAN**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)

Design Net Capacity: 960.0 MW(e)

Design Discharge Burnup: 13450 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7137.1 GW(e).h

Energy Availability Factor: 88.8%

Load Factor: 85.8%

Operating Factor: 90.3%

Energy Unavailability Factor: 11.2%

Total Off-line Time: 854 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	389.9	179.8	744.9	721.8	744.3	717.8	645.7	736.6	71.0	720.8	720.4	744.0	7137.1
EAF (%)	51.3	25.3	100.0	100.0	100.0	100.0	87.6	100.0	99.3	97.2	100.0	100.0	88.8
UCF (%)	51.3	25.3	100.0	100.0	100.0	100.0	88.2	100.0	100.0	100.0	100.0	100.0	89.1
LF (%)	55.2	28.2	105.4	105.7	105.3	104.9	91.3	104.2	10.4	101.8	105.3	105.3	85.8
OF (%)	56.2	32.9	100.0	100.1	100.0	100.0	90.1	100.0	100.0	99.5	100.0	100.0	90.3
EUf (%)	48.7	74.7	0.0	0.0	0.0	0.0	12.4	0.0	0.7	2.8	0.0	0.0	11.2
PUf (%)	48.7	74.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	1.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.7	2.8	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 20 Nov 1997 **Lifetime Generation:** 22775.0 GW(e).h

Date of First Criticality: 01 Sep 2002 **Cumulative Energy Availability Factor:** 83.2%

Date of Grid Connection: 16 Sep 2002 **Cumulative Load Factor:** 84.6%

Date of Commercial Operation: 24 Dec 2002 **Cumulative Unit Capability Factor:** 83.4%

Cumulative Energy Unavailability Factor: 16.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2002			Data not provided							
2003	7652.2	950.0	88.2	88.2	88.2	88.2	92.0	92.0	7728	88.2
2004	6354.5	950.0	72.8	80.5	72.8	80.5	76.1	84.0	6449	73.4
2005	7137.1	950.0	89.1	83.4	88.8	83.2	85.8	84.6	7906	90.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2003 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		72			12	
C. Inspection, maintenance or repair combined with refuelling	782			1110		
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant, spare part delivery problems etc.)			3			
Subtotal	782	72	3	1110	12	0
Total		857			1122	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2003 to 2005 Average Hours Lost Per Year
17. Safety I&C Systems (excluding reactor I&C)	72	
41. Main Generator Systems		12
Total	72	12

LT-47 IGNALINA-2

Operator: INPP (IGNALINA NUCLEAR POWER PLANT)

Contractor: MAEP (MINATOMENERGOPROM, MINISTRY OF NUCLEAR POWER AND INDUSTRY)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 1185.0 MW(e)
Design Net Capacity: 1500.0 MW(e)
Design Discharge Burnup: 21600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9544.1 GW(e).h
Energy Availability Factor: 89.3%
Load Factor: 91.9%
Operating Factor: 89.3%
Energy Unavailability Factor: 10.7%
Total Off-line Time: 934 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	893.2	837.1	923.3	898.8	917.3	889.7	902.1	784.5	64.9	600.4	895.6	937.1	9544.1
EAF (%)	100.0	100.0	100.0	100.0	99.4	100.0	100.0	88.0	7.8	75.7	100.0	100.0	89.3
UCF (%)	100.0	100.0	100.0	100.0	99.4	100.0	100.0	88.0	7.8	75.7	100.0	100.0	89.3
LF (%)	101.3	105.1	104.7	105.5	104.0	104.3	102.3	89.0	7.6	68.0	105.0	106.3	91.9
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	88.0	7.8	75.6	100.0	100.0	89.3
EUF (%)	0.0	0.0	0.0	0.0	0.6	0.0	0.0	12.0	92.2	24.3	0.0	0.0	10.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.2	24.3	0.0	0.0	9.6
UCLF (%)	0.0	0.0	0.0	0.0	0.6	0.0	0.0	12.0	0.0	0.0	0.0	0.0	1.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

MOST OF THE TIME CAPACITY OF UNIT 2 WAS 1220MWE INSTEAD OF 1185MWE (INSTALLED CAPACITY)

5. Historical Summary

Date of Construction Start: 01 Jan 1978 **Lifetime Generation:** 119008.0 GW(e).h
Date of First Criticality: 01 Dec 1986 **Cumulative Energy Availability Factor:** 62.2%
Date of Grid Connection: 20 Aug 1987 **Cumulative Load Factor:** 59.6%
Date of Commercial Operation: 20 Aug 1987 **Cumulative Unit Capability Factor:** 73.3%
Cumulative Energy Unavailability Factor: 37.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	2520.3	1500.0	100.0	100.0	100.0	100.0	52.2	52.2	2949	91.7
1988	7141.5	1380.0	69.7	78.3	69.7	78.3	58.9	57.0	6213	70.7
1989	7125.8	1380.0	71.2	75.4	58.0	69.9	58.9	57.8	6259	71.4
1990	8250.7	1380.0	68.3	73.3	68.3	69.4	68.3	60.9	7296	83.3
1991	8802.1	1380.0	73.2	73.3	73.0	70.2	72.8	63.6	7602	86.8
1992	6693.3	1380.0	71.3	72.9	71.3	70.4	55.4	62.1	5977	68.2
1993	5675.9	1185.0	49.0	69.6	38.2	66.0	54.7	61.1	5801	66.2
1994	3167.4	1185.0	76.2	70.4	30.5	61.7	30.5	57.4	4556	52.0
1995	5610.9	1185.0	75.8	71.0	54.1	60.9	54.1	57.0	6431	73.4
1996	6918.9	1185.0	75.8	71.5	66.5	61.4	66.5	57.9	6778	77.2
1997	6453.5	1185.0	77.9	72.0	77.7	62.9	62.2	58.3	6941	79.2
1998	8174.8	1185.0	89.7	73.5	78.6	64.2	78.8	60.0	7967	90.9
1999	4926.5	1185.0	73.8	73.5	47.5	62.9	47.5	59.0	6777	77.4
2000	3873.0	1185.0	77.6	73.8	37.2	61.1	37.2	57.5	4890	55.7
2001	4867.4	1185.0	68.8	73.5	46.9	60.2	46.9	56.8	4971	56.7
2002	7411.3	1185.0	78.4	73.8	70.9	60.8	71.4	57.7	6980	79.7
2003	7461.9	1185.0	74.6	73.8	71.5	61.5	71.9	58.5	7156	81.7
2004	4703.0	1185.0	48.0	72.4	48.0	60.7	45.2	57.8	4673	53.2
2005	9544.1	1185.0	89.3	73.3	89.3	62.2	91.9	59.6	7826	89.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		89			164	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				126		
D. Inspection, maintenance or repair without refuelling	845			1523		
E. Testing of plant systems or components				1		
J. Grid failure or grid unavailability						14
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					50	118
L. Human factor related						106
Subtotal	845	89	0	1650	217	238
Total		934			2105	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		9
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		11
14. Safety Systems		16
15. Reactor Cooling Systems		65
16. Steam generation systems		9
32. Feedwater and Main Steam System		6
41. Main Generator Systems		2
42. Electrical Power Supply Systems	89	5
XX. Miscellaneous Systems		2
Total	89	131

MX-1 LAGUNA VERDE-1

Operator: CFE (COMISION FEDERAL DE ELECTRICIDAD)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 680.0 MW(e)

Design Net Capacity: 654.0 MW(e)

Design Discharge Burnup: 35000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5007.8 GW(e).h

Energy Availability Factor: 88.2%

Load Factor: 84.1%

Operating Factor: 90.0%

Energy Unavailability Factor: 11.8%

Total Off-line Time: 876 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	477.8	369.9	489.6	467.9	473.0	466.2	470.1	384.3	108.3	351.2	463.3	486.2	5007.8
EAF (%)	97.8	84.2	99.9	99.6	98.3	99.8	98.5	83.2	24.4	73.8	98.7	99.0	88.2
UCF (%)	98.8	84.2	99.9	99.9	99.9	99.9	99.4	84.4	24.8	73.9	99.5	99.9	88.8
LF (%)	94.4	80.9	96.8	95.7	93.5	95.2	92.9	76.0	22.1	69.3	94.6	96.1	84.1
OF (%)	100.0	90.3	100.0	100.0	100.0	100.0	100.0	86.4	25.6	76.6	100.0	100.0	90.0
EUF (%)	2.2	15.8	0.1	0.4	1.7	0.2	1.5	16.8	75.6	26.2	1.3	1.0	11.8
PUF (%)	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	74.8	26.1	0.5	0.1	8.5
UCLF (%)	1.2	15.7	0.0	0.0	0.1	0.0	0.5	15.4	0.3	0.0	0.0	0.0	2.7
XUF (%)	1.0	0.0	0.0	0.3	1.6	0.0	0.9	1.2	0.4	0.1	0.8	0.9	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1976

Date of First Criticality: 08 Nov 1988

Date of Grid Connection: 13 Apr 1989

Date of Commercial Operation: 29 Jul 1990

Lifetime Generation: 67949.2 GW(e).h

Cumulative Energy Availability Factor: 80.2%

Cumulative Load Factor: 76.6%

Cumulative Unit Capability Factor: 81.0%

Cumulative Energy Unavailability Factor: 19.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	2227.9	640.0	79.7	79.7	79.7	79.7	78.8	78.8	3955	89.6
1991	4062.1	640.0	74.4	76.2	74.4	76.2	72.5	74.6	7022	80.2
1992	3746.4	654.0	70.4	73.9	70.4	73.9	65.2	70.8	7024	80.0
1993	4724.4	654.0	90.6	78.7	90.6	78.7	82.5	74.2	7851	89.6
1994	4062.0	628.0	77.8	78.5	73.8	77.6	73.8	74.1	7095	81.0
1995	4154.1	628.0	78.1	78.4	75.5	77.3	75.5	74.3	7128	81.4
1996	3442.3	655.0	68.8	76.9	68.8	75.9	59.8	72.1	6628	75.5
1997	5218.8	615.0	96.0	79.4	95.9	78.5	96.9	75.2	8577	97.9
1998	4412.5	655.0	82.2	79.7	81.7	78.9	76.9	75.4	7359	84.0
1999	4451.0	682.0	82.8	80.0	81.5	79.1	75.8	75.5	7466	85.2
2000	4577.6	645.0	80.6	80.1	80.3	79.3	80.8	76.0	7409	84.3
2001	4144.3	645.0	74.9	79.6	73.2	78.7	73.3	75.8	6808	77.7
2002	4196.3	680.0	76.4	79.4	75.8	78.5	70.4	75.3	6876	78.5
2003	5415.4	680.0	97.9	80.8	97.6	80.0	90.9	76.5	8642	98.7
2004	4168.9	680.0	75.9	80.5	75.2	79.6	69.8	76.0	6818	77.6
2005	5007.8	680.0	88.8	81.0	88.2	80.2	84.1	76.6	7884	90.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		166		90	381	
B. Refuelling without a maintenance	710				12	
C. Inspection, maintenance or repair combined with refuelling				743	32	
D. Inspection, maintenance or repair without refuelling				142		
E. Testing of plant systems or components				119	8	
J. Grid failure or grid unavailability					10	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					29	
Z. Others					32	
Subtotal	710	166	0	1094	504	0
Total		876			1598	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		8
12. Reactor I&C Systems	73	18
13. Reactor Auxiliary Systems		172
14. Safety Systems		9
15. Reactor Cooling Systems		39
17. Safety I&C Systems (excluding reactor I&C)		5
31. Turbine and auxiliaries	28	73
32. Feedwater and Main Steam System	65	86
35. All other I&C Systems		38
42. Electrical Power Supply Systems		18
Total	166	466

MX-2 LAGUNA VERDE-2

Operator: CFE (COMISION FEDERAL DE ELECTRICIDAD)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 680.0 MW(e)

Design Net Capacity: 654.0 MW(e)

Design Discharge Burnup: 35000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5310.3 GW(e).h

Energy Availability Factor: 96.5%

Load Factor: 89.1%

Operating Factor: 98.3%

Energy Unavailability Factor: 3.5%

Total Off-line Time: 149 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	461.6	428.1	450.8	448.6	457.3	440.9	457.3	376.8	442.7	463.1	443.6	439.6	5310.3
EAF (%)	97.4	99.3	95.6	98.8	98.3	97.7	99.0	82.9	98.6	99.7	98.0	93.1	96.5
UCF (%)	98.0	99.3	95.6	99.1	100.0	97.7	100.0	82.9	98.6	99.9	98.9	93.4	96.9
LF (%)	91.2	93.7	89.1	91.8	90.4	90.1	90.4	74.5	90.4	91.4	90.6	86.9	89.1
OF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.2	100.0	99.9	100.0	94.9	98.3
EUF (%)	2.6	0.7	4.4	1.2	1.7	2.3	1.0	17.1	1.4	0.3	2.0	6.9	3.5
PUF (%)	0.9	0.6	0.0	0.9	0.1	2.3	0.0	16.9	1.4	0.1	0.7	0.1	2.0
UCLF (%)	1.2	0.1	4.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	6.5	1.1
XUF (%)	0.5	0.0	0.0	0.4	1.7	0.0	0.9	0.0	0.0	0.2	0.9	0.4	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1977

Date of First Criticality: 06 Sep 1994

Date of Grid Connection: 11 Nov 1994

Date of Commercial Operation: 10 Apr 1995

Lifetime Generation: 49262.2 GW(e).h

Cumulative Energy Availability Factor: 82.3%

Cumulative Load Factor: 78.8%

Cumulative Unit Capability Factor: 83.1%

Cumulative Energy Unavailability Factor: 17.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1995	3379.4	628.0	85.9	85.9	84.5	84.5	84.5	84.5	5687	89.3
1996	3668.4	619.0	71.7	77.7	71.0	76.7	67.5	74.7	6657	75.8
1997	4805.5	627.0	89.0	81.9	88.9	81.2	87.5	79.4	7897	90.1
1998	4411.9	655.0	85.6	82.9	83.0	81.7	76.9	78.7	7609	86.9
1999	5110.6	682.0	93.3	85.2	92.3	84.0	87.3	80.6	8459	96.6
2000	3339.1	645.0	58.6	80.5	56.6	79.2	58.9	76.8	5865	66.8
2001	4228.1	645.0	74.8	79.6	74.7	78.5	74.8	76.5	6952	79.4
2002	5161.0	680.0	91.5	81.3	91.5	80.3	86.6	77.9	8273	94.4
2003	4604.8	680.0	82.5	81.4	82.1	80.5	77.3	77.8	7359	84.0
2004	4578.2	680.0	83.8	81.7	83.0	80.8	76.6	77.7	7449	84.8
2005	5310.3	680.0	96.9	83.1	96.5	82.3	89.1	78.8	8611	98.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1995 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		37			211	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling				799		
D. Inspection, maintenance or repair without refuelling	109			18		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					101	
Z. Others					8	
Subtotal	109	37	0	817	324	0
Total		146			1141	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1995 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		17
12. Reactor I&C Systems		26
13. Reactor Auxiliary Systems		9
14. Safety Systems		4
15. Reactor Cooling Systems		2
16. Steam generation systems		5
31. Turbine and auxiliaries	37	32
32. Feedwater and Main Steam System		23
33. Circulating Water System		14
35. All other I&C Systems		1
41. Main Generator Systems		34
42. Electrical Power Supply Systems		33
Total	37	200

NL-2 BORSSELE

Operator: EPZ (N.V. ELEKTRICITEITS-PRODUKTIEMAATSCHAPPIJ ZUID-NEDERLAND)

Contractor: KWU/STOR (KRAFTWERK UNION AG / STORK)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 450.0 MW(e)
Design Net Capacity: 450.0 MW(e)
Design Discharge Burnup: 39000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3771.9 GW(e).h
Energy Availability Factor: 95.5%
Load Factor: 95.7%
Operating Factor: 96.2%
Energy Unavailability Factor: 4.5%
Total Off-line Time: 330 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	336.9	304.6	336.7	325.5	327.1	322.6	331.0	326.0	178.8	334.4	324.3	324.0	3771.9
EAF (%)	100.0	100.0	100.0	100.0	97.5	99.7	99.1	97.5	55.4	99.9	100.0	96.3	95.5
UCF (%)	100.0	100.0	100.0	100.0	97.5	99.7	99.1	99.6	58.5	99.9	100.0	96.3	95.9
LF (%)	100.6	100.7	100.6	100.6	97.7	99.6	98.9	97.4	55.2	99.7	100.1	96.8	95.7
OF (%)	100.0	100.0	99.9	100.1	98.0	100.0	100.0	100.0	59.2	100.0	100.0	97.2	96.2
EUF (%)	0.0	0.0	0.0	0.0	2.5	0.3	0.9	2.5	44.6	0.1	0.0	3.7	4.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	29.9	0.0	0.0	0.0	2.5
UCLF (%)	0.0	0.0	0.0	0.0	2.5	0.2	0.9	0.4	11.6	0.1	0.0	3.7	1.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	3.1	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

2005 IS THE 2ND BEST YEAR OF PRODUCTION DURING LIFETIME

5. Historical Summary

Date of Construction Start:	01 Jul 1969	Lifetime Generation:	105144.0 GW(e).h
Date of First Criticality:	20 Jun 1973	Cumulative Energy Availability Factor:	83.8%
Date of Grid Connection:	04 Jul 1973	Cumulative Load Factor:	82.6%
Date of Commercial Operation:	26 Oct 1973	Cumulative Unit Capability Factor:	87.9%
		Cumulative Energy Unavailability Factor:	16.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	485.9	447.0	100.0	100.0	49.2	49.2	49.2	49.2	1103	50.0
1974	2993.7	477.0	100.0	100.0	71.6	67.4	71.6	67.4	6840	78.1
1975	2776.9	447.0	70.8	87.4	70.8	68.9	70.9	68.9	6494	74.1
1976	3274.4	450.0	100.0	91.2	82.8	73.1	82.8	73.1	7521	85.6
1977	3142.4	450.0	100.0	93.3	80.4	74.8	79.7	74.7	7318	83.5
1978	3424.1	445.0	100.0	94.5	88.4	77.3	87.8	77.1	7997	91.3
1979	2900.0	445.0	100.0	95.4	83.5	78.3	74.4	76.7	6785	77.5
1980	3593.0	447.0	100.0	96.0	92.9	80.3	91.5	78.7	8496	96.7
1981	3048.3	447.0	78.8	94.0	78.8	80.1	77.8	78.6	7094	81.0
1982	3315.9	452.0	83.9	92.9	83.9	80.5	83.7	79.2	7489	85.5
1983	3050.0	452.0	76.9	91.3	76.9	80.2	77.0	79.0	6959	79.4
1984	3062.0	452.0	76.6	90.0	76.6	79.8	77.1	78.8	6895	78.5
1985	3261.2	452.0	83.3	89.4	81.9	80.0	82.4	79.1	7299	83.3
1986	3574.0	452.0	91.6	89.6	89.9	80.8	90.3	79.9	8053	91.9
1987	2950.9	452.0	76.6	88.7	74.2	80.3	74.5	79.6	6756	77.1
1988	3032.6	452.0	76.2	87.9	76.2	80.0	76.4	79.3	6763	77.0
1989	3421.9	481.0	87.8	87.9	87.8	80.5	81.2	79.5	7711	88.0
1990	2885.9	481.0	75.6	87.1	75.6	80.2	68.5	78.8	6636	75.8
1991	2728.5	452.0	69.3	86.2	69.2	79.6	68.9	78.3	6221	71.0
1992	2830.3	452.0	82.9	86.0	80.6	79.7	71.3	77.9	6412	73.0
1993	3328.2	452.0	84.3	85.9	83.6	79.9	84.1	78.2	7376	84.2
1994	3322.0	452.0	84.8	85.8	84.8	80.1	83.9	78.5	7489	85.5
1995	3386.8	452.0	87.1	85.9	86.8	80.4	85.5	78.8	7654	87.4
1996	3520.3	452.0	88.3	86.0	88.2	80.7	88.7	79.2	7978	90.8
1997	Data not provided									
1998	"									
1999	3604.2	449.0	94.2	86.3	94.2	81.3	91.6	79.7	8363	95.5
2000	3699.0	449.0	93.9	86.6	93.1	81.8	93.8	80.3	8262	94.1
2001	3746.7	449.0	94.6	86.9	94.6	82.2	95.3	80.8	8404	95.9
2002	3686.9	450.0	93.8	87.2	93.4	82.6	93.5	81.3	8284	94.6
2003	3788.3	450.0	95.3	87.5	95.3	83.1	96.1	81.8	8431	96.2
2004	3604.7	450.0	91.1	87.6	91.1	83.4	91.2	82.1	8073	91.9
2005	3771.9	450.0	95.9	87.9	95.5	83.8	95.7	82.6	8430	96.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		36			152	
B. Refuelling without a maintenance				32	1	
C. Inspection, maintenance or repair combined with refuelling	209			770	18	
D. Inspection, maintenance or repair without refuelling				52		
E. Testing of plant systems or components		85			14	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	4	5
Subtotal	209	121	0	854	189	6
Total		330			1049	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		4
14. Safety Systems		15
15. Reactor Cooling Systems		19
16. Steam generation systems		41
31. Turbine and auxiliaries	21	19
32. Feedwater and Main Steam System	15	32
33. Circulating Water System		3
41. Main Generator Systems		0
42. Electrical Power Supply Systems		12
Total	36	149

PK-2 CHASNUPP 1

Operator: PAEC (PAKISTAN ATOMIC ENERGY COMMISSION)
Contractor: CNNC (CHINA NATIONAL NUCLEAR CORPORATION)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 300.0 MW(e)
Design Net Capacity: 300.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2155.2 GW(e).h
Energy Availability Factor: 81.9%
Load Factor: 82.0%
Operating Factor: 85.1%
Energy Unavailability Factor: 18.1%
Total Off-line Time: 1302 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	222.1	197.7	207.6	215.0	218.8	181.0	200.1	206.5	199.6	0.9	81.1	224.9	2155.2
EAF (%)	99.5	98.0	93.0	99.5	98.0	83.8	89.6	92.5	92.4	0.5	37.5	99.8	81.9
UCF (%)	99.5	98.0	93.0	99.5	98.0	83.8	89.7	92.5	92.4	0.5	37.5	99.8	81.9
LF (%)	99.5	98.0	93.0	99.7	98.0	83.8	89.6	92.5	92.4	0.4	37.5	100.8	82.0
OF (%)	100.0	100.0	93.4	100.1	100.0	96.8	93.5	94.6	100.0	1.1	43.6	100.0	85.1
EUF (%)	0.5	2.0	7.0	0.5	2.0	16.2	10.4	7.5	7.6	99.5	62.5	0.2	18.1
PUF (%)	0.2	2.0	0.2	0.5	0.0	2.7	0.7	1.0	7.5	99.5	62.5	0.2	14.8
UCLF (%)	0.3	0.0	6.8	0.0	2.0	13.5	9.7	6.5	0.1	0.0	0.0	0.0	3.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

REFUELING OUTAGE-3 WAS SUCCESSFULLY COMPLETED DURING THE YEAR.

5. Historical Summary

Date of Construction Start: 01 Aug 1993 **Lifetime Generation:** 9379.9 GW(e).h
Date of First Criticality: 03 May 2000 **Cumulative Energy Availability Factor:** 66.2%
Date of Grid Connection: 13 Jun 2000 **Cumulative Load Factor:** 66.0%
Date of Commercial Operation: 15 Sep 2000 **Cumulative Unit Capability Factor:** 67.3%
Cumulative Energy Unavailability Factor: 33.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	529.2	300.0	72.2	72.2	72.2	72.2	68.7	68.7	1860	72.4
2001	1581.8	300.0	62.4	64.7	60.1	62.8	60.2	62.1	5918	67.6
2002	1356.0	300.0	53.7	59.9	52.2	58.2	51.6	57.5	4790	54.7
2003	1809.8	300.0	68.9	62.6	68.9	61.4	68.9	61.0	6879	78.5
2004	1750.7	300.0	68.1	63.9	66.4	62.6	66.4	62.2	5949	67.7
2005	2155.2	300.0	81.9	67.3	81.9	66.2	82.0	66.0	7458	85.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		216			887	
C. Inspection, maintenance or repair combined with refuelling	1272			622		
D. Inspection, maintenance or repair without refuelling				96		
E. Testing of plant systems or components				12	4	
H. Nuclear regulatory requirements				90		
J. Grid failure or grid unavailability		58				185
L. Human factor related					18	
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant , spare part delivery problems etc.)						52
Z. Others		45			70	
Subtotal	1272	319	0	820	979	237
Total		1591			2036	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	87	17
14. Safety Systems		140
15. Reactor Cooling Systems	85	207
31. Turbine and auxiliaries		120
32. Feedwater and Main Steam System	43	67
33. Circulating Water System		17
35. All other I&C Systems		8
41. Main Generator Systems		1
42. Electrical Power Supply Systems		305
Total	215	882

PK-1 KANUPP

Operator: PAEC (PAKISTAN ATOMIC ENERGY COMMISSION)

Contractor: CGE (CANADIAN GENERAL ELECTRIC)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 125.0 MW(e)
Design Net Capacity: 125.0 MW(e)
Design Discharge Burnup: 8650 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 253.6 GW(e).h
Energy Availability Factor: 37.7%
Load Factor: 23.2%
Operating Factor: 75.7%
Energy Unavailability Factor: 62.3%
Total Off-line Time: 2127 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	29.1	17.8	27.8	27.0	20.1	8.6	16.1	15.7	27.0	28.9	24.4	11.0	253.6
EAF (%)	31.3	21.2	29.9	30.0	46.5	76.9	52.4	50.5	30.0	31.1	40.5	11.8	37.7
UCF (%)	31.3	21.2	29.9	30.0	46.5	76.9	52.4	50.5	30.0	31.1	40.5	11.8	37.7
LF (%)	31.3	21.2	29.9	30.0	21.6	9.5	17.3	16.9	30.0	31.1	27.1	11.8	23.2
OF (%)	100.0	68.6	100.0	100.0	75.1	32.6	59.1	55.2	95.6	100.0	86.5	35.5	75.7
EUF (%)	68.7	78.8	70.1	70.0	53.5	23.1	47.6	49.5	70.0	68.9	59.5	88.2	62.3
PUF (%)	68.7	47.4	70.1	70.0	53.5	23.1	41.8	38.2	65.5	68.9	59.5	88.2	58.0
UCLF (%)	0.0	31.4	0.0	0.0	0.0	0.0	5.8	11.3	4.5	0.0	0.0	0.0	4.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

KANUPP OPERATED AT AN AVERAGE LOAD OF 50 MWE DURING THE REPORTING PERIOD. KANUPP HAS GENERATED 254 MILLION UNITS (NET) OF ELECTRICITY. THE PLANNED ENERGY LOSSES 661872 MWH ARE DUE TO THE PLANT OPERATING AT LOW LOAD. KANUPP WAS SHUTDOWN ON DECEMBER 12, 2005 TO UNDERTAKE REMAINING SAFETY UPGRADES AS PER REQUIREMENT OF REGULATING AUTHORITY FOR RELICENSING OF PLANT FOR ITS CONTINUED OPERATION BEYOND NOMINAL DESIGN LIFE OF 30 YEARS. SOME SIGNIFICANT SAFETY UPGRADE JOBS INCLUDE ADDITION OF FORCED EMERGENCY INJECTION WATER SYSTEM, REDUNDANT EMERGENCY INJECTION WATER SYSTEM, REPLACEMENT OF MODERATOR SYSTEM PUMP MOTORS AND ACTIVE DRAINAGE SYSTEM PUMP MOTORS WITH LOCA QUALIFIED MOTORS. FUEL CHANNEL INSPECTION, INSPECTION OF FEEDERS FOR WALL THINNING, INSPECTION OF STEAM GENERATORS, MODIFICATION OF ANNULAS GAS SYSTEM, REPLACEMENT OF I/C SAFETY LOOPS AND REPLACEMENT OF PROCESS SALT WATER INLET/OUTLET HEADERS. THE OUTAGE IS SCHEDULED TO CONTINUE FOR ABOUT FOUR MONTHS.

5. Historical Summary

Date of Construction Start:	01 Aug 1966	Lifetime Generation:	9978.0 GW(e).h
Date of First Criticality:	01 Aug 1971	Cumulative Energy Availability Factor:	28.2%
Date of Grid Connection:	18 Oct 1971	Cumulative Load Factor:	27.4%
Date of Commercial Operation:	07 Dec 1972	Cumulative Unit Capability Factor:	44.9%
		Cumulative Energy Unavailability Factor:	71.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	39.4	137.0	100.0	100.0	38.7	38.7	38.7	38.7	597	80.2
1973	394.8	126.0	100.0	100.0	35.6	35.9	35.8	36.0	6197	70.7
1974	583.9	126.0	100.0	100.0	52.7	43.9	52.9	44.1	6749	77.0
1975	494.9	126.0	100.0	100.0	44.8	44.2	44.8	44.3	6375	72.8
1976	487.3	137.0	40.5	84.5	40.5	43.3	40.5	43.3	6026	68.6
1977	339.4	126.0	30.7	74.1	30.7	40.8	30.7	40.9	5290	60.4
1978	228.4	125.0	20.9	65.6	20.9	37.6	20.9	37.7	4473	51.1
1979	29.6	125.0	2.7	56.9	2.7	32.8	2.7	32.8	802	9.2
1980	67.9	125.0	100.0	62.1	6.2	29.6	6.2	29.6	2427	27.6
1981	192.2	125.0	100.0	66.2	17.5	28.3	17.6	28.3	5379	61.4
1982	70.9	125.0	100.0	69.5	6.5	26.1	6.5	26.2	1801	20.6
1983	194.0	125.0	100.0	72.2	17.7	25.4	17.7	25.4	4754	54.3
1984	290.7	137.0	26.9	68.2	24.9	25.3	24.2	25.3	5592	63.7
1985	262.0	137.0	22.7	64.5	21.8	25.0	21.8	25.0	3895	44.5
1986	476.2	125.0	44.0	63.1	43.5	26.3	43.5	26.3	7211	82.3
1987	274.8	125.0	25.6	60.6	25.1	26.2	25.1	26.2	4541	51.8
1988	171.4	125.0	16.2	57.9	15.6	25.6	15.6	25.6	2962	33.7
1989	60.9	125.0	5.6	54.9	5.6	24.4	5.6	24.4	1145	13.1
1990	375.9	125.0	34.3	53.8	34.3	25.0	34.3	25.0	5331	60.9
1991	370.3	125.0	34.8	52.8	33.8	25.4	33.8	25.4	6126	69.9
1992	499.7	125.0	45.5	52.5	45.5	26.4	45.5	26.4	6396	72.8
1993	369.6	125.0	35.8	51.7	33.8	26.8	33.8	26.7	4620	52.7
1994	523.6	125.0	53.6	51.8	47.8	27.7	47.8	27.7	7518	85.8
1995	461.0	125.0	44.0	51.4	42.1	28.3	42.1	28.3	7520	85.8
1996	310.9	125.0	32.6	50.7	28.3	28.3	28.3	28.3	5291	60.2
1997	386.1	125.0	36.8	50.1	35.3	28.6	35.3	28.6	6391	73.0
1998	353.4	125.0	31.3	49.4	29.7	28.6	32.3	28.7	4799	54.8
1999	69.0	125.0	11.9	48.0	11.9	28.0	6.3	27.9	1046	11.9
2000	368.3	125.0	34.6	47.6	33.5	28.2	33.5	28.1	5078	57.8
2001	399.5	125.0	45.1	47.5	36.5	28.5	36.5	28.4	6049	69.1
2002	444.0	125.0	41.3	47.3	40.5	28.9	40.5	28.8	6601	75.4
2003	0.0	125.0	0.0	45.8	0.0	28.0	0.0	27.9	0	0.0
2004	183.0	125.0	25.5	45.2	24.7	27.9	16.7	27.5	6467	73.6
2005	253.6	125.0	37.7	44.9	37.7	28.2	23.2	27.4	6633	75.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		338			1137	
B. Refuelling without a maintenance					67	
D. Inspection, maintenance or repair without refuelling				1668		
E. Testing of plant systems or components				0		
G. Major back-fitting, refurbishment or upgrading activities without refuelling	480			296		
J. Grid failure or grid unavailability			1285			97
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				4	110	13
Subtotal	480	338	1285	1968	1314	110
Total		2103			3392	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	43	10
12. Reactor I&C Systems		125
13. Reactor Auxiliary Systems	211	116
14. Safety Systems		18
15. Reactor Cooling Systems	84	194
16. Steam generation systems		34
17. Safety I&C Systems (excluding reactor I&C)		0
21. Fuel Handling and Storage Facilities		25
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		203
33. Circulating Water System		33
41. Main Generator Systems		5
42. Electrical Power Supply Systems		140
XX. Miscellaneous Systems		5
Total	338	935

RO-1 CERNAVODA-1

Operator: SNN (SOCIETATEA NATIONALA NUCLEARELECTRICA S.A.)

Contractor: AECL (ATOMIC ENERGY OF CANADA LTD.)

1. Station Details

Type: PHWR
Net Reference Unit Power at the beginning of 2005: 655.0 MW(e)
Design Net Capacity: 660.0 MW(e)
Design Discharge Burnup: 7500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5113.0 GW(e).h
Energy Availability Factor: 89.3%
Load Factor: 89.1%
Operating Factor: 89.9%
Energy Unavailability Factor: 10.7%
Total Off-line Time: 882 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	399.7	382.1	485.4	473.9	486.5	467.1	437.1	287.0	281.0	489.0	438.9	485.3	5113.0
EAF (%)	82.2	87.3	99.7	99.6	100.0	99.5	90.2	59.6	60.2	99.9	92.9	100.0	89.3
UCF (%)	82.2	87.3	99.7	99.6	100.0	99.7	92.2	60.9	60.2	99.9	92.9	100.0	89.6
LF (%)	82.0	86.8	99.6	100.6	99.8	99.0	89.7	58.9	59.6	100.2	93.1	99.6	89.1
OF (%)	82.7	87.2	99.9	100.1	100.0	100.0	93.0	60.8	62.2	100.0	92.9	100.0	89.9
EUF (%)	17.8	12.7	0.3	0.4	0.0	0.5	9.8	40.4	39.8	0.1	7.1	0.0	10.7
PUF (%)	0.1	0.1	0.1	0.1	0.0	0.0	0.0	39.1	39.8	0.1	0.0	0.0	6.6
UCLF (%)	17.7	12.6	0.3	0.3	0.0	0.3	7.8	0.0	0.0	0.0	7.1	0.0	3.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.2	2.0	1.3	0.0	0.0	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE UNIT WAS OPERATED AT FULL POWER IN BASE LOAD MODE. THE ANNUAL PLANNED OUTAGE HAD A SCHEDULED DURATION OF 24 DAYS. THE UNIT WAS SYNCHRONIZED TO THE GRID 16 HOURS AHEAD OF SCHEDULE. THE UNIT HAS DELIVERED 29,144 GCAL THERMAL ENERGY TO THE DISTRICT HEATING BUT THIS WAS DONE WITHOUT REDUCING THE UNIT REFERENCE POWER.

5. Historical Summary

Date of Construction Start: 01 Jul 1982 **Lifetime Generation:** 45893.0 GW(e).h
Date of First Criticality: 16 Apr 1996 **Cumulative Energy Availability Factor:** 86.3%
Date of Grid Connection: 11 Jul 1996 **Cumulative Load Factor:** 86.7%
Date of Commercial Operation: 02 Dec 1996 **Cumulative Unit Capability Factor:** 87.6%
Cumulative Energy Unavailability Factor: 13.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1996	461.9	645.0	94.4	94.4	94.4	94.4	99.6	99.6	719	100.0
1997	4953.3	646.0	87.3	87.9	86.7	87.3	87.5	88.4	7753	88.5
1998	4908.7	655.0	85.8	86.9	85.2	86.3	85.5	87.0	7585	86.6
1999	4813.0	655.0	83.8	85.9	83.5	85.4	83.9	86.0	7389	84.3
2000	5053.4	655.0	87.9	86.4	87.6	85.9	87.8	86.5	7791	88.7
2001	5049.9	655.0	88.2	86.7	87.5	86.2	88.0	86.8	7717	88.1
2002	5106.2	655.0	89.1	87.1	88.7	86.6	89.0	87.1	7854	89.7
2003	4541.4	655.0	86.7	87.1	78.7	85.5	79.1	86.0	7024	80.2
2004	5142.3	655.0	89.4	87.3	89.1	86.0	89.4	86.4	7892	89.8
2005	5113.0	655.0	89.6	87.6	89.3	86.3	89.1	86.7	7878	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1997 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		294			262	
B. Refuelling without a maintenance					13	
D. Inspection, maintenance or repair without refuelling	560			627		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					27	5
L. Human factor related					0	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						70
Subtotal	560	294	0	627	302	75
Total		854			1004	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1997 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	150	54
13. Reactor Auxiliary Systems		20
14. Safety Systems		3
31. Turbine and auxiliaries	45	79
32. Feedwater and Main Steam System	47	29
33. Circulating Water System		0
41. Main Generator Systems		4
42. Electrical Power Supply Systems	52	6
XX. Miscellaneous Systems		39
Total	294	234

RU-96 BALAKOVO-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 950.0 MW(e)
 Design Net Capacity: 950.0 MW(e)
 Design Discharge Burnup: 40000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7312.7 GW(e).h
 Energy Availability Factor: 86.2%
 Load Factor: 87.9%
 Operating Factor: 87.2%
 Energy Unavailability Factor: 13.8%
 Total Off-line Time: 1123 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	721.3	661.7	730.7	604.5	0.0	372.5	708.3	712.2	694.6	709.0	686.6	711.4	7312.7
EAF (%)	98.9	100.0	100.0	85.8	0.0	55.0	99.5	99.9	100.0	97.3	99.6	99.9	86.2
UCF (%)	100.0	100.0	100.0	86.9	0.0	55.0	100.0	100.0	100.0	98.2	100.0	100.0	86.6
LF (%)	102.1	103.6	103.4	88.4	0.0	54.5	100.2	100.8	101.6	100.2	100.4	100.6	87.9
OF (%)	100.0	100.0	99.9	86.9	0.0	60.6	100.0	100.0	100.0	100.0	100.0	100.0	87.2
EUf (%)	1.1	0.0	0.0	14.2	100.0	45.0	0.5	0.1	0.0	2.7	0.4	0.1	13.8
PUF (%)	0.0	0.0	0.0	13.1	100.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.2
XUF (%)	1.1	0.0	0.0	1.0	0.0	0.0	0.5	0.1	0.0	0.9	0.4	0.1	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 91225 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.04.27 TO 05.06.12. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Dec 1980 Lifetime Generation: 100937.0 GW(e).h
 Date of First Criticality: 12 Dec 1985 Cumulative Energy Availability Factor: 64.2%
 Date of Grid Connection: 28 Dec 1985 Cumulative Load Factor: 60.9%
 Date of Commercial Operation: 23 May 1986 Cumulative Unit Capability Factor: 67.1%
 Cumulative Energy Unavailability Factor: 35.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	3675.6	950.0	66.3	66.3	66.3	66.3	65.8	65.8	4171	70.9
1987	4703.7	1000.0	57.4	60.8	57.4	60.8	53.7	58.4	5302	60.5
1988	6476.9	950.0	80.9	68.2	80.9	68.2	77.6	65.5	7207	82.0
1989	4473.9	950.0	56.4	65.0	56.3	65.0	53.8	62.3	5141	58.7
1990	739.1	950.0	9.1	53.2	9.1	53.2	8.9	51.0	887	10.1
1991	4951.6	950.0	60.2	54.4	59.8	54.4	59.5	52.5	5780	66.0
1992	6352.3	950.0	76.4	57.7	76.3	57.6	76.1	56.0	7666	87.3
1993	3326.1	950.0	46.1	56.2	39.9	55.3	40.0	53.9	4230	48.3
1994	1759.5	950.0	77.3	58.6	77.3	57.9	21.1	50.2	2307	26.3
1995	2018.0	950.0	28.6	55.5	28.6	54.8	24.2	47.5	4810	54.9
1996	4872.5	950.0	86.5	58.4	59.0	55.2	58.4	48.5	5913	67.3
1997	4729.0	950.0	60.4	58.6	57.2	55.4	56.8	49.2	5818	66.4
1998	4329.8	950.0	55.8	58.4	52.2	55.1	52.0	49.5	5671	64.7
1999	5141.3	950.0	65.6	58.9	62.1	55.7	61.8	50.4	6337	72.3
2000	7247.4	950.0	87.5	60.8	86.5	57.8	86.8	52.8	7705	87.7
2001	7407.9	950.0	91.6	62.8	88.2	59.7	89.0	55.1	8041	91.8
2002	6785.7	950.0	86.5	64.2	80.5	60.9	81.5	56.7	7501	85.6
2003	7032.2	950.0	84.7	65.4	83.1	62.2	84.5	58.3	7460	85.2
2004	6626.4	950.0	78.2	66.1	78.0	63.0	79.4	59.4	6901	78.6
2005	7312.7	950.0	86.6	67.1	86.2	64.2	87.9	60.9	7638	87.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					493	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	1162			1338	19	
D. Inspection, maintenance or repair without refuelling				457		
E. Testing of plant systems or components				1	1	
G. Major back-fitting, refurbishment or upgrading activities without refuelling						122
J. Grid failure or grid unavailability						240
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					39	1
L. Human factor related					0	
Subtotal	1162	0	0	1796	565	363
Total		1162			2724	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		1
13. Reactor Auxiliary Systems		3
15. Reactor Cooling Systems		12
16. Steam generation systems		138
17. Safety I&C Systems (excluding reactor I&C)		5
31. Turbine and auxiliaries		75
32. Feedwater and Main Steam System		16
33. Circulating Water System		1
35. All other I&C Systems		13
41. Main Generator Systems		143
42. Electrical Power Supply Systems		34
XX. Miscellaneous Systems		2
Total	0	443

RU-97 BALAKOVO-2

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6948.9 GW(e).h
Energy Availability Factor: 82.5%
Load Factor: 83.5%
Operating Factor: 87.8%
Energy Unavailability Factor: 17.5%
Total Off-line Time: 1073 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	702.6	649.3	729.0	666.2	663.9	73.8	212.6	673.7	639.2	733.9	657.5	547.3	6948.9
EAF (%)	98.7	100.0	100.0	95.2	92.8	11.7	31.2	94.9	92.3	100.0	95.6	77.8	82.5
UCF (%)	100.0	100.0	100.0	100.0	100.0	16.9	31.2	95.2	100.0	100.0	100.0	100.0	86.9
LF (%)	99.4	101.7	103.1	97.4	93.9	10.8	30.1	95.3	93.4	103.7	96.1	77.4	83.5
OF (%)	100.0	100.0	99.9	100.0	100.0	16.8	36.4	100.0	100.0	100.0	100.0	100.0	87.8
EUF (%)	1.3	0.0	0.0	4.8	7.2	88.3	68.8	5.1	7.7	0.0	4.4	22.2	17.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	83.2	68.8	4.8	0.0	0.0	0.0	0.0	13.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	1.3	0.0	0.0	4.8	7.2	5.1	0.0	0.3	7.7	0.0	4.4	22.2	4.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, MAY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 69318 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.06.06 TO 05.07.20. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Aug 1981 **Lifetime Generation:** 91870.0 GW(e).h
Date of First Criticality: 02 Oct 1987 **Cumulative Energy Availability Factor:** 62.3%
Date of Grid Connection: 08 Oct 1987 **Cumulative Load Factor:** 60.7%
Date of Commercial Operation: 18 Jan 1988 **Cumulative Unit Capability Factor:** 66.1%
Cumulative Energy Unavailability Factor: 37.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	5978.4	950.0	76.9	76.9	76.9	76.9	71.6	71.6	6928	78.9
1989	6703.6	950.0	84.8	80.9	84.8	80.8	80.6	76.1	7626	87.1
1990	5476.7	950.0	66.5	76.1	66.3	76.0	65.8	72.7	6165	70.4
1991	4308.4	950.0	51.5	69.9	51.2	69.8	51.8	67.4	4845	55.3
1992	5958.2	950.0	70.6	70.1	70.6	70.0	71.4	68.2	6601	75.1
1993	3776.2	950.0	47.0	66.2	44.3	65.7	45.4	64.4	4147	47.3
1994	4778.5	950.0	83.5	68.7	73.1	66.7	57.4	63.4	8020	91.6
1995	2204.8	950.0	30.1	63.9	30.1	62.2	26.5	58.8	3261	37.2
1996	2227.3	950.0	26.7	59.7	26.7	58.2	26.7	55.2	2604	29.6
1997	4015.9	950.0	63.9	60.2	55.7	58.0	48.3	54.5	6158	70.3
1998	3293.8	950.0	51.0	59.3	40.2	56.4	39.6	53.2	4984	56.9
1999	2927.1	950.0	40.3	57.7	35.4	54.6	35.2	51.7	3942	45.0
2000	5730.1	950.0	83.2	59.7	68.9	55.7	68.7	53.0	7646	87.0
2001	6678.8	950.0	83.9	61.4	79.9	57.4	80.3	54.9	7415	84.6
2002	6756.5	950.0	84.4	63.0	80.4	59.0	81.2	56.7	7408	84.6
2003	6171.8	950.0	74.0	63.7	72.7	59.8	74.2	57.8	6467	73.8
2004	7010.4	950.0	85.0	64.9	82.4	61.2	84.0	59.3	7514	85.5
2005	6948.9	950.0	86.9	66.1	82.5	62.3	83.5	60.7	7688	87.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					529	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	1072			1733	151	
D. Inspection, maintenance or repair without refuelling				166		
J. Grid failure or grid unavailability						11
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					24	
Subtotal	1072	0	0	1899	710	11
Total		1072			2620	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		9
15. Reactor Cooling Systems		11
16. Steam generation systems		442
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		0
32. Feedwater and Main Steam System		27
35. All other I&C Systems		4
41. Main Generator Systems		27
42. Electrical Power Supply Systems		1
Total	0	524

RU-98 BALAKOVO-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6244.4 GW(e).h
Energy Availability Factor: 74.5%
Load Factor: 75.0%
Operating Factor: 80.6%
Energy Unavailability Factor: 25.5%
Total Off-line Time: 1700 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	590.6	493.5	696.8	572.8	701.3	654.8	702.4	693.4	645.2	0.0	0.0	493.6	6244.4
EAF (%)	83.5	77.5	96.9	83.4	98.0	95.1	98.5	97.3	93.2	-0.1	0.0	70.2	74.5
UCF (%)	100.0	100.0	100.0	94.1	100.0	100.0	98.5	97.4	93.6	-0.1	0.0	76.2	79.9
LF (%)	83.6	77.3	98.6	83.7	99.2	95.7	99.4	98.1	94.3	0.0	0.0	69.8	75.0
OF (%)	100.0	100.0	99.9	95.6	100.0	100.0	100.0	100.0	93.6	0.0	0.0	78.9	80.6
EUF (%)	16.5	22.5	3.1	16.6	2.0	4.9	1.5	2.7	6.8	100.1	100.0	29.8	25.5
PUF (%)	0.0	0.0	0.0	5.9	0.0	0.0	1.5	2.6	6.4	100.1	100.0	23.8	20.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	16.5	22.5	3.1	10.7	2.0	4.9	0.0	0.1	0.5	0.0	0.0	6.0	5.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 18369 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.09.29 TO 05.12.07. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Nov 1982
Date of First Criticality: 16 Dec 1988
Date of Grid Connection: 25 Dec 1988
Date of Commercial Operation: 08 Apr 1989

Lifetime Generation: 91845.0 GW(e).h
Cumulative Energy Availability Factor: 67.3%
Cumulative Load Factor: 65.0%
Cumulative Unit Capability Factor: 72.3%
Cumulative Energy Unavailability Factor: 32.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	5483.4	950.0	88.4	88.4	88.4	88.4	87.4	87.4	6015	91.1
1990	5718.7	950.0	68.0	76.8	67.8	76.7	68.7	76.8	6696	76.4
1991	5403.4	950.0	67.1	73.3	64.2	72.1	64.9	72.5	6124	69.9
1992	5545.4	950.0	66.4	71.4	64.8	70.2	66.4	70.9	6202	70.6
1993	4378.6	950.0	61.6	69.4	52.7	66.5	52.6	67.0	5461	62.3
1994	3340.1	950.0	70.7	69.6	70.7	67.2	40.1	62.4	5389	61.5
1995	2674.7	950.0	53.1	67.2	47.5	64.3	32.1	57.9	5511	62.9
1996	5315.4	950.0	75.9	68.3	64.3	64.3	63.7	58.6	7085	80.7
1997	2058.8	950.0	38.8	64.9	25.3	59.9	24.7	54.8	3395	38.8
1998	5348.5	950.0	73.0	65.8	64.4	60.3	64.3	55.7	7136	81.5
1999	5458.0	950.0	72.0	66.3	65.6	60.8	65.6	56.7	6552	74.8
2000	6482.9	950.0	82.0	67.7	77.2	62.2	77.7	58.4	7327	83.4
2001	6050.7	950.0	78.6	68.5	72.1	63.0	72.7	59.6	6927	79.1
2002	6926.3	950.0	85.3	69.8	82.0	64.4	83.2	61.3	7478	85.4
2003	7016.1	950.0	85.1	70.8	83.2	65.6	84.3	62.8	7471	85.3
2004	7227.8	950.0	86.4	71.8	85.1	66.9	86.6	64.4	7607	86.6
2005	6244.4	950.0	79.9	72.3	74.5	67.3	75.0	65.0	7060	80.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					119	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	1668			1520	38	
D. Inspection, maintenance or repair without refuelling	32			313		
E. Testing of plant systems or components					2	
J. Grid failure or grid unavailability						85
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					4	
Subtotal	1700	0	0	1833	172	85
Total	1700			2090		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		38
13. Reactor Auxiliary Systems		0
15. Reactor Cooling Systems		1
31. Turbine and auxiliaries		13
32. Feedwater and Main Steam System		9
33. Circulating Water System		11
35. All other I&C Systems		7
41. Main Generator Systems		7
42. Electrical Power Supply Systems		17
Total	0	103

RU-99 BALAKOVO-4

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6938.3 GW(e).h
Energy Availability Factor: 82.1%
Load Factor: 83.4%
Operating Factor: 87.9%
Energy Unavailability Factor: 17.9%
Total Off-line Time: 1062 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	652.3	632.6	667.3	612.7	709.2	648.0	373.8	47.2	695.9	735.0	665.8	498.6	6938.3
EAF (%)	91.9	97.7	91.7	87.6	98.4	93.9	52.9	7.5	99.5	100.0	96.5	71.1	82.1
UCF (%)	100.0	100.0	91.7	100.0	100.0	100.0	55.0	7.5	100.0	100.0	100.0	100.0	87.6
LF (%)	92.3	99.1	94.4	89.6	100.3	94.7	52.9	6.7	101.7	103.9	97.3	70.5	83.4
OF (%)	100.0	100.0	92.2	100.0	100.0	100.0	55.0	10.1	100.0	100.0	100.0	100.0	87.9
EUF (%)	8.1	2.3	8.3	12.4	1.6	6.1	47.1	92.5	0.5	0.0	3.5	28.9	17.9
PUF (%)	0.0	0.0	8.3	0.0	0.0	0.0	45.0	92.5	0.0	0.0	0.0	0.0	12.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	8.1	2.3	0.0	12.4	1.6	6.1	2.1	0.0	0.5	0.0	3.5	28.9	5.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 72549 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.07.18 TO 05.08.28. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Apr 1984
Date of First Criticality: 24 Mar 1993
Date of Grid Connection: 11 Apr 1993
Date of Commercial Operation: 22 Dec 1993

Lifetime Generation: 73866.0 GW(e).h
Cumulative Energy Availability Factor: 71.6%
Cumulative Load Factor: 70.2%
Cumulative Unit Capability Factor: 78.1%
Cumulative Energy Unavailability Factor: 28.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	423.2	950.0	60.0	60.0	60.0	60.0	59.9	59.9	480	64.5
1994	3828.5	950.0	69.5	68.8	48.5	49.4	46.0	47.1	4604	52.6
1995	5610.0	950.0	88.7	78.3	86.5	67.1	67.4	56.8	8760	100.0
1996	4545.5	950.0	59.9	72.3	55.5	63.4	54.5	56.1	6652	75.7
1997	4637.7	950.0	71.3	72.1	59.6	62.4	55.7	56.0	6637	75.8
1998	5042.5	950.0	71.3	71.9	60.9	62.1	60.6	56.9	6936	79.2
1999	5803.9	950.0	77.5	72.9	69.6	63.4	69.7	59.0	7268	83.0
2000	6665.9	950.0	81.0	74.0	78.9	65.6	79.9	62.0	7216	82.1
2001	6578.1	950.0	83.9	75.2	78.3	67.1	79.0	64.1	7354	83.9
2002	6292.9	950.0	77.3	75.5	72.8	67.8	75.6	65.3	6723	76.7
2003	7223.8	950.0	85.8	76.5	84.6	69.4	86.8	67.5	7541	86.1
2004	7022.9	950.0	85.4	77.3	82.5	70.6	84.2	69.0	7540	85.8
2005	6938.3	950.0	87.6	78.1	82.1	71.6	83.4	70.2	7699	87.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1994 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					12	
C. Inspection, maintenance or repair combined with refuelling	1004			1396		
D. Inspection, maintenance or repair without refuelling	57			22		
J. Grid failure or grid unavailability						28
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						139
Subtotal	1061	0	0	1418	12	167
Total	1061			1597		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1994 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
31. Turbine and auxiliaries		3
32. Feedwater and Main Steam System		2
35. All other I&C Systems		2
41. Main Generator Systems		1
42. Electrical Power Supply Systems		0
Total	0	10

RU-21 BELOYARSKY-3(BN-600)

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: FBR
Net Reference Unit Power
at the beginning of 2005: 560.0 MW(e)
Design Net Capacity: 560.0 MW(e)
Design Discharge Burnup: 100000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3802.7 GW(e).h
Energy Availability Factor: 77.8%
Load Factor: 77.5%
Operating Factor: 79.6%
Energy Unavailability Factor: 22.2%
Total Off-line Time: 1783 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	409.8	371.5	372.6	0.0	59.1	401.0	409.3	411.3	320.2	241.3	399.0	407.7	3802.7
EAF (%)	98.4	98.0	89.7	-0.1	16.0	99.4	98.4	98.8	79.9	59.0	98.8	97.7	77.8
UCF (%)	100.0	100.0	90.4	0.0	16.0	99.9	100.0	100.0	80.5	59.4	100.0	100.0	78.8
LF (%)	98.4	98.7	89.4	0.0	14.2	99.5	98.2	98.7	79.4	57.9	99.0	97.8	77.5
OF (%)	100.0	100.0	92.6	0.0	17.5	100.0	100.0	100.0	81.8	64.7	100.0	100.0	79.6
EUF (%)	1.6	2.0	10.3	100.1	84.0	0.6	1.6	1.2	20.1	41.0	1.2	2.3	22.2
PUF (%)	0.0	0.0	9.0	100.0	83.9	0.0	0.0	0.0	19.5	40.6	0.0	0.0	21.2
UCLF (%)	0.0	0.0	0.6	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
XUF (%)	1.6	2.0	0.7	0.1	0.0	0.5	1.6	1.2	0.6	0.4	1.2	2.3	1.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE RUSSIA'S FEDERAL ENERGY COMMISSION. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JUNE. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 47 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.03.29 TO 05.05.26. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Jan 1969	Lifetime Generation:	89277.0 GW(e).h
Date of First Criticality:	26 Feb 1980	Cumulative Energy Availability Factor:	74.1%
Date of Grid Connection:	08 Apr 1980	Cumulative Load Factor:	73.9%
Date of Commercial Operation:	01 Nov 1981	Cumulative Unit Capability Factor:	75.0%
		Cumulative Energy Unavailability Factor:	25.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	Data not provided									
1982	"									
1983	"									
1984	"									
1985	"									
1986	"									
1987	3895.0	600.0	75.9	75.9	75.9	75.9	74.1	74.1	6714	76.6
1988	3762.2	560.0	77.0	76.4	77.0	76.4	76.5	75.3	6810	77.5
1989	3694.4	560.0	77.0	76.6	77.0	76.6	75.3	75.3	6800	77.6
1990	3198.0	560.0	66.6	74.2	65.9	74.0	65.2	72.8	6627	75.7
1991	3394.0	560.0	63.6	72.1	63.6	71.9	69.2	72.1	6631	75.7
1992	4095.0	560.0	83.1	73.9	82.8	73.7	83.3	73.9	7449	84.8
1993	3914.9	560.0	79.6	74.7	79.5	74.5	79.8	74.8	7065	80.7
1994	3810.7	560.0	78.9	75.2	78.8	75.1	77.7	75.1	6977	79.6
1995	3413.3	560.0	72.3	74.9	70.7	74.6	69.6	74.5	6953	79.4
1996	3722.3	560.0	78.1	75.2	76.3	74.7	75.7	74.6	7010	79.8
1997	3545.8	560.0	74.6	75.1	73.0	74.6	72.3	74.4	6596	75.3
1998	2335.3	560.0	49.2	73.0	47.7	72.4	47.6	72.2	4385	50.1
1999	3721.0	560.0	78.0	73.4	76.2	72.7	75.9	72.5	6972	79.6
2000	3565.8	560.0	75.5	73.5	72.5	72.6	72.5	72.5	6820	77.6
2001	3891.1	560.0	80.7	74.0	79.9	73.1	79.3	72.9	7214	82.4
2002	3774.4	560.0	79.3	74.3	77.3	73.4	76.9	73.2	7069	80.7
2003	3693.3	560.0	76.8	74.5	75.7	73.5	75.3	73.3	6836	78.0
2004	3927.6	560.0	80.8	74.8	80.0	73.9	79.8	73.7	7185	81.8
2005	3802.7	560.0	78.8	75.0	77.8	74.1	77.5	73.9	6977	79.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					196	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1783			1166		
D. Inspection, maintenance or repair without refuelling				524	7	
H. Nuclear regulatory requirements						0
J. Grid failure or grid unavailability						4
Subtotal	1783	0	0	1690	205	4
Total	1783			1899		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		19
15. Reactor Cooling Systems		47
21. Fuel Handling and Storage Facilities		5
32. Feedwater and Main Steam System		2
35. All other I&C Systems		6
42. Electrical Power Supply Systems		1
Total	0	80

RU-141 BILIBINO-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 11.0 MW(e)
Design Net Capacity: 11.0 MW(e)
Design Discharge Burnup: 3000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 26.2 GW(e).h
Energy Availability Factor: 38.5%
Load Factor: 27.2%
Operating Factor: 78.8%
Energy Unavailability Factor: 61.5%
Total Off-line Time: 1856 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	3.1	1.7	0.0	0.0	2.3	1.4	2.2	2.2	2.5	1.9	4.4	4.5	26.2
EAF (%)	48.4	33.8	4.5	4.5	40.4	33.8	43.0	42.3	43.6	35.1	65.3	66.4	38.5
UCF (%)	100.0	62.6	4.6	4.6	84.6	100.0	100.0	100.0	99.7	100.0	100.0	100.0	79.8
LF (%)	37.4	22.7	0.0	0.0	27.9	18.0	27.0	27.3	31.7	22.8	55.3	55.3	27.2
OF (%)	100.0	60.9	0.0	0.0	83.9	100.0	100.0	100.0	98.8	100.0	100.0	100.0	78.8
EUF (%)	51.6	66.2	95.5	95.5	59.6	66.2	57.0	57.7	56.4	64.9	34.7	33.6	61.5
PUF (%)	0.0	37.4	95.5	95.5	15.4	0.0	0.0	0.0	0.3	0.0	0.0	0.0	20.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	51.6	28.8	0.0	0.0	44.3	66.2	57.0	57.7	56.1	64.9	34.7	33.6	41.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.02.18 TON 05.05.05. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jan 1970
Date of First Criticality: 11 Dec 1973
Date of Grid Connection: 12 Jan 1974
Date of Commercial Operation: 01 Apr 1974

Lifetime Generation: 1740.0 GW(e).h
Cumulative Energy Availability Factor: 70.8%
Cumulative Load Factor: 59.7%
Cumulative Unit Capability Factor: 80.1%
Cumulative Energy Unavailability Factor: 29.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	45.3	10.0	88.0	88.0	88.0	88.0	68.7	68.7	5846	88.6
1975	56.5	10.0	80.2	83.6	74.4	80.2	64.5	66.3	7105	81.1
1976	55.5	10.0	90.9	86.2	83.7	81.5	63.2	65.2	7830	89.1
1977	43.7	10.0	81.4	85.0	70.4	78.5	49.9	61.1	6846	78.2
1978	53.8	10.0	91.3	86.3	91.3	81.2	61.5	61.2	7466	85.2
1979	64.8	10.0	81.2	85.4	76.0	80.3	74.0	63.4	7574	86.5
1980	59.4	10.0	81.8	84.9	74.1	79.4	67.6	64.0	8065	91.8
1981	50.7	10.0	82.0	84.5	72.7	78.5	57.9	63.2	7260	82.9
1982	72.3	10.0	85.0	84.6	85.0	79.3	82.5	65.4	7627	87.1
1983	69.9	10.0	88.7	85.0	83.3	79.7	79.8	66.9	7810	89.2
1984	77.9	10.0	88.9	85.3	88.0	80.5	88.7	68.9	7854	89.4
1985	77.7	10.0	91.2	85.8	88.4	81.1	88.7	70.6	8025	91.6
1986	73.2	10.0	86.1	85.9	83.2	81.3	83.5	71.6	7603	86.8
1987	76.7	12.0	81.3	85.5	81.3	81.3	73.0	71.7	7117	81.2
1988	79.6	11.0	90.3	85.8	90.3	82.0	82.4	72.5	7895	89.9
1989	70.9	11.0	90.0	86.1	90.0	82.5	73.5	72.6	7841	89.5
1990	76.6	11.0	85.1	86.0	85.1	82.7	79.5	73.0	7397	84.4
1991	71.6	11.0	78.6	85.6	78.6	82.4	74.3	73.1	6802	77.6
1992	67.1	11.0	85.8	85.6	85.8	82.6	69.4	72.9	7477	85.1
1993	53.2	11.0	86.3	85.7	62.7	81.6	55.2	72.0	7492	85.5
1994	49.6	11.0	86.9	85.7	86.9	81.8	51.5	70.9	7501	85.6
1995	26.6	11.0	41.6	83.6	41.6	79.9	27.6	68.8	3624	41.4
1996	29.6	11.0	54.1	82.2	54.1	78.7	30.7	67.1	4572	52.0
1997	35.2	11.0	56.5	81.1	56.5	77.7	36.6	65.7	4877	55.7
1998	55.5	11.0	96.3	81.7	67.0	77.3	57.6	65.4	8414	96.1
1999	33.4	11.0	54.9	80.7	40.3	75.8	34.7	64.1	4779	54.6
2000	58.8	11.0	87.4	80.9	68.1	75.5	60.8	64.0	7616	86.7
2001	45.9	11.0	72.9	80.6	55.0	74.7	47.6	63.4	6393	73.0
2002	49.6	11.0	84.5	80.8	60.0	74.2	51.5	63.0	7375	84.2
2003	25.8	11.0	55.8	79.9	34.1	72.8	26.8	61.7	4805	54.9
2004	34.6	11.0	85.2	80.1	46.6	71.9	35.8	60.8	7434	84.6
2005	26.2	11.0	79.8	80.1	38.5	70.8	27.2	59.7	6904	78.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					77	
C. Inspection, maintenance or repair combined with refuelling	1847			1133		
D. Inspection, maintenance or repair without refuelling				414	19	
E. Testing of plant systems or components	9			2		
J. Grid failure or grid unavailability				2	0	42
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				8	11	
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)					2	
Subtotal	1856	0	0	1559	109	42
Total	1856			1710		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		0
13. Reactor Auxiliary Systems		5
14. Safety Systems		1
15. Reactor Cooling Systems		2
31. Turbine and auxiliaries		25
32. Feedwater and Main Steam System		11
33. Circulating Water System		5
35. All other I&C Systems		3
41. Main Generator Systems		17
42. Electrical Power Supply Systems		1
Total	0	72

RU-142 BILIBINO-2

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 11.0 MW(e)
Design Net Capacity: 11.0 MW(e)
Design Discharge Burnup: 3000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 25.3 GW(e).h
Energy Availability Factor: 38.2%
Load Factor: 26.3%
Operating Factor: 83.9%
Energy Unavailability Factor: 61.8%
Total Off-line Time: 1409 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	2.5	2.3	2.3	2.2	1.1	0.0	0.5	1.2	3.4	3.3	2.9	3.6	25.3
EAF (%)	41.7	43.3	41.5	40.2	24.7	4.5	19.3	32.9	55.8	51.4	48.8	54.6	38.2
UCF (%)	100.0	99.5	100.0	100.0	60.1	4.6	56.0	100.0	100.0	100.0	99.4	100.0	84.9
LF (%)	30.3	31.1	28.7	28.2	13.9	0.0	5.5	14.7	42.9	40.4	36.3	43.9	26.3
OF (%)	100.0	98.4	100.0	100.0	58.2	0.0	52.6	100.0	100.0	100.0	98.1	100.0	83.9
EUF (%)	58.3	56.7	58.5	59.8	75.3	95.5	80.7	67.1	44.2	48.6	51.2	45.4	61.8
PUF (%)	0.0	0.5	0.0	0.0	39.9	95.5	43.7	0.0	0.0	0.0	0.6	0.0	15.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	58.3	56.2	58.5	59.8	35.4	0.0	36.7	67.1	44.2	48.6	50.7	45.4	46.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.05.19 TO 05.07.15. ONE UNIT SHUTDOWN OCCURRED DUE TO PERSONNEL ERRORS. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jan 1970
Date of First Criticality: 07 Dec 1974
Date of Grid Connection: 30 Dec 1974
Date of Commercial Operation: 01 Feb 1975

Lifetime Generation: 1675.0 GW(e).h
Cumulative Energy Availability Factor: 71.3%
Cumulative Load Factor: 58.9%
Cumulative Unit Capability Factor: 81.3%
Cumulative Energy Unavailability Factor: 28.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	62.6	10.0	94.7	94.7	89.0	89.0	78.1	78.1	7226	90.1
1976	66.1	10.0	89.4	91.9	83.7	86.2	75.3	76.6	7901	89.9
1977	57.0	10.0	90.5	91.4	81.3	84.5	65.1	72.7	7865	89.8
1978	60.6	10.0	94.8	92.3	94.8	87.2	69.2	71.8	7929	90.5
1979	69.9	10.0	92.9	92.4	88.2	87.4	79.7	73.4	8170	93.3
1980	44.0	10.0	62.7	87.4	59.8	82.7	50.1	69.5	5666	64.5
1981	41.4	10.0	73.1	85.3	70.4	80.9	47.2	66.3	6520	74.4
1982	63.9	10.0	79.2	84.6	79.2	80.7	73.0	67.1	7028	80.2
1983	73.8	10.0	90.1	85.2	86.9	81.4	84.2	69.0	7880	90.0
1984	77.6	10.0	89.3	85.6	88.5	82.1	88.4	71.0	7891	89.8
1985	78.0	10.0	90.3	86.0	88.6	82.7	89.0	72.6	7940	90.6
1986	76.3	10.0	87.0	86.1	84.7	82.9	87.1	73.8	7679	87.7
1987	88.4	12.0	89.1	86.4	89.1	83.4	84.1	74.8	7794	89.0
1988	75.1	11.0	90.8	86.7	90.8	84.0	77.7	75.0	7927	90.2
1989	74.8	11.0	91.4	87.1	91.4	84.5	77.6	75.2	7943	90.7
1990	72.6	11.0	84.6	86.9	84.6	84.5	75.4	75.2	7274	83.0
1991	57.8	11.0	64.9	85.5	64.9	83.3	60.0	74.3	4821	55.0
1992	68.2	11.0	89.9	85.8	89.9	83.7	70.6	74.0	7857	89.4
1993	52.4	11.0	81.9	85.6	62.2	82.5	54.4	72.9	7072	80.7
1994	47.8	11.0	78.7	85.2	77.3	82.2	49.6	71.7	6763	77.2
1995	45.4	11.0	99.2	85.9	97.2	83.0	47.2	70.5	8677	99.1
1996	16.8	11.0	33.5	83.4	33.5	80.6	17.4	67.9	2894	32.9
1997	44.1	11.0	92.7	83.8	87.7	80.9	45.8	66.9	8050	91.9
1998	18.2	11.0	42.9	82.0	23.3	78.4	18.8	64.8	3727	42.5
1999	54.2	11.0	84.7	82.1	64.1	77.8	56.2	64.5	7355	84.0
2000	48.5	11.0	78.2	82.0	56.3	77.0	50.2	63.9	6656	75.8
2001	56.7	11.0	85.2	82.1	65.8	76.5	58.9	63.7	7439	84.9
2002	30.0	11.0	66.4	81.5	38.4	75.1	31.2	62.5	5744	65.6
2003	33.3	11.0	82.2	81.6	44.5	74.0	34.5	61.5	7162	81.8
2004	17.9	11.0	70.3	81.2	27.2	72.4	18.5	60.0	5851	66.6
2005	25.3	11.0	84.9	81.3	38.2	71.3	26.3	58.9	7351	83.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		6			140	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	1370			1298	96	
D. Inspection, maintenance or repair without refuelling				152		
E. Testing of plant systems or components	33			2		
J. Grid failure or grid unavailability					0	18
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				6		
Subtotal	1403	6	0	1458	240	18
Total	1409			1716		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		82
12. Reactor I&C Systems	6	2
14. Safety Systems		0
15. Reactor Cooling Systems		8
31. Turbine and auxiliaries		24
32. Feedwater and Main Steam System		9
33. Circulating Water System		0
41. Main Generator Systems		8
Total	6	133

RU-143 BILIBINO-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power
at the beginning of 2005: 11.0 MW(e)
Design Net Capacity: 11.0 MW(e)
Design Discharge Burnup: 3000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 20.4 GW(e).h
Energy Availability Factor: 30.9%
Load Factor: 21.1%
Operating Factor: 69.7%
Energy Unavailability Factor: 69.1%
Total Off-line Time: 2658 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	2.5	2.7	3.1	2.4	1.5	2.5	1.2	0.0	0.0	0.0	1.9	2.6	20.4
EAF (%)	41.1	47.3	48.6	41.7	30.1	43.3	25.4	4.5	4.5	8.3	33.2	43.8	30.9
UCF (%)	100.0	100.0	99.8	100.0	70.7	100.0	58.3	4.6	4.6	19.0	100.0	99.7	71.1
LF (%)	30.5	37.1	37.4	30.3	18.9	31.3	14.5	0.0	0.0	0.0	23.4	31.9	21.1
OF (%)	100.0	100.0	99.5	100.0	69.4	100.0	56.3	0.0	0.0	15.2	100.0	99.2	69.7
EUF (%)	58.9	52.7	51.4	58.3	69.9	56.7	74.6	95.5	95.5	91.7	66.8	56.2	69.1
PUF (%)	0.0	0.0	0.2	0.0	29.3	0.0	41.7	95.5	95.5	81.0	0.0	0.3	28.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	58.9	52.7	51.2	58.3	40.6	56.7	32.9	0.0	0.0	10.7	66.8	55.9	40.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.07.18 TON 05.10.27. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jan 1970
Date of First Criticality: 06 Dec 1975
Date of Grid Connection: 22 Dec 1975
Date of Commercial Operation: 01 Feb 1976

Lifetime Generation: 1669.0 GW(e).h
Cumulative Energy Availability Factor: 70.4%
Cumulative Load Factor: 60.8%
Cumulative Unit Capability Factor: 81.2%
Cumulative Energy Unavailability Factor: 29.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	50.0	10.0	90.5	90.5	83.3	83.3	62.2	62.2	6222	77.4
1977	46.5	10.0	92.8	91.7	78.2	80.7	53.1	57.4	7533	86.0
1978	61.9	10.0	86.2	89.9	86.2	82.6	70.6	62.0	7514	85.8
1979	62.1	10.0	88.9	89.6	82.5	82.5	70.9	64.2	7837	89.5
1980	79.4	10.0	92.2	90.1	91.0	84.3	90.4	69.6	8130	92.6
1981	89.8	10.0	96.6	91.2	96.6	86.4	102.5	75.1	8480	96.8
1982	79.3	10.0	94.8	91.8	94.8	87.6	90.6	77.4	8323	95.0
1983	72.8	10.0	88.8	91.4	85.3	87.3	83.1	78.1	7782	88.8
1984	76.5	10.0	89.1	91.1	87.4	87.3	87.1	79.1	7876	89.7
1985	69.8	10.0	80.3	90.1	78.5	86.4	79.7	79.2	7119	81.3
1986	77.1	10.0	91.0	90.1	87.7	86.5	88.0	80.0	8001	91.3
1987	89.1	12.0	89.1	90.0	89.1	86.8	84.7	80.4	7801	89.1
1988	76.7	11.0	89.5	90.0	89.5	87.0	79.4	80.4	7815	89.0
1989	74.3	11.0	89.5	89.9	89.1	87.2	77.1	80.1	7756	88.5
1990	73.7	11.0	92.0	90.1	91.1	87.4	76.5	79.9	8024	91.6
1991	66.2	11.0	78.1	89.3	76.6	86.7	68.7	79.1	6749	77.0
1992	70.9	11.0	88.5	89.2	79.7	86.3	73.4	78.8	7727	88.0
1993	52.6	11.0	83.2	88.9	61.5	84.8	54.6	77.3	7218	82.4
1994	44.7	11.0	73.7	88.0	72.0	84.1	46.4	75.6	6342	72.4
1995	17.3	11.0	38.2	85.4	34.9	81.5	17.9	72.6	3293	37.6
1996	52.6	11.0	82.3	85.3	82.3	81.6	54.5	71.7	7142	81.3
1997	25.8	11.0	42.9	83.3	42.9	79.7	26.8	69.5	3769	43.0
1998	23.2	11.0	49.1	81.7	29.1	77.4	24.0	67.5	4200	47.9
1999	51.4	11.0	75.9	81.4	59.9	76.7	53.4	66.9	6607	75.4
2000	45.2	11.0	86.8	81.7	54.8	75.8	46.8	66.0	7569	86.2
2001	53.9	11.0	84.9	81.8	63.0	75.2	56.0	65.6	7383	84.3
2002	30.7	11.0	71.5	81.4	39.4	73.9	31.9	64.3	6250	71.3
2003	35.4	11.0	81.5	81.4	46.7	72.9	36.8	63.3	7097	81.0
2004	31.1	11.0	85.8	81.6	42.0	71.8	32.2	62.2	7166	81.6
2005	20.4	11.0	71.1	81.2	30.9	70.4	21.1	60.8	6102	69.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					68	
C. Inspection, maintenance or repair combined with refuelling	2654			1140		
D. Inspection, maintenance or repair without refuelling				377		
E. Testing of plant systems or components	4			6		
J. Grid failure or grid unavailability					1	51
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				16	1	9
Subtotal	2658	0	0	1539	70	60
Total	2658			1669		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		1
15. Reactor Cooling Systems		19
31. Turbine and auxiliaries		15
32. Feedwater and Main Steam System		10
33. Circulating Water System		0
Total	0	45

RU-144 BILIBINO-4

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 11.0 MW(e)
Design Net Capacity: 11.0 MW(e)
Design Discharge Burnup: 3000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 24.9 GW(e).h
Energy Availability Factor: 36.3%
Load Factor: 25.9%
Operating Factor: 83.3%
Energy Unavailability Factor: 63.7%
Total Off-line Time: 1460 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	2.1	2.5	3.3	2.6	2.1	1.8	2.1	2.7	2.9	2.6	0.0	0.5	24.9
EAF (%)	36.5	43.4	49.3	44.1	36.5	35.1	36.6	43.5	48.7	42.1	4.5	15.5	36.3
UCF (%)	99.4	100.0	100.0	100.0	79.8	100.0	100.0	100.0	99.5	93.9	4.6	35.1	84.3
LF (%)	25.2	33.5	40.2	33.3	25.1	22.4	25.6	32.5	36.4	31.3	0.0	5.7	25.9
OF (%)	97.8	100.0	100.0	100.0	78.8	100.0	100.0	100.0	98.2	93.7	0.0	32.0	83.3
EUF (%)	63.5	56.6	50.7	55.9	63.5	64.9	63.4	56.5	51.3	57.9	95.5	84.5	63.7
PUF (%)	0.6	0.0	0.0	0.0	20.2	0.0	0.0	0.0	0.5	6.1	95.5	64.9	15.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	62.9	56.6	50.7	55.9	43.3	64.9	63.4	56.5	50.8	51.8	0.0	19.6	48.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.10.30 TO 05.12.22. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Jan 1970	Lifetime Generation:	1556.0 GW(e).h
Date of First Criticality:	12 Dec 1976	Cumulative Energy Availability Factor:	68.7%
Date of Grid Connection:	27 Dec 1976	Cumulative Load Factor:	59.6%
Date of Commercial Operation:	01 Jan 1977	Cumulative Unit Capability Factor:	78.7%
		Cumulative Energy Unavailability Factor:	31.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	52.6	10.0	93.6	93.6	82.9	82.9	60.1	60.1	7392	84.4
1978	58.3	10.0	91.1	92.3	91.1	87.0	66.6	63.3	7827	89.3
1979	74.5	10.0	85.5	90.0	83.9	85.9	85.0	70.5	7552	86.2
1980	77.6	10.0	94.8	91.2	92.9	87.7	88.4	75.0	8347	95.0
1981	78.3	10.0	87.7	90.5	86.6	87.5	89.3	77.9	7734	88.3
1982	77.6	10.0	90.7	90.6	90.7	88.0	88.6	79.7	7976	91.1
1983	75.5	10.0	90.0	90.5	86.9	87.9	86.2	80.6	7923	90.4
1984	79.0	10.0	87.6	90.1	86.8	87.7	89.9	81.8	7744	88.2
1985	81.2	10.0	90.3	90.1	89.5	87.9	92.7	83.0	7919	90.4
1986	74.5	10.0	79.9	89.1	79.8	87.1	85.1	83.2	7083	80.9
1987	95.5	12.0	93.3	89.6	93.3	87.8	90.9	84.0	8154	93.1
1988	75.8	11.0	87.3	89.4	87.3	87.7	78.5	83.5	7617	86.7
1989	71.4	11.0	93.2	89.7	93.2	88.2	74.1	82.7	7853	89.6
1990	75.3	11.0	87.2	89.5	86.4	88.0	78.1	82.4	7588	86.6
1991	61.3	11.0	71.4	88.2	69.9	86.8	63.6	81.1	6139	70.1
1992	69.8	11.0	87.8	88.2	87.8	86.8	72.3	80.5	7756	88.3
1993	56.0	11.0	80.2	87.7	64.4	85.4	58.1	79.1	6918	79.0
1994	38.5	11.0	62.0	86.2	61.8	84.1	39.9	76.8	5266	60.1
1995	29.9	11.0	63.9	85.0	62.7	82.9	31.0	74.3	5083	58.0
1996	35.2	11.0	59.1	83.6	59.1	81.7	36.4	72.3	5109	58.2
1997	15.1	11.0	37.0	81.3	28.4	79.0	15.7	69.5	2490	28.4
1998	37.3	11.0	63.1	80.5	44.5	77.4	38.7	68.1	5510	62.9
1999	28.7	11.0	46.7	78.9	34.8	75.5	29.8	66.4	3993	45.6
2000	55.8	11.0	88.7	79.4	64.2	75.0	57.8	66.0	7740	88.1
2001	35.4	11.0	68.0	78.9	43.2	73.7	36.8	64.8	5931	67.7
2002	33.1	11.0	73.8	78.7	46.3	72.6	34.4	63.6	6419	73.3
2003	24.5	11.0	67.5	78.3	34.0	71.1	25.4	62.1	5849	66.8
2004	26.1	11.0	83.9	78.5	36.7	69.8	27.0	60.8	7303	83.1
2005	24.9	11.0	84.3	78.7	36.3	68.7	25.9	59.6	7300	83.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					63	
C. Inspection, maintenance or repair combined with refuelling	1431			1342		
D. Inspection, maintenance or repair without refuelling				477		
E. Testing of plant systems or components	29			6		
J. Grid failure or grid unavailability						80
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	
Subtotal	1460	0	0	1825	64	80
Total	1460			1969		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		15
13. Reactor Auxiliary Systems		9
15. Reactor Cooling Systems		1
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		6
33. Circulating Water System		6
41. Main Generator Systems		20
Total	0	61

RU-30 KALININ-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6836.3 GW(e).h
Energy Availability Factor: 80.4%
Load Factor: 82.1%
Operating Factor: 82.4%
Energy Unavailability Factor: 19.6%
Total Off-line Time: 1542 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	734.3	661.7	728.5	704.9	711.6	698.3	508.7	0.0	160.1	731.0	557.8	639.3	6836.3
EAF (%)	100.0	100.0	100.0	100.0	99.0	99.8	71.0	0.0	25.1	99.9	81.0	90.3	80.4
UCF (%)	100.0	100.0	100.0	100.0	99.0	100.0	71.2	0.0	27.0	100.0	83.6	98.4	81.5
LF (%)	103.9	103.6	103.1	103.1	100.7	102.1	72.0	0.0	23.4	103.3	81.5	90.4	82.1
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	71.6	0.0	35.7	100.0	83.8	99.2	82.4
EUF (%)	0.0	0.0	0.0	0.0	1.0	0.2	29.0	100.0	74.9	0.1	19.0	9.7	19.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	28.8	100.0	33.8	0.0	0.0	0.0	13.7
UCLF (%)	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	39.1	0.0	16.5	1.6	4.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	2.0	0.1	2.6	8.1	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 131562 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.07.23 TO 05.09.10. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Feb 1977	Lifetime Generation:	124728.0 GW(e).h
Date of First Criticality:	10 Apr 1984	Cumulative Energy Availability Factor:	70.3%
Date of Grid Connection:	09 May 1984	Cumulative Load Factor:	71.0%
Date of Commercial Operation:	12 Jun 1985	Cumulative Unit Capability Factor:	71.4%
		Cumulative Energy Unavailability Factor:	29.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	2799.6	950.0	58.3	58.3	58.3	58.3	57.4	57.4	3101	60.4
1986	5297.7	950.0	62.8	61.2	62.8	61.2	63.7	61.3	5946	67.9
1987	6842.5	1000.0	78.7	68.2	78.7	68.2	78.1	68.0	6972	79.6
1988	5891.6	950.0	70.1	68.7	70.1	68.7	70.6	68.7	6187	70.4
1989	6129.7	950.0	71.9	69.4	71.9	69.4	73.7	69.8	6396	73.0
1990	5192.3	950.0	61.6	68.0	61.5	68.0	62.4	68.5	5435	62.0
1991	6482.7	950.0	78.1	69.5	77.1	69.4	77.9	69.9	7161	81.7
1992	6781.4	950.0	80.4	70.9	80.3	70.8	81.3	71.4	7388	84.1
1993	4927.2	950.0	66.6	70.4	59.4	69.5	59.2	70.0	6133	70.0
1994	4437.6	950.0	54.4	68.8	54.1	67.9	53.3	68.3	5440	62.1
1995	4699.0	950.0	57.0	67.7	56.8	66.8	56.5	67.1	6265	71.5
1996	4431.7	950.0	53.3	66.4	53.2	65.7	53.1	65.9	5628	64.1
1997	5197.1	950.0	65.0	66.3	63.2	65.5	62.4	65.7	6195	70.7
1998	6101.0	950.0	73.3	66.8	73.0	66.0	73.3	66.2	6937	79.2
1999	5775.1	950.0	73.1	67.3	69.3	66.3	69.4	66.4	6589	75.2
2000	6289.7	950.0	76.8	67.9	75.0	66.8	75.4	67.0	6784	77.2
2001	6627.5	950.0	79.4	68.6	78.2	67.5	79.6	67.8	7020	80.1
2002	7248.4	950.0	86.1	69.6	84.7	68.5	87.1	68.9	7568	86.4
2003	7155.9	950.0	83.7	70.3	83.1	69.3	86.0	69.8	7408	84.6
2004	6937.0	950.0	81.5	70.9	80.7	69.8	83.1	70.5	7179	81.7
2005	6836.3	950.0	81.5	71.4	80.4	70.3	82.1	71.0	7219	82.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		259			275	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	1195	87		1582	42	
D. Inspection, maintenance or repair without refuelling				120		
E. Testing of plant systems or components					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					60	
Subtotal	1195	346	0	1702	383	0
Total		1541			2085	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	123	8
12. Reactor I&C Systems		2
15. Reactor Cooling Systems		3
16. Steam generation systems		42
17. Safety I&C Systems (excluding reactor I&C)		5
31. Turbine and auxiliaries		39
32. Feedwater and Main Steam System		29
35. All other I&C Systems		9
41. Main Generator Systems	136	117
42. Electrical Power Supply Systems		10
Total	259	264

RU-31 KALININ-2

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6116.3 GW(e).h
Energy Availability Factor: 72.1%
Load Factor: 73.5%
Operating Factor: 73.9%
Energy Unavailability Factor: 27.9%
Total Off-line Time: 2285 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	620.6	659.0	566.0	512.7	0.0	188.8	726.9	728.2	482.1	734.3	676.7	221.0	6116.3
EAF (%)	86.6	100.0	78.6	73.3	0.0	28.7	99.9	100.0	70.8	100.0	97.3	32.1	72.1
UCF (%)	100.0	100.0	78.6	73.9	0.0	28.9	100.0	100.0	70.8	100.0	100.0	33.1	73.6
LF (%)	87.8	103.2	80.1	75.0	0.0	27.6	102.8	103.0	70.5	103.7	98.9	31.3	73.5
OF (%)	100.0	100.0	79.3	74.3	0.0	29.6	100.0	100.0	71.3	100.0	100.0	34.4	73.9
EUf (%)	13.4	0.0	21.4	26.7	100.0	71.3	0.1	0.0	29.2	0.0	2.7	67.9	27.9
PUF (%)	0.0	0.0	0.0	26.1	100.0	71.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5
UCLF (%)	0.0	0.0	21.4	0.0	0.0	0.1	0.0	0.0	29.2	0.0	0.0	66.9	9.9
XUF (%)	13.4	0.0	0.0	0.5	0.0	0.2	0.1	0.0	0.0	0.0	2.7	1.0	1.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 116846 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.04.23 TO 05.06.22. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Feb 1982
Date of First Criticality: 25 Nov 1986
Date of Grid Connection: 03 Dec 1986
Date of Commercial Operation: 03 Mar 1987

Lifetime Generation: 112542.0 GW(e).h
Cumulative Energy Availability Factor: 69.8%
Cumulative Load Factor: 71.3%
Cumulative Unit Capability Factor: 73.3%
Cumulative Energy Unavailability Factor: 30.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	5815.1	1000.0	86.3	86.3	86.3	86.3	79.2	79.2	6460	88.0
1988	5829.4	950.0	71.7	78.5	71.7	78.5	69.9	74.2	6446	73.4
1989	6580.5	950.0	78.5	78.5	78.5	78.5	79.1	75.9	7034	80.3
1990	6788.2	950.0	79.5	78.7	79.5	78.7	81.6	77.4	7083	80.9
1991	4729.7	950.0	49.8	72.8	49.8	72.8	56.8	73.2	5154	58.8
1992	5496.3	950.0	65.7	71.6	65.7	71.6	65.9	71.9	6145	70.0
1993	5862.3	950.0	58.1	69.6	51.9	68.7	70.4	71.7	7078	80.8
1994	4463.8	950.0	54.9	67.8	54.9	67.0	53.6	69.4	6989	79.8
1995	5769.7	950.0	72.4	68.3	69.5	67.3	69.3	69.4	7283	83.1
1996	4595.2	950.0	78.4	69.3	56.0	66.1	55.1	68.0	7501	85.4
1997	3880.6	950.0	62.7	68.7	47.3	64.4	46.6	66.0	6117	69.8
1998	4946.7	950.0	60.0	68.0	59.7	64.0	59.4	65.4	6839	78.1
1999	6379.3	950.0	80.0	68.9	76.2	64.9	76.7	66.3	7155	81.7
2000	6418.7	950.0	83.6	70.0	76.3	65.8	76.9	67.1	7441	84.7
2001	6709.0	950.0	80.0	70.6	79.2	66.7	80.6	68.0	7070	80.7
2002	7003.4	950.0	85.8	71.6	82.7	67.7	84.2	69.0	7554	86.2
2003	7329.5	950.0	85.9	72.4	85.3	68.7	88.1	70.1	7541	86.1
2004	7398.2	950.0	87.1	73.3	86.7	69.7	88.7	71.2	7674	87.4
2005	6116.3	950.0	73.6	73.3	72.1	69.8	73.5	71.3	6476	73.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		848			191	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	1436			1330	11	
D. Inspection, maintenance or repair without refuelling				103		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					4	
Z. Others					1	
Subtotal	1436	848	0	1433	222	0
Total		2284			1655	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		6
12. Reactor I&C Systems	207	7
15. Reactor Cooling Systems	204	34
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		49
32. Feedwater and Main Steam System		5
35. All other I&C Systems	153	3
41. Main Generator Systems	284	65
42. Electrical Power Supply Systems		2
XX. Miscellaneous Systems		2
Total	848	175

RU-36 KALININ-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1402.5 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 100.8%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h											685.2	717.3	1402.5
EAF (%)											100.0	100.0	100.0
UCF (%)											100.0	100.0	100.0
LF (%)											100.2	101.5	100.8
OF (%)											100.0	100.0	100.0
EUF (%)											0.0	0.0	0.0
PUF (%)											0.0	0.0	0.0
UCLF (%)											0.0	0.0	0.0
XUF (%)											0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 11518 MWH. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Oct 1985
Date of First Criticality: 26 Nov 2004
Date of Grid Connection: 16 Dec 2004
Date of Commercial Operation: 08 Nov 2005

Lifetime Generation: 4353.0 GW(e).h
Cumulative Energy Availability Factor: 100.0%
Cumulative Load Factor: 100.8%
Cumulative Unit Capability Factor: 100.0%
Cumulative Energy Unavailability Factor: 0.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2005	1402.5	950.0	100.0	100.0	100.0	100.0	100.8	100.8	1464	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2005 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External

The reactor has not yet completed a full year of commercial operation.

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2005 to 2005 Average Hours Lost Per Year

The reactor has not yet completed a full year of commercial operation.

RU-12 KOLA-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 411.0 MW(e)
Design Net Capacity: 411.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2151.7 GW(e).h
Energy Availability Factor: 60.6%
Load Factor: 59.8%
Operating Factor: 78.8%
Energy Unavailability Factor: 39.4%
Total Off-line Time: 1859 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	306.0	274.0	281.2	115.2	0.0	29.4	150.1	180.3	262.5	103.5	161.7	288.0	2151.7
EAF (%)	100.0	99.2	92.4	40.5	0.0	11.6	50.8	60.2	88.9	35.3	56.2	94.4	60.6
UCF (%)	100.0	100.0	100.0	90.0	0.0	98.6	100.0	100.0	100.0	100.0	99.9	100.0	90.6
LF (%)	100.1	99.2	92.0	38.9	0.0	9.9	49.1	59.0	88.7	33.8	54.6	94.2	59.8
OF (%)	100.0	100.0	99.9	76.9	0.0	24.0	100.0	83.3	100.0	62.9	99.9	100.0	78.8
EUF (%)	0.0	0.8	7.6	59.5	100.0	88.4	49.2	39.8	11.1	64.7	43.8	5.6	39.4
PUF (%)	0.0	0.0	0.0	10.0	100.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	9.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
XUF (%)	0.0	0.8	7.6	49.5	0.0	87.0	49.2	39.8	11.1	64.7	43.8	5.6	30.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.04.28 TO 05.06.01. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 May 1970	Lifetime Generation:	75867.0 GW(e).h
Date of First Criticality:	26 Jun 1973	Cumulative Energy Availability Factor:	69.4%
Date of Grid Connection:	29 Jun 1973	Cumulative Load Factor:	65.0%
Date of Commercial Operation:	28 Dec 1973	Cumulative Unit Capability Factor:	75.7%
		Cumulative Energy Unavailability Factor:	30.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	232.3	411.0	100.0	100.0	100.0	100.0	76.0	76.0	744	100.0
1974	1990.1	411.0	79.2	80.9	79.2	80.8	55.3	56.9	8463	96.6
1975	1015.8	411.0	50.9	66.5	50.9	66.5	28.2	43.1	5426	61.9
1976	2421.7	411.0	74.2	69.0	74.1	68.9	67.1	50.9	8247	93.9
1977	2101.1	411.0	76.4	70.8	76.4	70.8	58.4	52.7	7462	85.2
1978	2978.8	411.0	82.6	73.1	82.6	73.1	82.7	58.6	8074	92.2
1979	2435.6	411.0	64.6	71.7	64.6	71.7	67.6	60.1	6232	71.1
1980	3466.4	411.0	91.1	74.5	90.9	74.4	96.0	65.2	8072	91.9
1981	2870.8	411.0	81.0	75.3	80.9	75.2	79.7	67.0	7448	85.0
1982	2848.1	411.0	85.5	76.4	85.5	76.4	79.1	68.3	7875	89.9
1983	3217.4	411.0	88.3	77.6	88.2	77.5	89.4	70.4	7884	90.0
1984	3112.0	411.0	84.9	78.2	84.9	78.2	86.2	71.8	8060	91.8
1985	2388.8	411.0	67.0	77.3	67.0	77.3	66.3	71.4	6001	68.5
1986	2805.8	411.0	85.1	77.9	85.1	77.9	77.9	71.9	8074	92.2
1987	3268.2	440.0	86.0	78.5	86.0	78.5	84.8	72.9	7972	91.0
1988	2925.0	411.0	82.7	78.8	82.7	78.8	81.0	73.4	7482	85.2
1989	2675.5	411.0	76.2	78.6	75.4	78.6	74.3	73.5	6731	76.8
1990	2735.5	411.0	76.0	78.5	76.0	78.4	76.0	73.6	6838	78.1
1991	2773.1	411.0	77.3	78.4	77.3	78.3	77.0	73.8	6965	79.5
1992	2271.4	411.0	63.7	77.6	63.4	77.6	62.9	73.2	6651	75.7
1993	1992.6	411.0	59.6	76.7	56.1	76.5	55.3	72.3	5663	64.6
1994	1971.6	411.0	58.6	75.9	56.5	75.6	54.8	71.5	5359	61.2
1995	1581.4	411.0	62.2	75.3	62.2	75.0	43.9	70.3	5398	61.6
1996	1410.0	411.0	47.4	74.1	46.4	73.7	39.1	68.9	4466	50.8
1997	2404.1	411.0	88.5	74.7	88.5	74.3	66.8	68.8	7942	90.7
1998	1291.7	411.0	59.3	74.1	37.7	72.9	35.9	67.5	5658	64.6
1999	2028.5	411.0	86.6	74.5	58.0	72.3	56.3	67.1	7355	84.0
2000	1298.8	411.0	84.1	74.9	37.2	71.0	36.0	65.9	4643	52.9
2001	2243.2	411.0	81.6	75.1	63.3	70.7	62.3	65.8	7098	81.0
2002	1841.5	411.0	68.9	74.9	51.7	70.1	51.1	65.3	5660	64.6
2003	2164.0	411.0	75.5	74.9	60.4	69.8	60.1	65.1	6444	73.6
2004	2440.5	411.0	83.6	75.2	68.2	69.7	67.6	65.2	7326	83.4
2005	2151.7	411.0	90.6	75.7	60.6	69.4	59.8	65.0	6901	78.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					64	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	826			1363	4	
D. Inspection, maintenance or repair without refuelling				198		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				81		
G. Major back-fitting, refurbishment or upgrading activities without refuelling						6
J. Grid failure or grid unavailability			1109			143
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					12	2
Subtotal	826	0	1109	1642	81	151
Total	1935			1874		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		5
13. Reactor Auxiliary Systems		5
15. Reactor Cooling Systems		17
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		9
35. All other I&C Systems		1
42. Electrical Power Supply Systems		1
Total	0	41

RU-13 KOLA-2

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 411.0 MW(e)
Design Net Capacity: 411.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2889.2 GW(e).h
Energy Availability Factor: 78.6%
Load Factor: 80.2%
Operating Factor: 84.2%
Energy Unavailability Factor: 21.4%
Total Off-line Time: 1381 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	190.3	285.9	280.0	303.3	315.1	297.6	302.3	97.9	0.0	180.0	313.5	323.2	2889.2
EAF (%)	63.0	100.0	91.4	100.0	100.0	99.9	98.5	32.2	0.0	59.7	100.0	100.0	78.6
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	35.2	0.0	76.0	100.0	100.0	84.2
LF (%)	62.2	103.5	91.6	102.5	103.1	100.6	98.9	32.0	0.0	58.9	105.9	105.7	80.2
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	35.2	0.0	76.1	100.0	100.0	84.2
EUF (%)	37.0	0.0	8.6	0.0	0.0	0.1	1.5	67.8	100.0	40.3	0.0	0.0	21.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.8	100.0	24.0	0.0	0.0	15.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	37.0	0.0	8.6	0.0	0.0	0.1	1.5	3.0	0.0	16.4	0.0	0.0	5.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN FEBRUARY, APRIL, MAY, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 49612 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.08.11 TO 05.10.08. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jan 1973
Date of First Criticality: 30 Nov 1974
Date of Grid Connection: 09 Dec 1974
Date of Commercial Operation: 21 Feb 1975

Lifetime Generation: 73227.0 GW(e).h
Cumulative Energy Availability Factor: 70.0%
Cumulative Load Factor: 65.7%
Cumulative Unit Capability Factor: 75.7%
Cumulative Energy Unavailability Factor: 30.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	1325.2	411.0	88.2	88.2	88.2	88.2	40.2	40.2	6040	75.3
1976	1943.1	411.0	70.8	79.1	70.8	79.1	53.8	47.3	7083	80.6
1977	2627.2	411.0	77.1	78.4	76.9	78.4	73.0	56.1	7038	80.3
1978	2982.5	411.0	82.7	79.5	82.7	79.5	82.8	62.9	7576	86.5
1979	3057.6	411.0	83.5	80.3	82.4	80.1	84.9	67.4	7663	87.5
1980	3266.9	411.0	86.0	81.3	85.8	81.0	90.5	71.3	7966	90.7
1981	3146.7	411.0	87.8	82.2	87.8	82.0	87.4	73.6	8225	93.9
1982	2463.0	411.0	71.2	80.8	71.2	80.7	68.4	73.0	6742	77.0
1983	3072.6	411.0	85.3	81.3	85.3	81.2	85.3	74.4	7963	90.9
1984	3034.5	411.0	86.8	81.9	86.8	81.7	84.1	75.3	8079	92.0
1985	3055.6	411.0	84.9	82.2	84.9	82.0	84.9	76.2	7872	89.9
1986	2844.2	411.0	79.8	82.0	79.7	81.8	79.0	76.5	7405	84.5
1987	3345.4	440.0	89.6	82.6	89.6	82.5	86.8	77.3	7900	90.2
1988	2873.3	411.0	80.5	82.4	80.5	82.3	79.6	77.5	7451	84.8
1989	2707.3	411.0	78.0	82.1	74.8	81.8	75.2	77.3	6859	78.3
1990	2610.9	411.0	72.9	81.6	72.7	81.3	72.5	77.0	6751	77.1
1991	2701.9	411.0	75.4	81.2	75.3	80.9	75.0	76.9	6983	79.7
1992	2133.0	411.0	61.8	80.1	61.8	79.8	59.1	75.9	5871	66.8
1993	2138.8	411.0	65.7	79.4	60.7	78.8	59.4	75.0	6377	72.8
1994	398.6	411.0	16.7	76.2	16.7	75.7	11.1	71.8	1466	16.7
1995	2205.8	411.0	93.6	77.1	93.6	76.6	61.3	71.3	6846	78.2
1996	1946.2	411.0	66.3	76.6	65.5	76.1	53.9	70.5	6243	71.1
1997	1157.9	411.0	53.4	75.6	40.6	74.5	32.2	68.9	3955	45.1
1998	2655.6	411.0	83.6	75.9	74.5	74.5	73.8	69.1	8029	91.7
1999	1272.6	411.0	49.0	74.8	36.3	73.0	35.3	67.7	4423	50.5
2000	2430.5	411.0	83.4	75.2	68.2	72.8	67.3	67.7	7626	86.8
2001	1722.3	411.0	84.7	75.5	49.1	71.9	47.8	67.0	6574	75.0
2002	1738.7	411.0	83.2	75.8	48.7	71.1	48.3	66.3	5564	63.5
2003	1866.1	411.0	66.4	75.5	52.0	70.4	51.8	65.8	5459	62.3
2004	1787.1	411.0	73.8	75.4	49.9	69.8	49.5	65.3	5731	65.2
2005	2889.2	411.0	84.2	75.7	78.6	70.0	80.2	65.7	7379	84.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					94	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1381			1401		
D. Inspection, maintenance or repair without refuelling				80		
E. Testing of plant systems or components				10		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				158		
J. Grid failure or grid unavailability						184
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	27
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					0	
Subtotal	1381	0	0	1649	94	211
Total		1381			1954	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		54
12. Reactor I&C Systems		1
13. Reactor Auxiliary Systems		3
14. Safety Systems		3
15. Reactor Cooling Systems		23
16. Steam generation systems		4
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		0
32. Feedwater and Main Steam System		0
35. All other I&C Systems		0
41. Main Generator Systems		0
42. Electrical Power Supply Systems		0
Total	0	88

RU-32 KOLA-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 411.0 MW(e)
Design Net Capacity: 411.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2059.4 GW(e).h
Energy Availability Factor: 57.6%
Load Factor: 57.2%
Operating Factor: 87.6%
Energy Unavailability Factor: 42.4%
Total Off-line Time: 1089 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	280.5	139.5	218.1	290.0	279.0	87.0	0.0	118.2	206.5	171.6	131.7	137.4	2059.4
EAF (%)	91.1	51.4	71.6	97.2	90.8	30.6	0.0	40.2	69.9	56.7	45.7	46.2	57.6
UCF (%)	100.0	100.0	100.0	100.0	100.0	83.3	0.0	80.6	100.0	100.0	100.0	100.0	88.5
LF (%)	91.7	50.5	71.3	98.0	91.2	29.4	0.0	38.6	69.8	56.1	44.5	44.9	57.2
OF (%)	100.0	100.0	99.9	100.0	100.0	62.4	0.0	90.2	100.0	100.0	100.0	100.0	87.6
EUF (%)	8.9	48.6	28.4	2.8	9.2	69.4	100.0	59.8	30.1	43.3	54.3	53.8	42.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	16.7	100.0	19.4	0.0	0.0	0.0	0.0	11.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	8.9	48.6	28.4	2.8	9.2	52.7	0.0	40.4	30.1	43.3	54.3	53.8	30.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.07.01 TO 05.08.04. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Apr 1977	Lifetime Generation:	62892.0 GW(e).h
Date of First Criticality:	07 Feb 1981	Cumulative Energy Availability Factor:	75.3%
Date of Grid Connection:	24 Mar 1981	Cumulative Load Factor:	72.7%
Date of Commercial Operation:	03 Dec 1982	Cumulative Unit Capability Factor:	82.5%
		Cumulative Energy Unavailability Factor:	24.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	301.9	411.0	99.4	99.4	99.3	99.3	98.7	98.7	744	100.0
1983	2459.9	411.0	72.0	74.1	72.0	74.1	68.3	70.7	6818	77.8
1984	2830.7	411.0	82.7	78.3	82.7	78.2	78.4	74.4	7610	86.6
1985	2972.6	411.0	86.8	81.0	86.7	81.0	82.6	77.0	7814	89.2
1986	2627.3	411.0	74.1	79.3	74.1	79.3	73.0	76.0	7244	82.7
1987	2837.8	440.0	74.8	78.4	74.8	78.4	73.6	75.5	7024	80.2
1988	2933.2	411.0	81.5	78.9	81.4	78.9	81.2	76.5	7913	90.1
1989	3186.7	411.0	90.5	80.5	87.8	80.1	88.5	78.2	8047	91.9
1990	3256.9	411.0	89.8	81.6	89.7	81.3	90.5	79.7	8022	91.6
1991	2935.2	411.0	79.8	81.4	79.8	81.1	81.5	79.9	7188	82.1
1992	2806.4	411.0	87.9	82.1	87.8	81.8	77.7	79.7	7396	84.2
1993	2548.0	411.0	81.9	82.1	70.5	80.8	70.8	78.9	6833	78.0
1994	2466.0	411.0	70.9	81.2	70.8	79.9	68.5	78.0	6373	72.8
1995	2526.1	411.0	81.0	81.1	80.6	80.0	70.2	77.4	7083	80.9
1996	2327.3	411.0	79.8	81.0	79.8	80.0	64.5	76.5	6928	78.9
1997	2340.5	411.0	78.5	80.9	75.0	79.7	65.0	75.7	7114	81.2
1998	2006.3	411.0	86.3	81.2	56.3	78.2	55.7	74.5	6705	76.5
1999	2140.6	411.0	72.6	80.7	59.9	77.1	59.5	73.6	7040	80.4
2000	2244.7	411.0	87.9	81.1	62.5	76.3	62.2	73.0	7731	88.0
2001	2543.3	411.0	85.3	81.3	70.6	76.0	70.6	72.9	7057	80.6
2002	2742.4	411.0	91.4	81.8	75.9	76.0	76.2	73.0	7909	90.3
2003	2740.7	411.0	83.7	81.9	75.6	76.0	76.1	73.2	7335	83.7
2004	2816.8	411.0	88.1	82.2	77.4	76.1	78.0	73.4	7688	87.5
2005	2059.4	411.0	88.5	82.5	57.6	75.3	57.2	72.7	7672	87.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					77	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	817			1035		
D. Inspection, maintenance or repair without refuelling	199			91		
E. Testing of plant systems or components				16	1	
J. Grid failure or grid unavailability			73		16	95
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	8
L. Human factor related					1	
Subtotal	1016	0	73	1142	100	103
Total		1089			1345	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems		37
15. Reactor Cooling Systems		8
16. Steam generation systems		9
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		0
32. Feedwater and Main Steam System		7
42. Electrical Power Supply Systems		5
XX. Miscellaneous Systems		0
Total	0	73

RU-33 KOLA-4

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 411.0 MW(e)
Design Net Capacity: 411.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2231.7 GW(e).h
Energy Availability Factor: 62.1%
Load Factor: 62.0%
Operating Factor: 89.9%
Energy Unavailability Factor: 37.9%
Total Off-line Time: 882 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	131.6	133.8	82.1	38.4	151.1	165.0	149.1	246.0	299.9	293.8	291.7	249.3	2231.7
EAF (%)	44.2	49.3	27.8	13.5	49.9	56.2	49.5	80.0	100.0	95.1	97.5	81.4	62.1
UCF (%)	100.0	100.0	58.1	24.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.2
LF (%)	43.0	48.4	26.8	13.0	49.4	55.8	48.8	80.4	101.3	95.9	98.6	81.5	62.0
OF (%)	100.0	100.0	55.0	24.2	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	89.9
EUF (%)	55.8	50.7	72.2	86.5	50.1	43.8	50.5	20.0	0.0	4.9	2.5	18.6	37.9
PUF (%)	0.0	0.0	41.9	75.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	55.8	50.7	30.2	10.7	50.1	43.8	50.5	20.0	0.0	4.9	2.5	18.6	28.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN SEPTEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 128 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.03.19 TO 05.04.23. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Aug 1976
Date of First Criticality: 07 Oct 1984
Date of Grid Connection: 11 Oct 1984
Date of Commercial Operation: 06 Dec 1984

Lifetime Generation: 53991.0 GW(e).h
Cumulative Energy Availability Factor: 72.9%
Cumulative Load Factor: 71.1%
Cumulative Unit Capability Factor: 81.4%
Cumulative Energy Unavailability Factor: 27.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	168.5	411.0	100.0	100.0	100.0	100.0	55.1	55.1	730	98.1
1985	2585.8	411.0	78.2	79.9	78.2	79.9	71.8	70.5	7751	88.5
1986	2690.2	411.0	72.4	76.3	72.4	76.3	74.7	72.5	7230	82.5
1987	3341.2	440.0	85.5	79.4	85.5	79.4	86.7	77.3	7861	89.7
1988	3124.2	411.0	85.0	80.7	84.9	80.7	86.5	79.6	7762	88.4
1989	3111.5	411.0	87.6	82.1	85.8	81.7	86.4	80.9	7793	89.0
1990	2930.4	411.0	80.3	81.8	80.2	81.5	81.4	81.0	7142	81.5
1991	2790.5	411.0	76.7	81.1	76.7	80.8	77.5	80.5	7429	84.8
1992	2764.9	411.0	80.5	81.0	80.0	80.7	76.6	80.0	7253	82.6
1993	2827.0	411.0	92.4	82.2	79.0	80.5	78.5	79.8	8247	94.1
1994	1939.8	411.0	62.7	80.3	55.8	78.1	53.9	77.3	5915	67.5
1995	2288.8	411.0	73.8	79.7	73.8	77.7	63.6	76.1	7022	80.2
1996	2537.7	411.0	84.1	80.1	84.1	78.2	70.3	75.6	7792	88.7
1997	2271.7	411.0	76.2	79.8	74.6	78.0	63.1	74.6	6848	78.2
1998	1927.6	411.0	69.4	79.1	49.2	75.9	53.5	73.1	6336	72.3
1999	2567.5	411.0	82.0	79.3	71.2	75.6	71.3	73.0	7193	82.1
2000	2177.5	411.0	86.3	79.7	60.4	74.7	60.3	72.2	7096	80.8
2001	2447.1	411.0	87.4	80.1	68.0	74.3	68.0	72.0	7149	81.6
2002	2601.7	411.0	79.7	80.1	71.5	74.1	72.3	72.0	7281	83.1
2003	2480.8	411.0	90.9	80.7	68.7	73.8	68.9	71.8	6663	76.1
2004	2391.6	411.0	86.8	81.0	66.4	73.5	66.2	71.6	7863	89.5
2005	2231.7	411.0	90.2	81.4	62.1	72.9	62.0	71.1	7879	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					64	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	858			1042	28	
D. Inspection, maintenance or repair without refuelling				97		
E. Testing of plant systems or components				7		
J. Grid failure or grid unavailability			23			157
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	0
Subtotal	858	0	23	1146	93	157
Total		881			1396	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		13
14. Safety Systems		3
15. Reactor Cooling Systems		6
16. Steam generation systems		8
17. Safety I&C Systems (excluding reactor I&C)		0
32. Feedwater and Main Steam System		8
42. Electrical Power Supply Systems		19
Total	0	60

RU-17 KURSK-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 10000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6220.0 GW(e).h
Energy Availability Factor: 77.0%
Load Factor: 76.8%
Operating Factor: 87.3%
Energy Unavailability Factor: 23.0%
Total Off-line Time: 1110 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	530.7	593.7	660.3	576.9	0.0	143.1	631.7	550.3	618.9	621.3	637.2	655.8	6220.0
EAF (%)	78.0	94.5	95.3	87.0	0.6	23.5	91.9	80.7	93.0	90.2	95.5	95.2	77.0
UCF (%)	100.0	99.5	96.1	95.2	0.6	24.0	100.0	88.3	100.0	93.5	100.0	100.0	83.0
LF (%)	77.1	95.5	95.9	86.6	0.0	21.5	91.8	80.0	92.9	90.2	95.7	95.3	76.8
OF (%)	100.0	100.0	99.9	100.0	0.9	48.3	100.0	100.0	100.0	100.0	100.0	100.0	87.3
EUF (%)	22.0	5.5	4.7	13.0	99.4	76.5	8.1	19.3	7.0	9.8	4.5	4.8	23.0
PUF (%)	0.0	0.0	0.0	0.0	99.4	73.5	0.0	0.0	0.0	0.0	0.0	0.0	14.5
UCLF (%)	0.0	0.6	3.9	4.8	0.0	2.5	0.0	11.7	0.0	6.5	0.0	0.0	2.5
XUF (%)	22.0	5.0	0.7	8.2	0.0	0.5	8.1	7.6	7.0	3.3	4.5	4.8	6.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN FEBRUARY, MARCH, OCTOBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 7573 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.05.01 TO 05.06.15. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jun 1972
Date of First Criticality: 25 Oct 1976
Date of Grid Connection: 19 Dec 1976
Date of Commercial Operation: 12 Oct 1977

Lifetime Generation: 132865.0 GW(e).h
Cumulative Energy Availability Factor: 57.7%
Cumulative Load Factor: 57.3%
Cumulative Unit Capability Factor: 59.4%
Cumulative Energy Unavailability Factor: 42.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	1458.9	925.0	79.1	79.1	79.1	79.1	71.4	71.4	1897	85.9
1978	5058.1	925.0	63.0	66.2	63.0	66.2	62.4	64.2	7573	86.4
1979	5930.2	925.0	73.9	69.7	73.1	69.3	73.2	68.2	7528	85.9
1980	6477.7	925.0	79.9	72.8	79.7	72.5	79.7	71.8	7669	87.3
1981	6132.8	925.0	76.4	73.7	76.4	73.4	75.7	72.7	7885	90.0
1982	7010.4	925.0	85.7	75.9	85.7	75.7	86.5	75.3	7788	88.9
1983	6720.3	925.0	82.2	76.9	82.2	76.8	82.9	76.5	7456	85.1
1984	6660.0	925.0	81.4	77.6	81.4	77.4	82.0	77.3	7369	83.9
1985	6346.8	925.0	76.9	77.5	76.8	77.3	78.3	77.4	7186	82.0
1986	5675.8	925.0	69.2	76.6	69.2	76.5	70.0	76.6	6598	75.3
1987	7022.7	1000.0	82.6	77.2	82.6	77.1	80.2	77.0	7407	84.6
1988	6638.0	925.0	81.7	77.6	81.7	77.5	81.7	77.4	7350	83.7
1989	5745.4	925.0	68.3	76.9	68.3	76.8	70.9	76.9	6582	75.1
1990	5090.5	925.0	65.7	76.0	65.7	75.9	62.8	75.8	6817	77.8
1991	4163.1	925.0	53.5	74.4	52.5	74.3	51.4	74.1	7038	80.3
1992	3669.2	925.0	46.3	72.6	46.3	72.5	45.2	72.2	6103	69.5
1993	4809.4	925.0	91.6	73.8	61.8	71.8	59.4	71.4	8145	93.0
1994	1560.6	925.0	20.6	70.7	19.8	68.8	19.3	68.4	2686	30.7
1995	0.0	925.0	0.0	66.8	0.0	65.1	0.0	64.7	0	0.0
1996	0.0	925.0	0.0	63.4	0.0	61.7	0.0	61.3	0	0.0
1997	27.8	925.0	0.5	60.3	0.5	58.7	0.3	58.3	61	0.7
1998	4508.6	925.0	59.3	60.2	57.4	58.6	55.6	58.2	7845	89.6
1999	4557.0	925.0	58.7	60.2	57.6	58.6	56.2	58.1	7464	85.2
2000	3449.7	925.0	44.3	59.5	43.6	57.9	42.5	57.5	5531	63.0
2001	1296.1	925.0	16.6	57.7	16.4	56.2	16.0	55.8	2042	23.3
2002	2462.7	925.0	32.5	56.7	30.8	55.2	30.4	54.8	3439	39.3
2003	6452.7	925.0	80.2	57.6	78.9	56.1	79.6	55.7	7262	82.9
2004	6601.3	925.0	83.0	58.6	81.1	57.0	81.2	56.6	7363	83.8
2005	6220.0	925.0	83.0	59.4	77.0	57.7	76.8	57.3	7651	87.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					57	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1073	36		481		
D. Inspection, maintenance or repair without refuelling				1885	17	
E. Testing of plant systems or components				6		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				178		
H. Nuclear regulatory requirements					12	
J. Grid failure or grid unavailability					0	
Z. Others					5	
Subtotal	1073	36	0	2550	93	0
Total		1109			2643	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		2
15. Reactor Cooling Systems		16
16. Steam generation systems		3
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		3
32. Feedwater and Main Steam System		3
35. All other I&C Systems		1
41. Main Generator Systems		2
42. Electrical Power Supply Systems		6
Total	0	43

RU-22 KURSK-2

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 10000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6896.6 GW(e).h
Energy Availability Factor: 84.7%
Load Factor: 85.1%
Operating Factor: 88.8%
Energy Unavailability Factor: 15.3%
Total Off-line Time: 979 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	671.8	606.5	93.5	321.9	674.7	521.2	675.8	643.7	664.8	696.0	656.7	670.0	6896.6
EAF (%)	96.7	96.9	13.7	49.5	97.3	78.7	97.8	93.4	99.2	98.8	98.0	96.9	84.7
UCF (%)	100.0	100.0	13.7	57.9	100.0	83.1	100.0	96.4	100.0	100.0	100.0	100.0	87.5
LF (%)	97.6	97.6	13.6	48.3	98.0	78.3	98.2	93.5	99.8	101.0	98.6	97.4	85.1
OF (%)	100.0	100.0	14.1	66.9	100.0	85.8	100.0	100.0	100.0	100.0	100.0	100.0	88.8
EUF (%)	3.3	3.1	86.3	50.5	2.7	21.3	2.2	6.6	0.8	1.2	2.0	3.1	15.3
PUF (%)	0.0	0.0	86.3	40.0	0.0	16.6	0.0	0.0	0.1	0.0	0.0	0.0	12.0
UCLF (%)	0.0	0.0	0.0	2.2	0.0	0.3	0.0	3.6	0.0	0.0	0.0	0.0	0.5
XUF (%)	3.3	3.1	0.0	8.4	2.7	4.4	2.2	3.0	0.8	1.2	2.0	3.1	2.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, MAY, SEPTEMBER, OCTOBER NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 27229 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.03.06 TO 05.04.10. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jan 1973
Date of First Criticality: 16 Dec 1978
Date of Grid Connection: 28 Jan 1979
Date of Commercial Operation: 17 Aug 1979

Lifetime Generation: 129567.0 GW(e).h
Cumulative Energy Availability Factor: 60.5%
Cumulative Load Factor: 59.9%
Cumulative Unit Capability Factor: 63.2%
Cumulative Energy Unavailability Factor: 39.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	2303.9	925.0	67.7	67.7	67.7	67.7	67.8	67.8	3070	83.6
1980	6404.3	925.0	79.0	75.7	78.4	75.3	78.8	75.6	7658	87.2
1981	6385.9	925.0	78.7	76.9	78.7	76.7	78.8	76.9	7874	89.9
1982	5875.8	925.0	71.1	75.2	71.1	75.1	72.5	75.6	6443	73.6
1983	5707.6	925.0	70.1	74.1	70.1	73.9	70.4	74.5	7104	81.1
1984	6326.5	925.0	77.1	74.6	77.1	74.5	77.9	75.1	7219	82.2
1985	6459.9	925.0	79.4	75.4	79.4	75.3	79.7	75.8	7598	86.7
1986	5617.3	925.0	69.1	74.5	69.1	74.4	69.3	74.9	6575	75.1
1987	7196.7	1000.0	83.3	75.6	83.3	75.6	82.2	75.9	7539	86.1
1988	5725.7	925.0	73.9	75.5	73.9	75.4	70.5	75.3	6609	75.2
1989	6164.2	925.0	74.9	75.4	74.9	75.3	76.1	75.4	6797	77.6
1990	4789.7	925.0	62.2	74.3	62.2	74.2	59.1	73.9	6874	78.5
1991	4376.0	925.0	56.3	72.8	55.3	72.7	54.0	72.4	7361	84.0
1992	2158.4	925.0	27.2	69.4	27.2	69.3	26.6	69.0	3552	40.4
1993	4438.2	925.0	85.0	70.5	57.1	68.5	54.8	68.0	7432	84.8
1994	4212.2	925.0	55.3	69.5	53.5	67.5	52.0	66.9	7385	84.3
1995	4745.4	925.0	90.8	70.8	59.8	67.0	58.6	66.4	7708	88.0
1996	4196.1	925.0	52.8	69.8	52.7	66.2	51.6	65.6	7099	80.8
1997	4354.3	925.0	55.3	69.0	54.9	65.6	53.7	65.0	7076	80.8
1998	1685.1	925.0	21.7	66.6	21.3	63.3	20.8	62.7	2805	32.0
1999	3708.1	925.0	48.0	65.7	46.8	62.5	45.8	61.9	6066	69.2
2000	3668.1	925.0	48.9	64.9	46.2	61.8	45.1	61.1	6211	70.7
2001	4768.1	925.0	61.1	64.7	60.1	61.7	58.8	61.0	7667	87.5
2002	3027.8	925.0	38.3	63.6	38.1	60.7	37.4	60.0	4770	54.5
2003	3756.2	925.0	47.1	62.9	46.4	60.1	46.4	59.4	5834	66.6
2004	3692.1	925.0	45.1	62.2	45.0	59.5	45.4	58.9	4318	49.2
2005	6896.6	925.0	87.5	63.2	84.7	60.5	85.1	59.9	7782	88.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					113	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	974			791		
D. Inspection, maintenance or repair without refuelling				956	22	
E. Testing of plant systems or components	165					
F. Major back-fitting, refurbishment or upgrading activities with refuelling				152		
J. Grid failure or grid unavailability					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					44	
Subtotal	1139	0	0	1899	182	0
Total	1139			2081		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		60
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		7
14. Safety Systems		2
15. Reactor Cooling Systems		16
16. Steam generation systems		4
32. Feedwater and Main Steam System		4
41. Main Generator Systems		3
42. Electrical Power Supply Systems		1
Total	0	108

RU-38 KURSK-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 10000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4987.1 GW(e).h
Energy Availability Factor: 61.3%
Load Factor: 61.5%
Operating Factor: 63.9%
Energy Unavailability Factor: 38.7%
Total Off-line Time: 3162 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	632.9	624.7	710.9	673.0	669.5	605.4	646.5	424.3	0.0	0.0	0.0	0.0	4987.1
EAF (%)	92.5	99.9	100.0	99.9	97.4	91.2	94.4	62.6	0.0	-0.1	0.0	0.0	61.3
UCF (%)	100.0	100.0	100.0	100.0	100.0	95.5	99.9	68.3	0.0	-0.1	0.0	0.0	63.5
LF (%)	92.0	100.5	103.3	101.0	97.3	90.9	93.9	61.7	0.0	0.0	0.0	0.0	61.5
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	68.7	0.0	0.0	0.0	0.0	63.9
EUF (%)	7.5	0.1	0.0	0.1	2.6	8.8	5.6	37.4	100.0	100.1	100.0	100.0	38.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	31.7	100.0	100.1	100.0	100.0	36.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4
XUF (%)	7.5	0.1	0.0	0.1	2.6	4.2	5.5	5.7	0.0	0.0	0.0	0.0	2.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 34105 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.08.22 TO 05.12.31. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Apr 1978	Lifetime Generation:	127135.0 GW(e).h
Date of First Criticality:	09 Aug 1983	Cumulative Energy Availability Factor:	71.8%
Date of Grid Connection:	17 Oct 1983	Cumulative Load Factor:	70.9%
Date of Commercial Operation:	30 Mar 1984	Cumulative Unit Capability Factor:	73.1%
		Cumulative Energy Unavailability Factor:	28.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	4811.2	925.0	75.0	75.0	75.0	75.0	70.8	70.8	5800	79.0
1985	6260.8	925.0	77.9	76.6	77.6	76.4	77.3	74.3	7250	82.8
1986	4810.8	925.0	60.4	70.9	60.0	70.6	59.4	69.1	6269	71.6
1987	5458.9	1000.0	69.0	70.4	66.4	69.5	62.3	67.2	6185	70.6
1988	6693.6	925.0	83.6	73.1	83.6	72.4	82.4	70.3	7471	85.1
1989	5900.5	925.0	74.3	73.3	74.3	72.7	72.8	70.7	7200	82.2
1990	6889.4	925.0	86.5	75.2	86.5	74.7	85.0	72.8	8096	92.4
1991	5139.0	925.0	63.4	73.7	63.2	73.2	63.4	71.6	5704	65.1
1992	6630.5	925.0	82.1	74.7	82.1	74.2	81.6	72.7	8126	92.5
1993	5562.3	925.0	71.2	74.3	70.3	73.8	68.6	72.3	6438	73.5
1994	5077.9	925.0	73.6	74.2	66.7	73.2	62.7	71.4	6495	74.1
1995	5318.1	925.0	65.7	73.5	65.4	72.5	65.6	70.9	5974	68.2
1996	6739.3	925.0	82.9	74.3	82.7	73.3	82.9	71.9	7383	84.1
1997	6548.7	925.0	82.5	74.8	81.6	73.9	80.8	72.5	7325	83.6
1998	4528.3	925.0	60.3	73.9	56.5	72.7	55.9	71.4	5405	61.7
1999	6006.9	925.0	75.3	74.0	74.3	72.8	74.1	71.6	6749	77.0
2000	6382.3	925.0	78.8	74.2	78.3	73.2	78.5	72.0	7415	84.4
2001	3535.2	925.0	44.7	72.6	43.5	71.5	43.6	70.4	3948	45.1
2002	6699.8	925.0	88.2	73.4	85.1	72.2	82.7	71.1	7788	88.9
2003	5100.6	925.0	62.2	72.9	61.8	71.7	62.9	70.6	5469	62.4
2004	6894.2	925.0	86.3	73.5	84.3	72.3	84.8	71.3	7660	87.2
2005	4987.1	925.0	63.5	73.1	61.3	71.8	61.5	70.9	5598	63.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					155	
C. Inspection, maintenance or repair combined with refuelling	3162			978		
D. Inspection, maintenance or repair without refuelling				791		
J. Grid failure or grid unavailability					2	2
Subtotal	3162	0	0	1769	157	2
Total		3162			1928	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		25
12. Reactor I&C Systems		5
13. Reactor Auxiliary Systems		5
14. Safety Systems		18
15. Reactor Cooling Systems		70
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		3
32. Feedwater and Main Steam System		10
41. Main Generator Systems		1
42. Electrical Power Supply Systems		2
Total	0	143

RU-39 KURSK-4

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power
at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 10000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7081.1 GW(e).h
Energy Availability Factor: 87.1%
Load Factor: 87.4%
Operating Factor: 89.7%
Energy Unavailability Factor: 12.9%
Total Off-line Time: 903 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	663.6	626.8	696.8	653.3	660.7	626.3	3.0	488.9	660.4	689.1	644.5	667.8	7081.1
EAF (%)	96.2	99.9	99.8	97.8	95.6	93.9	1.4	71.6	99.0	99.4	96.8	97.0	87.1
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	1.4	74.2	100.0	100.0	100.0	100.0	89.4
LF (%)	96.4	100.8	101.2	98.1	96.0	94.0	0.4	71.0	99.2	100.0	96.8	97.0	87.4
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	1.9	76.9	100.0	100.0	100.0	100.0	89.7
EUUF (%)	3.8	0.1	0.2	2.2	4.4	6.1	98.6	28.4	1.0	0.6	3.2	3.0	12.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	98.6	25.8	0.0	0.0	0.0	0.0	10.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	3.8	0.1	0.1	2.2	4.4	6.1	0.0	2.5	1.0	0.6	3.2	3.0	2.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, SEPTEMBER, OCTOBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 12020 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.07.01 TO 05.08.08. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 May 1981
Date of First Criticality: 31 Oct 1985
Date of Grid Connection: 02 Dec 1985
Date of Commercial Operation: 05 Feb 1986

Lifetime Generation: 124594.0 GW(e).h
Cumulative Energy Availability Factor: 76.7%
Cumulative Load Factor: 76.8%
Cumulative Unit Capability Factor: 77.9%
Cumulative Energy Unavailability Factor: 23.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	5952.3	925.0	80.8	80.8	80.4	80.4	80.3	80.3	7059	88.1
1987	6167.7	1000.0	72.4	76.3	72.3	76.0	70.4	74.9	6704	76.5
1988	6653.0	925.0	81.7	78.1	81.7	77.9	81.9	77.3	7390	84.1
1989	6131.8	925.0	76.0	77.6	76.0	77.4	75.7	76.9	6954	79.4
1990	6050.0	925.0	73.7	76.8	73.6	76.7	74.7	76.4	6922	79.0
1991	7356.1	925.0	92.5	79.4	90.3	78.9	90.8	78.8	8469	96.7
1992	6117.4	925.0	75.4	78.9	75.4	78.4	75.3	78.3	7324	83.4
1993	5638.3	925.0	71.7	78.0	71.0	77.5	69.6	77.2	6439	73.5
1994	5369.4	925.0	71.5	77.3	67.0	76.3	66.3	76.0	6255	71.4
1995	6207.5	925.0	78.6	77.4	77.0	76.4	76.6	76.1	7001	79.9
1996	6590.2	925.0	81.4	77.8	80.2	76.7	81.1	76.5	7373	83.9
1997	5971.7	925.0	73.9	77.4	73.1	76.4	73.7	76.3	6664	76.1
1998	6641.4	925.0	86.7	78.1	82.3	76.9	82.0	76.7	7751	88.5
1999	5895.4	925.0	74.2	77.9	72.8	76.6	72.8	76.4	6595	75.3
2000	6778.8	925.0	83.5	78.2	82.8	77.0	83.4	76.9	7423	84.5
2001	6671.6	925.0	82.2	78.5	81.5	77.3	82.3	77.2	7281	83.1
2002	5531.0	925.0	68.3	77.9	67.6	76.7	68.3	76.7	6094	69.6
2003	6233.4	925.0	77.3	77.8	75.8	76.7	76.9	76.7	6802	77.6
2004	5422.9	925.0	68.0	77.3	66.7	76.1	66.7	76.2	6005	68.4
2005	7081.1	925.0	89.4	77.9	87.1	76.7	87.4	76.8	7858	89.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					60	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	902			737		
D. Inspection, maintenance or repair without refuelling				704		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				136		
J. Grid failure or grid unavailability					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					9	
Subtotal	902	0	0	1577	75	0
Total	902			1652		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		2
15. Reactor Cooling Systems		15
32. Feedwater and Main Steam System		11
42. Electrical Power Supply Systems		27
Total	0	57

RU-15 LENINGRAD-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 22000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7145.4 GW(e).h
Energy Availability Factor: 88.5%
Load Factor: 88.2%
Operating Factor: 94.2%
Energy Unavailability Factor: 11.5%
Total Off-line Time: 506 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	572.4	590.1	660.7	642.1	177.4	524.8	631.3	671.0	658.8	688.0	633.3	695.5	7145.4
EAF (%)	84.1	95.1	96.3	96.5	27.2	80.1	92.6	97.8	98.8	99.7	95.3	99.8	88.5
UCF (%)	100.0	100.0	100.0	99.9	29.3	100.0	96.8	98.6	98.8	99.7	100.0	99.8	93.5
LF (%)	83.2	94.9	96.0	96.4	25.8	78.8	91.7	97.5	98.9	99.8	95.1	101.1	88.2
OF (%)	100.0	100.0	99.9	100.0	32.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2
EUF (%)	15.9	4.9	3.7	3.5	72.8	19.9	7.4	2.2	1.2	0.3	4.7	0.2	11.5
PUF (%)	0.0	0.0	0.0	0.1	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
UCLF (%)	0.0	0.0	0.0	0.0	3.7	0.0	3.2	1.4	1.2	0.3	0.0	0.2	0.8
XUF (%)	15.9	4.9	3.7	3.4	2.1	19.9	4.2	0.8			4.7		4.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 18266 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.05.01 TO 05.05.21. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Mar 1970
Date of First Criticality: 12 Sep 1973
Date of Grid Connection: 21 Dec 1973
Date of Commercial Operation: 01 Nov 1974

Lifetime Generation: 174003.0 GW(e).h
Cumulative Energy Availability Factor: 68.3%
Cumulative Load Factor: 67.8%
Cumulative Unit Capability Factor: 69.0%
Cumulative Energy Unavailability Factor: 31.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	1022.6	925.0	76.5	76.5	76.5	76.5	75.5	75.5	1378	94.1
1975	3998.9	925.0	50.6	54.3	50.6	54.3	49.4	53.1	6661	76.0
1976	4098.2	925.0	51.5	53.0	51.5	53.0	50.4	51.9	6137	69.9
1977	5941.8	925.0	74.1	59.7	74.1	59.7	73.3	58.6	8192	93.5
1978	5413.7	925.0	67.3	61.5	67.3	61.5	66.8	60.6	6735	76.9
1979	6322.0	925.0	78.7	64.8	78.7	64.8	78.0	64.0	7973	91.0
1980	5542.1	925.0	68.5	65.4	68.3	65.4	68.2	64.7	6574	74.8
1981	6414.7	925.0	79.8	67.4	79.5	67.4	79.2	66.7	8018	91.5
1982	5709.6	925.0	70.8	67.8	70.8	67.8	70.5	67.1	6665	76.1
1983	7164.8	925.0	88.0	70.0	87.5	69.9	88.4	69.5	7803	89.1
1984	6650.1	925.0	82.0	71.2	81.7	71.1	81.8	70.7	7321	83.3
1985	7008.1	925.0	86.5	72.6	86.3	72.5	86.5	72.1	8059	92.0
1986	5924.1	925.0	73.3	72.6	73.3	72.5	73.1	72.2	6677	76.2
1987	8113.0	1000.0	93.5	74.3	92.7	74.2	92.6	73.8	8255	94.2
1988	6620.3	925.0	81.7	74.9	81.7	74.7	81.5	74.4	7519	85.6
1989	4577.0	925.0	56.4	73.6	56.0	73.5	56.5	73.2	4993	57.0
1990	0.0	925.0	0.0	69.1	0.0	69.0	0.0	68.7	0	0.0
1991	3934.0	925.0	49.9	68.0	49.9	67.8	48.5	67.5	6385	72.9
1992	7191.6	925.0	88.6	69.1	88.1	69.0	88.5	68.7	7995	91.0
1993	6520.4	925.0	83.5	69.9	81.7	69.6	80.5	69.3	7354	83.9
1994	5531.2	925.0	77.7	70.3	77.6	70.0	68.3	69.3	6956	79.4
1995	0.0	925.0	0.0	67.0	0.0	66.7	0.0	66.0	0	0.0
1996	3852.8	925.0	47.6	66.1	47.5	65.9	47.4	65.2	4454	50.7
1997	6872.4	925.0	88.6	67.1	86.1	66.7	84.8	66.0	7785	88.9
1998	5630.3	925.0	69.8	67.2	68.8	66.8	69.5	66.1	6220	71.0
1999	6637.9	925.0	81.8	67.7	81.3	67.4	81.9	66.8	7431	84.8
2000	6317.8	925.0	78.5	68.2	77.2	67.8	77.8	67.2	7069	80.5
2001	7097.8	925.0	89.2	68.9	87.4	68.5	87.6	67.9	7923	90.4
2002	5824.6	925.0	72.4	69.1	71.2	68.6	71.9	68.1	7104	81.1
2003	7446.3	925.0	95.0	69.9	92.2	69.4	91.9	68.9	8495	97.0
2004	1328.5	925.0	18.2	68.2	16.7	67.6	16.4	67.2	1715	19.5
2005	7145.4	925.0	93.5	69.0	88.5	68.3	88.2	67.8	8255	94.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					114	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling				1066		
D. Inspection, maintenance or repair without refuelling	478	28		707		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				8		
G. Major back-fitting, refurbishment or upgrading activities without refuelling				211		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					7	
Subtotal	478	28	0	1992	129	0
Total	506			2121		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		19
14. Safety Systems		8
15. Reactor Cooling Systems		36
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		4
35. All other I&C Systems		3
41. Main Generator Systems		2
42. Electrical Power Supply Systems		1
Total	0	77

RU-16 LENINGRAD-2

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power
at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 22000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3763.2 GW(e).h
Energy Availability Factor: 46.6%
Load Factor: 46.4%
Operating Factor: 52.0%
Energy Unavailability Factor: 53.4%
Total Off-line Time: 4203 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	590.4	609.4	663.3	639.4	672.7	510.1	77.9	0.0	0.0	0.0	0.0	0.0	3763.2
EAF (%)	86.4	97.6	95.6	95.3	98.4	77.7	13.0	0.0	0.0	-0.1	0.0	0.0	46.6
UCF (%)	99.9	100.0	95.6	99.0	100.0	95.8	15.6	0.0	0.0	-0.1	0.0	0.0	50.1
LF (%)	85.8	98.0	96.4	96.0	97.8	76.6	11.3	0.0	0.0	0.0	0.0	0.0	46.4
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	28.8	0.0	0.0	0.0	0.0	0.0	52.0
EUF (%)	13.6	2.4	4.4	4.7	1.6	22.3	87.0	100.0	100.0	100.1	100.0	100.0	53.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	84.4	100.0	100.0	100.1	100.0	100.0	49.1
UCLF (%)	0.1	0.0	4.4	1.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8
XUF (%)	13.5	2.4	0.0	3.6	1.6	18.1	2.6	0.0	0.0	0.0	0.0	0.0	3.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, MAY. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 15645 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.07.09 TO 05.12.31. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Jun 1970	Lifetime Generation:	172546.0 GW(e).h
Date of First Criticality:	06 May 1975	Cumulative Energy Availability Factor:	70.5%
Date of Grid Connection:	11 Jul 1975	Cumulative Load Factor:	70.3%
Date of Commercial Operation:	11 Feb 1976	Cumulative Unit Capability Factor:	71.4%
		Cumulative Energy Unavailability Factor:	29.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	4873.3	925.0	67.9	67.9	67.9	67.9	65.5	65.5	6910	85.9
1977	5413.7	925.0	67.2	67.5	67.1	67.5	66.8	66.2	7337	83.8
1978	6310.8	925.0	78.8	71.4	78.8	71.3	77.9	70.2	8008	91.4
1979	5633.7	925.0	70.1	71.0	70.1	71.0	69.5	70.0	6954	79.4
1980	6351.8	925.0	78.8	72.6	78.6	72.6	78.2	71.7	7960	90.6
1981	5177.2	925.0	62.0	70.8	62.0	70.8	63.9	70.4	6057	69.1
1982	7266.8	925.0	90.4	73.7	89.9	73.5	89.7	73.2	8125	92.8
1983	6790.8	925.0	84.2	75.0	83.6	74.8	83.8	74.5	7479	85.4
1984	7145.9	925.0	87.6	76.4	87.4	76.2	87.9	76.0	7881	89.7
1985	5962.6	925.0	74.4	76.2	74.3	76.0	73.6	75.8	6604	75.4
1986	7152.3	925.0	88.4	77.3	88.1	77.1	88.3	76.9	7914	90.3
1987	7228.2	1000.0	83.7	77.9	83.0	77.7	82.5	77.4	7513	85.8
1988	6814.9	925.0	83.6	78.3	83.6	78.1	83.9	77.9	7417	84.4
1989	6111.5	925.0	75.8	78.2	75.6	77.9	75.4	77.7	7102	81.1
1990	5998.3	925.0	75.5	78.0	75.3	77.8	74.0	77.5	8125	92.8
1991	4410.8	925.0	56.4	76.6	56.3	76.4	54.4	76.1	7204	82.2
1992	0.0	925.0	0.0	72.1	0.0	71.9	0.0	71.6	0	0.0
1993	0.0	925.0	0.0	68.1	0.0	67.9	0.0	67.6	0	0.0
1994	164.1	925.0	2.3	64.6	2.3	64.5	2.0	64.1	660	7.5
1995	6812.0	925.0	93.4	66.1	86.2	65.6	84.1	65.1	8280	94.5
1996	7244.9	925.0	89.4	67.2	89.1	66.7	89.2	66.3	7922	90.2
1997	6587.1	925.0	83.1	67.9	82.6	67.4	81.3	67.0	7342	83.8
1998	5916.7	925.0	73.4	68.2	72.5	67.6	73.0	67.2	6643	75.8
1999	6557.8	925.0	80.6	68.7	80.2	68.1	80.9	67.8	7299	83.3
2000	7252.5	925.0	90.1	69.5	88.6	69.0	89.3	68.7	7972	90.8
2001	7073.5	925.0	88.5	70.3	86.6	69.6	87.3	69.4	7904	90.2
2002	7024.9	925.0	88.7	70.9	86.6	70.3	86.7	70.0	7961	90.9
2003	7134.4	925.0	90.9	71.7	88.0	70.9	88.0	70.7	8298	94.7
2004	6711.5	925.0	86.4	72.2	82.9	71.3	82.6	71.1	7832	89.2
2005	3763.2	925.0	50.1	71.4	46.6	70.5	46.4	70.3	4557	52.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					85	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				711		
D. Inspection, maintenance or repair without refuelling				1066	9	
E. Testing of plant systems or components					1	
G. Major back-fitting, refurbishment or upgrading activities without refuelling	4200					
Subtotal	4200	0	0	1777	98	0
Total		4200			1875	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		9
12. Reactor I&C Systems		7
13. Reactor Auxiliary Systems		7
15. Reactor Cooling Systems		20
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		5
35. All other I&C Systems		1
42. Electrical Power Supply Systems		5
Total	0	57

RU-34 LENINGRAD-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 22000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4447.3 GW(e).h
Energy Availability Factor: 61.1%
Load Factor: 54.9%
Operating Factor: 61.6%
Energy Unavailability Factor: 38.9%
Total Off-line Time: 3364 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	511.4	186.3	0.0	0.0	0.0	0.0	530.1	677.2	654.8	686.6	627.2	573.8	4447.3
EAF (%)	98.9	37.6	0.1	0.0	0.0	16.7	98.1	99.2	98.9	99.3	97.4	83.6	61.1
UCF (%)	98.9	37.6	0.1	0.0	0.0	16.7	100.0	99.6	99.4	100.0	97.4	84.5	61.5
LF (%)	74.3	30.0	0.0	0.0	0.0	0.0	77.0	98.4	98.3	99.6	94.2	83.4	54.9
OF (%)	100.0	39.4	0.0	0.0	0.0	0.0	96.1	100.0	100.0	100.0	100.0	100.0	61.6
EUf (%)	1.1	62.4	99.9	100.0	100.0	83.3	1.9	0.8	1.1	0.7	2.6	16.4	38.9
PUF (%)	0.0	62.4	99.9	100.0	100.0	83.3	0.0	0.0	0.0	0.0	0.0	0.0	36.8
UCLF (%)	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.0	2.7	15.5	1.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.4	0.5	0.7	0.0	0.9	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN FEBRUARY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 38911 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.02.12 TO 05.06.25. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Dec 1973	Lifetime Generation:	144513.0 GW(e).h
Date of First Criticality:	17 Sep 1979	Cumulative Energy Availability Factor:	69.6%
Date of Grid Connection:	07 Dec 1979	Cumulative Load Factor:	68.4%
Date of Commercial Operation:	29 Jun 1980	Cumulative Unit Capability Factor:	70.6%
		Cumulative Energy Unavailability Factor:	30.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	3623.6	925.0	77.4	77.4	77.4	77.4	76.3	76.3	4488	87.4
1981	6553.6	925.0	81.7	80.1	81.3	79.9	80.9	79.2	7528	85.9
1982	6413.3	925.0	80.8	80.4	80.3	80.0	79.1	79.2	7448	85.0
1983	5708.4	925.0	71.3	77.8	70.9	77.5	70.4	76.7	6809	77.7
1984	7214.9	925.0	89.8	80.4	89.2	80.1	88.8	79.4	8060	91.8
1985	6831.9	925.0	85.4	81.3	84.9	80.9	84.3	80.3	7835	89.4
1986	6890.9	925.0	86.4	82.1	85.9	81.7	85.0	81.0	7935	90.6
1987	6010.3	1000.0	70.4	80.5	69.4	79.9	68.6	79.2	6362	72.6
1988	6951.7	925.0	86.5	81.2	86.5	80.7	85.6	80.0	7885	89.8
1989	6938.1	925.0	86.2	81.7	85.9	81.2	85.6	80.6	7455	85.1
1990	7531.9	925.0	93.0	82.7	92.4	82.3	93.0	81.7	8280	94.5
1991	6506.6	925.0	80.6	82.6	80.6	82.1	80.3	81.6	7197	82.2
1992	5516.6	925.0	68.5	81.4	68.4	81.0	67.9	80.5	6122	69.7
1993	7143.8	925.0	90.1	82.1	88.9	81.6	88.2	81.1	7966	90.9
1994	6631.8	925.0	92.4	82.8	91.0	82.3	81.8	81.1	8135	92.9
1995	3586.0	925.0	49.4	80.7	46.5	80.0	44.3	78.8	4332	49.5
1996	0.0	925.0	0.0	75.8	0.0	75.2	0.0	74.0	0	0.0
1997	0.0	925.0	0.0	71.5	0.0	70.9	0.0	69.8	0	0.0
1998	1386.5	925.0	17.5	68.6	17.4	68.1	17.1	67.0	1610	18.4
1999	7853.1	925.0	99.7	70.2	97.1	69.5	96.9	68.5	8701	99.3
2000	6352.8	925.0	79.6	70.7	78.2	70.0	78.2	69.0	7169	81.6
2001	6173.5	925.0	78.9	71.0	76.6	70.3	76.2	69.3	7007	80.0
2002	2514.7	925.0	33.6	69.4	31.9	68.6	31.0	67.7	3332	38.0
2003	6729.2	925.0	86.6	70.1	84.5	69.2	83.0	68.3	8100	92.5
2004	6909.1	925.0	90.9	71.0	86.5	69.9	85.0	69.0	8426	95.9
2005	4447.3	925.0	61.5	70.6	61.1	69.6	54.9	68.4	5397	61.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					59	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				458		
D. Inspection, maintenance or repair without refuelling				1452		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				201		
G. Major back-fitting, refurbishment or upgrading activities without refuelling	3214					
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			149		2	2
Subtotal	3214	0	149	2111	64	2
Total		3363			2177	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		12
14. Safety Systems		1
15. Reactor Cooling Systems		8
17. Safety I&C Systems (excluding reactor I&C)		9
31. Turbine and auxiliaries		7
32. Feedwater and Main Steam System		1
41. Main Generator Systems		3
42. Electrical Power Supply Systems		13
Total	0	54

RU-35 LENINGRAD-4

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 22000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6730.1 GW(e).h
Energy Availability Factor: 83.8%
Load Factor: 83.0%
Operating Factor: 89.5%
Energy Unavailability Factor: 16.2%
Total Off-line Time: 923 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	509.1	562.2	689.1	659.5	681.0	590.4	639.6	248.1	148.8	684.9	629.0	688.3	6730.1
EAF (%)	76.0	90.7	100.0	99.1	99.5	89.9	94.4	37.5	24.5	99.6	95.1	98.6	83.8
UCF (%)	100.0	99.8	100.0	100.0	99.8	100.0	99.5	38.3	34.9	100.0	100.0	100.0	89.3
LF (%)	74.0	90.4	100.1	99.0	99.0	88.6	92.9	36.1	22.3	99.4	94.4	100.0	83.0
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	38.8	35.1	100.0	100.0	100.0	89.5
EUF (%)	24.0	9.3	0.0	0.9	0.5	10.1	5.6	62.5	75.5	0.4	4.9	1.4	16.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.5	65.1	0.0	0.0	0.0	10.6
UCLF (%)	0.0	0.2	0.0	0.0	0.2	0.0	0.5	0.3	0.0	0.0	0.0	0.0	0.1
XUF (%)	24.0	9.1	0.0	0.9	0.3	10.1	5.1	0.8	10.4	0.4	4.9	1.4	5.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 46900 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.08.13 TO 05.09.20. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Feb 1975
Date of First Criticality: 29 Dec 1980
Date of Grid Connection: 09 Feb 1981
Date of Commercial Operation: 29 Aug 1981

Lifetime Generation: 142912.0 GW(e).h
Cumulative Energy Availability Factor: 72.3%
Cumulative Load Factor: 71.2%
Cumulative Unit Capability Factor: 73.5%
Cumulative Energy Unavailability Factor: 27.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	2582.8	925.0	76.9	76.9	76.9	76.9	76.0	76.0	3169	86.3
1982	6715.2	925.0	83.7	81.7	83.6	81.6	82.9	80.8	7609	86.9
1983	6844.2	925.0	86.1	83.5	85.3	83.1	84.5	82.3	8159	93.1
1984	6126.3	925.0	74.9	81.0	74.4	80.6	75.4	80.3	6803	77.4
1985	7335.3	925.0	91.2	83.3	90.9	82.9	90.5	82.6	8309	94.9
1986	7060.9	925.0	88.7	84.3	87.6	83.8	87.1	83.5	7826	89.3
1987	7319.2	1000.0	85.0	84.4	84.1	83.9	83.6	83.5	7530	86.0
1988	6050.4	925.0	74.8	83.1	74.8	82.6	74.5	82.3	6667	75.9
1989	7409.7	925.0	91.9	84.2	91.5	83.7	91.4	83.3	8185	93.4
1990	7762.6	925.0	96.1	85.4	95.4	84.9	95.8	84.7	8588	98.0
1991	6130.7	925.0	76.8	84.6	76.1	84.1	75.7	83.8	6870	78.4
1992	5618.1	925.0	70.8	83.4	70.3	82.9	69.2	82.5	6617	75.3
1993	6735.7	925.0	87.6	83.7	85.3	83.1	83.1	82.6	7762	88.6
1994	6167.1	925.0	83.2	83.7	82.1	83.0	76.1	82.1	7340	83.8
1995	6141.0	925.0	86.1	83.9	83.0	83.0	75.8	81.7	7270	83.0
1996	7079.7	925.0	88.8	84.2	88.3	83.3	87.1	82.0	8048	91.6
1997	7644.7	925.0	98.2	85.0	95.9	84.1	94.3	82.8	8760	100.0
1998	3682.0	925.0	47.3	82.9	46.0	81.9	45.4	80.6	4341	49.6
1999	0.0	925.0	0.0	78.4	0.0	77.5	0.0	76.3	0	0.0
2000	0.0	925.0	0.0	74.4	0.0	73.5	0.0	72.4	0	0.0
2001	3585.7	925.0	45.5	73.0	44.6	72.1	44.3	71.0	4387	50.1
2002	7528.5	925.0	97.6	74.1	93.9	73.1	92.9	72.0	8760	100.0
2003	1957.2	925.0	26.0	72.0	24.7	71.0	24.2	69.9	2399	27.4
2004	7232.2	925.0	92.3	72.8	89.6	71.8	89.0	70.7	8243	93.8
2005	6730.1	925.0	89.3	73.5	83.8	72.3	83.0	71.2	7838	89.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					44	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling				1382		
D. Inspection, maintenance or repair without refuelling	922			299		
E. Testing of plant systems or components					0	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				254		
J. Grid failure or grid unavailability					2	12
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					30	1
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)					0	
Subtotal	922	0	0	1935	76	13
Total	922			2024		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		2
15. Reactor Cooling Systems		22
16. Steam generation systems		2
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		6
41. Main Generator Systems		2
42. Electrical Power Supply Systems		3
Total	0	40

RU-9 NOVOVORONEZH-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 385.0 MW(e)
Design Net Capacity: 385.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2472.1 GW(e).h
Energy Availability Factor: 74.2%
Load Factor: 73.3%
Operating Factor: 82.6%
Energy Unavailability Factor: 25.8%
Total Off-line Time: 1528 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	255.1	231.6	251.1	242.4	244.1	92.2	0.0	123.0	248.6	249.3	258.3	276.4	2472.1
EAF (%)	90.3	90.7	89.3	88.8	85.9	34.9	0.4	44.3	90.2	87.0	93.6	96.7	74.2
UCF (%)	90.4	90.7	90.5	90.3	90.0	36.7	0.4	47.1	94.0	88.8	95.3	96.7	75.7
LF (%)	89.1	89.5	87.7	87.4	85.2	33.2	0.0	42.9	89.7	86.9	93.2	96.5	73.3
OF (%)	100.0	100.0	99.9	100.0	100.0	41.1	0.0	51.7	100.0	100.0	100.0	100.0	82.6
EUF (%)	9.7	9.3	10.7	11.2	14.1	65.1	99.6	55.7	9.8	13.0	6.4	3.3	25.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	59.2	99.6	50.4	0.0	0.0	0.0	0.0	17.6
UCLF (%)	9.7	9.3	9.5	9.7	10.0	4.1	0.0	2.6	6.0	11.3	4.7	3.3	6.6
XUF (%)	0.1	0.0	1.2	1.5	4.1	1.8	0.0	2.7	3.8	1.7	1.8	0.0	1.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.06.13 TO 05.08.15. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jul 1967
Date of First Criticality: 22 Dec 1971
Date of Grid Connection: 27 Dec 1971
Date of Commercial Operation: 29 Jun 1972

Lifetime Generation: 81238.0 GW(e).h
Cumulative Energy Availability Factor: 71.7%
Cumulative Load Factor: 70.9%
Cumulative Unit Capability Factor: 72.4%
Cumulative Energy Unavailability Factor: 28.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	1319.4	385.0	76.7	76.7	76.7	76.7	66.7	66.7	4397	85.6
1973	1877.2	385.0	57.9	64.8	57.9	64.8	55.7	59.7	7114	81.2
1974	2630.0	385.0	79.0	70.3	79.0	70.3	78.0	66.8	7990	91.2
1975	1967.9	385.0	58.0	66.9	58.0	66.9	58.4	64.4	6695	76.4
1976	2221.4	385.0	66.6	66.8	66.6	66.8	65.7	64.7	7534	85.8
1977	2786.3	385.0	82.1	69.6	82.1	69.6	82.6	67.9	7851	89.6
1978	2903.8	385.0	85.8	72.0	85.8	72.0	86.1	70.7	7962	90.9
1979	2632.9	385.0	77.9	72.8	77.9	72.8	78.1	71.7	7477	85.4
1980	2844.6	385.0	84.2	74.1	84.2	74.1	84.3	73.1	8246	94.1
1981	2827.2	385.0	84.0	75.1	84.0	75.1	83.8	74.2	7934	90.6
1982	2770.5	385.0	82.6	75.8	82.6	75.8	82.1	75.0	8037	91.7
1983	2470.0	385.0	74.1	75.7	74.1	75.7	73.2	74.8	7158	81.7
1984	3056.5	385.0	89.8	76.8	89.8	76.8	90.4	76.1	8185	93.2
1985	3003.8	385.0	88.9	77.7	88.9	77.7	89.1	77.0	8195	93.6
1986	2705.5	385.0	80.5	77.9	80.5	77.9	80.2	77.3	8048	91.9
1987	2321.9	417.0	66.5	77.1	66.5	77.1	63.6	76.3	6361	72.6
1988	2906.1	385.0	91.0	77.9	91.0	77.9	85.9	76.9	8110	92.3
1989	1984.6	385.0	66.0	77.3	66.0	77.3	58.8	75.9	6040	68.9
1990	2767.4	385.0	85.6	77.7	84.4	77.7	82.1	76.2	8611	98.3
1991	1614.0	385.0	49.2	76.3	48.7	76.2	47.9	74.8	5176	59.1
1992	2580.4	385.0	76.9	76.3	76.2	76.2	76.3	74.8	6991	79.6
1993	1810.5	385.0	53.8	75.3	53.0	75.1	53.7	73.9	4991	57.0
1994	2714.6	385.0	82.0	75.6	79.1	75.3	80.5	74.1	7300	83.3
1995	1364.0	385.0	41.3	74.1	40.6	73.8	40.4	72.7	3945	45.0
1996	1947.0	385.0	58.8	73.5	57.1	73.1	57.6	72.1	5510	62.7
1997	2624.0	385.0	79.7	73.7	77.4	73.3	77.8	72.3	7075	80.8
1998	2535.6	385.0	76.4	73.8	74.3	73.3	75.2	72.4	6822	77.9
1999	1919.3	385.0	61.4	73.4	57.1	72.8	56.9	71.9	5669	64.7
2000	2621.5	385.0	79.8	73.6	77.2	72.9	77.5	72.1	7131	81.2
2001	1293.4	385.0	38.5	72.4	38.2	71.7	38.3	70.9	3529	40.3
2002	2431.9	385.0	72.6	72.4	71.9	71.7	72.1	71.0	6415	73.2
2003	2335.0	385.0	69.6	72.3	68.9	71.7	69.2	70.9	6236	71.2
2004	2313.6	385.0	71.3	72.3	69.7	71.6	68.4	70.8	7282	82.9
2005	2472.1	385.0	75.7	72.4	74.2	71.7	73.3	70.9	7233	82.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					127	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1527			1459		
D. Inspection, maintenance or repair without refuelling				147		
Z. Others					6	
Subtotal	1527	0	0	1606	133	0
Total	1527			1739		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		15
15. Reactor Cooling Systems		1
16. Steam generation systems		67
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		11
35. All other I&C Systems		0
42. Electrical Power Supply Systems		1
Total	0	98

RU-11 NOVOVORONEZH-4

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 385.0 MW(e)
Design Net Capacity: 385.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2433.4 GW(e).h
Energy Availability Factor: 73.1%
Load Factor: 72.2%
Operating Factor: 82.5%
Energy Unavailability Factor: 26.9%
Total Off-line Time: 1532 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	268.2	233.9	211.1	236.3	238.6	147.7	240.0	235.4	163.1	0.0	178.6	280.5	2433.4
EAF (%)	94.1	91.1	75.3	86.3	83.7	55.3	85.5	83.9	59.8	0.2	65.2	97.4	73.1
UCF (%)	94.1	91.1	75.3	88.1	88.2	57.6	90.8	89.7	62.0	0.2	67.8	99.2	75.3
LF (%)	93.6	90.4	73.7	85.2	83.3	53.3	83.8	82.2	58.8	0.0	64.4	97.9	72.2
OF (%)	100.0	100.0	84.1	100.0	100.0	64.2	100.0	100.0	70.0	0.0	72.8	100.0	82.5
EUF (%)	5.9	8.9	24.7	13.7	16.3	44.7	14.5	16.1	40.2	99.8	34.8	2.6	26.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.9	99.8	30.6	0.0	13.5
UCLF (%)	5.9	8.9	24.8	12.0	11.9	42.4	9.2	10.3	7.1	0.0	1.6	0.8	11.2
XUF (%)	0.0	0.0	0.0	1.7	4.4	2.3	5.3	5.8	2.2	0.0	2.6	1.8	2.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 548 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.09.22 TO 05.11.09. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jul 1967
Date of First Criticality: 25 Dec 1972
Date of Grid Connection: 28 Dec 1972
Date of Commercial Operation: 24 Mar 1973

Lifetime Generation: 86010.0 GW(e).h
Cumulative Energy Availability Factor: 77.7%
Cumulative Load Factor: 77.2%
Cumulative Unit Capability Factor: 79.1%
Cumulative Energy Unavailability Factor: 22.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	2360.2	385.0	85.8	85.8	85.8	85.8	83.5	83.5	6838	93.1
1974	2411.8	385.0	71.3	77.9	71.3	77.9	71.5	77.0	7159	81.7
1975	2644.9	385.0	75.6	77.1	75.6	77.1	78.4	77.5	7950	90.8
1976	2924.1	385.0	84.5	79.0	84.5	79.0	86.5	79.8	7963	90.7
1977	2822.9	385.0	81.3	79.5	81.3	79.5	83.7	80.6	7637	87.2
1978	2658.5	385.0	78.2	79.3	78.2	79.3	78.8	80.3	7388	84.3
1979	2442.2	385.0	72.4	78.3	72.4	78.3	72.4	79.2	6888	78.6
1980	2842.9	385.0	84.1	79.0	84.1	79.0	84.1	79.8	7690	87.5
1981	3019.9	385.0	90.0	80.3	90.0	80.3	89.6	80.9	8278	94.5
1982	2797.5	385.0	83.9	80.6	83.9	80.6	82.9	81.1	8278	94.5
1983	2950.3	385.0	89.2	81.4	89.2	81.4	87.5	81.7	8216	93.8
1984	2974.1	385.0	87.9	82.0	87.9	82.0	87.9	82.2	7982	90.9
1985	3097.9	385.0	91.3	82.7	91.3	82.7	91.9	83.0	8250	94.2
1986	2792.2	385.0	82.6	82.7	82.6	82.7	82.8	83.0	7688	87.8
1987	3262.7	417.0	91.7	83.3	91.7	83.3	89.3	83.4	8252	94.2
1988	2529.4	385.0	80.0	83.1	80.0	83.1	74.8	82.9	7152	81.4
1989	2710.3	385.0	90.2	83.5	90.2	83.5	80.4	82.7	8357	95.4
1990	2244.7	385.0	70.5	82.8	69.6	82.8	66.6	81.8	6622	75.6
1991	1827.6	385.0	58.2	81.5	58.0	81.5	54.2	80.4	5540	63.2
1992	2853.4	385.0	87.3	81.8	82.4	81.5	84.4	80.6	8163	92.9
1993	2613.7	385.0	79.7	81.7	76.6	81.3	77.5	80.4	7204	82.2
1994	1954.3	385.0	66.9	81.0	56.6	80.1	57.9	79.4	6033	68.9
1995	2120.0	385.0	65.5	80.4	62.2	79.4	62.9	78.7	5818	66.4
1996	3080.3	385.0	93.8	80.9	90.4	79.8	91.1	79.2	8362	95.2
1997	2235.5	385.0	70.3	80.5	67.0	79.3	66.3	78.7	6690	76.4
1998	2714.9	385.0	83.2	80.6	80.2	79.3	80.5	78.7	7366	84.1
1999	1791.5	385.0	54.9	79.6	53.2	78.4	53.1	77.8	4927	56.2
2000	2474.3	385.0	74.6	79.5	73.1	78.2	73.2	77.6	6784	77.2
2001	2656.0	385.0	80.7	79.5	79.2	78.2	78.8	77.7	7173	81.9
2002	2184.8	385.0	65.4	79.0	64.2	77.8	64.8	77.2	5857	66.9
2003	2583.1	385.0	78.8	79.0	76.8	77.7	76.6	77.2	6950	79.3
2004	2714.0	385.0	83.7	79.2	80.8	77.8	80.3	77.3	7685	87.5
2005	2433.4	385.0	75.3	79.1	73.1	77.7	72.2	77.2	7228	82.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					54	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1157			1057		
D. Inspection, maintenance or repair without refuelling				134		
E. Testing of plant systems or components				17		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				82		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				3	19	
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)		375				
Subtotal	1157	375	0	1293	75	0
Total		1532			1368	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		15
15. Reactor Cooling Systems		1
16. Steam generation systems		24
32. Feedwater and Main Steam System		12
Total	0	52

RU-20 NOVOVORONEZH-5

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2544.3 GW(e).h
Energy Availability Factor: 30.6%
Load Factor: 30.6%
Operating Factor: 32.7%
Energy Unavailability Factor: 69.4%
Total Off-line Time: 5900 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	540.3	714.2	595.7	694.0	2544.3
EAF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.8	79.2	100.0	87.2	97.2	30.6
UCF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.8	79.8	100.0	93.7	100.0	31.4
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.0	100.9	87.1	98.2	30.6
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	85.6	100.0	100.0	100.0	32.7
EUF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	98.2	20.8	0.0	12.8	2.8	69.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	98.3	20.2	0.0	6.3	0.0	68.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	6.5	2.8	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 7288 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.01.01 TO 05.08.29. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Mar 1974	Lifetime Generation:	118897.0 GW(e).h
Date of First Criticality:	30 Apr 1980	Cumulative Energy Availability Factor:	60.3%
Date of Grid Connection:	31 May 1980	Cumulative Load Factor:	60.0%
Date of Commercial Operation:	20 Feb 1981	Cumulative Unit Capability Factor:	61.3%
		Cumulative Energy Unavailability Factor:	39.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	4254.5	950.0	56.4	56.4	56.4	56.4	55.9	55.9	6213	77.5
1982	5042.8	950.0	60.9	58.7	60.9	58.7	60.6	58.3	6631	75.7
1983	6607.5	950.0	79.5	65.9	79.5	65.9	79.4	65.6	7716	88.1
1984	6979.6	950.0	83.4	70.4	83.4	70.4	83.6	70.2	7742	88.1
1985	6894.3	950.0	83.1	73.0	83.1	73.0	82.8	72.8	7979	91.1
1986	5523.8	950.0	66.0	71.8	65.9	71.8	66.4	71.7	6806	77.7
1987	7052.7	1000.0	81.8	73.3	81.8	73.3	80.5	73.0	7399	84.5
1988	3017.8	950.0	36.5	68.7	36.5	68.7	36.2	68.4	3439	39.2
1989	3308.9	950.0	40.9	65.6	40.9	65.6	39.8	65.2	3778	43.1
1990	3913.3	950.0	47.7	63.8	47.6	63.8	47.0	63.4	4715	53.8
1991	5878.2	950.0	71.5	64.5	71.5	64.5	70.6	64.0	6996	79.9
1992	3752.8	950.0	45.9	62.9	45.7	62.9	45.0	62.4	5244	59.7
1993	5935.4	950.0	73.8	63.8	72.6	63.6	71.3	63.1	7448	85.0
1994	2281.9	950.0	33.2	61.6	28.9	61.2	27.4	60.6	4288	48.9
1995	4753.7	950.0	63.9	61.7	57.5	60.9	57.1	60.3	6670	76.1
1996	3861.8	950.0	46.7	60.8	46.7	60.0	46.3	59.5	4759	54.2
1997	5949.3	950.0	71.7	61.4	71.4	60.7	71.5	60.2	6854	78.2
1998	3771.8	950.0	45.5	60.5	44.9	59.8	45.3	59.3	4457	50.9
1999	4845.4	950.0	61.2	60.6	58.7	59.8	58.2	59.3	6062	69.2
2000	5278.6	950.0	65.6	60.8	63.5	59.9	63.3	59.5	6479	73.8
2001	5984.6	950.0	73.2	61.4	72.3	60.5	71.9	60.1	7508	85.7
2002	6762.2	950.0	83.1	62.4	80.7	61.4	81.3	61.0	7430	84.8
2003	6951.2	950.0	84.5	63.4	83.1	62.4	83.5	62.0	7507	85.7
2004	3610.6	950.0	43.6	62.5	43.1	61.6	43.3	61.2	4032	45.9
2005	2544.3	950.0	31.4	61.3	30.6	60.3	30.6	60.0	2861	32.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		5899			672	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling				1272		
D. Inspection, maintenance or repair without refuelling				618		
Subtotal	0	5899	0	1890	673	0
Total		5899			2563	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	5772	155
12. Reactor I&C Systems	127	19
13. Reactor Auxiliary Systems		3
14. Safety Systems		3
15. Reactor Cooling Systems		58
16. Steam generation systems		305
31. Turbine and auxiliaries		6
32. Feedwater and Main Steam System		21
35. All other I&C Systems		4
41. Main Generator Systems		79
42. Electrical Power Supply Systems		4
XX. Miscellaneous Systems		9
Total	5899	666

RU-23 SMOLENSK-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 22200 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7354.1 GW(e).h
Energy Availability Factor: 90.6%
Load Factor: 90.7%
Operating Factor: 96.0%
Energy Unavailability Factor: 9.4%
Total Off-line Time: 347 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	239.2	600.9	631.4	665.0	673.2	630.6	658.1	664.5	646.8	650.3	640.8	653.3	7354.1
EAF (%)	37.2	95.8	91.2	98.8	97.1	94.6	95.5	96.2	97.0	94.6	96.1	94.8	90.6
UCF (%)	46.1	100.0	91.2	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.7
LF (%)	34.8	96.7	91.7	99.8	97.8	94.7	95.6	96.6	97.1	94.4	96.2	94.9	90.7
OF (%)	64.4	100.0	92.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.9	96.0
EUF (%)	62.8	4.2	8.8	1.2	2.9	5.4	4.5	3.8	3.0	5.4	3.9	5.2	9.4
PUF (%)	53.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
UCLF (%)	0.0	0.0	8.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
XUF (%)	8.9	4.2	0.0	1.2	2.8	5.4	4.5	3.8	3.0	5.4	3.9	5.2	4.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, MAY, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 13240 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.01.01 TO 05.01.12. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start:	01 Oct 1975	Lifetime Generation:	130091.0 GW(e).h
Date of First Criticality:	10 Sep 1982	Cumulative Energy Availability Factor:	70.9%
Date of Grid Connection:	09 Dec 1982	Cumulative Load Factor:	70.4%
Date of Commercial Operation:	30 Sep 1983	Cumulative Unit Capability Factor:	73.7%
		Cumulative Energy Unavailability Factor:	29.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	2275.4	925.0	99.7	99.7	99.7	99.7	84.0	84.0	2547	87.0
1984	6921.4	925.0	84.2	88.1	84.2	88.1	85.2	84.9	7830	89.1
1985	5850.2	925.0	74.9	82.4	72.4	81.4	72.2	79.5	6806	77.7
1986	3039.8	925.0	37.8	69.1	37.8	68.3	37.5	66.9	3472	39.6
1987	7445.8	1000.0	86.7	73.4	86.7	72.8	85.0	71.3	7620	87.0
1988	6695.6	925.0	81.9	75.0	81.9	74.5	82.4	73.4	7288	83.0
1989	6506.5	925.0	79.7	75.7	79.3	75.3	80.3	74.4	7177	81.9
1990	6227.8	925.0	76.6	75.8	76.1	75.4	76.9	74.8	6851	78.2
1991	6693.9	925.0	81.3	76.5	81.3	76.1	82.6	75.7	7252	82.8
1992	6849.4	925.0	83.7	77.2	83.7	76.9	84.3	76.6	7563	86.1
1993	6290.6	925.0	78.4	77.3	78.0	77.0	77.6	76.7	6993	79.8
1994	4217.8	925.0	71.0	76.8	57.8	75.3	52.1	74.6	6286	71.8
1995	5002.5	925.0	77.3	76.8	63.0	74.3	61.7	73.5	6390	72.9
1996	5666.4	925.0	71.7	76.5	71.6	74.1	69.7	73.2	6604	75.2
1997	4674.5	925.0	59.1	75.3	57.8	73.0	57.7	72.2	5366	61.3
1998	3554.1	925.0	58.8	74.2	45.0	71.2	43.9	70.3	5411	61.8
1999	6478.9	925.0	83.5	74.8	80.1	71.7	80.0	70.9	7417	84.7
2000	5228.5	925.0	64.4	74.2	63.8	71.3	64.3	70.5	5738	65.3
2001	5165.1	925.0	67.4	73.8	63.2	70.8	63.7	70.2	5940	67.8
2002	6866.7	925.0	85.1	74.4	83.7	71.5	84.7	70.9	7587	86.6
2003	6711.8	925.0	84.4	74.9	82.9	72.0	82.8	71.5	7533	86.0
2004	2337.1	925.0	29.1	72.7	28.5	70.0	28.8	69.5	2592	29.5
2005	7354.1	925.0	94.7	73.7	90.6	70.9	90.7	70.4	8414	96.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		58			76	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling				1113		
D. Inspection, maintenance or repair without refuelling				464		
G. Major back-fitting, refurbishment or upgrading activities without refuelling	266			281		20
Subtotal	266	58	0	1858	76	20
Total		324			1954	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		19
12. Reactor I&C Systems		18
13. Reactor Auxiliary Systems		13
14. Safety Systems	58	8
32. Feedwater and Main Steam System		13
42. Electrical Power Supply Systems		0
Total	58	71

RU-24 SMOLENSK-2

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
 Net Reference Unit Power
 at the beginning of 2005: 925.0 MW(e)
 Design Net Capacity: 925.0 MW(e)
 Design Discharge Burnup: 22200 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3053.4 GW(e).h
 Energy Availability Factor: 37.7%
 Load Factor: 37.7%
 Operating Factor: 42.6%
 Energy Unavailability Factor: 62.3%
 Total Off-line Time: 5026 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	573.8	566.0	86.9	0.0	0.0	0.0	0.0	0.0	0.0	596.4	580.6	649.7	3053.4
EAF (%)	83.2	90.5	14.1	0.0	0.0	0.0	0.0	0.0	0.0	86.6	87.2	94.0	37.7
UCF (%)	100.0	98.1	14.8	0.0	0.0	0.0	0.0	0.0	0.0	91.3	100.0	99.7	41.7
LF (%)	83.4	91.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0	86.7	87.2	94.4	37.7
OF (%)	100.0	100.0	16.4	0.0	0.0	0.0	0.0	0.0	0.0	98.4	100.0	100.0	42.6
EUf (%)	16.8	9.5	85.9	100.0	100.0	100.0	100.0	100.0	100.0	13.4	12.8	6.0	62.3
PUF (%)	0.0	0.0	85.2	100.0	100.0	100.0	100.0	100.0	100.0	8.7	0.0	0.0	58.1
UCLF (%)	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2
XUF (%)	16.8	7.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	4.7	12.8	5.7	4.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, OCTOBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 865 MWH. THE UNIT WAS IN THE OVERHAUL OUTAGE FROM 05.03.06 TO 05.10.01. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Jun 1976 Lifetime Generation: 121431.0 GW(e).h
 Date of First Criticality: 09 Apr 1985 Cumulative Energy Availability Factor: 72.9%
 Date of Grid Connection: 31 May 1985 Cumulative Load Factor: 72.7%
 Date of Commercial Operation: 02 Jul 1985 Cumulative Unit Capability Factor: 76.0%
 Cumulative Energy Unavailability Factor: 27.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	3308.1	925.0	90.6	90.6	81.3	81.3	81.0	81.0	4059	91.9
1986	6667.3	925.0	82.6	85.3	82.6	82.2	82.3	81.8	7442	85.0
1987	6364.9	1000.0	74.5	80.8	74.5	79.0	72.7	78.0	6707	76.6
1988	6757.2	925.0	83.6	81.5	83.5	80.2	83.2	79.4	7594	86.5
1989	6627.3	925.0	81.9	81.6	81.5	80.5	81.8	80.0	7336	83.7
1990	6710.6	925.0	83.0	81.9	82.5	80.9	82.8	80.5	7453	85.1
1991	5796.7	925.0	71.4	80.3	71.4	79.4	71.5	79.1	6495	74.1
1992	6731.6	925.0	83.9	80.7	82.6	79.8	82.9	79.6	7472	85.1
1993	6634.1	925.0	84.9	81.2	82.7	80.2	81.9	79.9	7492	85.5
1994	5259.8	925.0	80.2	81.1	66.6	78.8	64.9	78.3	7044	80.4
1995	5337.4	925.0	80.3	81.1	66.8	77.6	65.9	77.1	6738	76.9
1996	6127.7	925.0	79.1	80.9	77.8	77.6	75.4	77.0	7010	79.8
1997	4991.0	925.0	61.7	79.4	61.6	76.4	61.6	75.8	5642	64.4
1998	5297.0	925.0	73.9	79.0	65.6	75.6	65.4	75.0	6576	75.1
1999	5362.5	925.0	69.1	78.3	66.0	74.9	66.2	74.4	6090	69.5
2000	6566.1	925.0	80.5	78.4	80.1	75.3	80.8	74.8	7108	80.9
2001	6457.6	925.0	81.0	78.6	79.0	75.5	79.7	75.1	7537	86.0
2002	3431.1	925.0	43.6	76.6	41.7	73.6	42.3	73.2	3890	44.4
2003	6438.6	925.0	81.4	76.9	79.1	73.9	79.5	73.6	7734	88.3
2004	7480.1	925.0	93.7	77.7	90.9	74.7	92.1	74.5	8312	94.6
2005	3053.4	925.0	41.7	76.0	37.7	72.9	37.7	72.7	3734	42.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					65	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				916		
D. Inspection, maintenance or repair without refuelling				436		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				229		
G. Major back-fitting, refurbishment or upgrading activities without refuelling	5027					17
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	
Subtotal	5027	0	0	1581	70	19
Total	5027			1670		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		12
15. Reactor Cooling Systems		23
16. Steam generation systems		2
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		1
42. Electrical Power Supply Systems		17
Total	0	58

RU-67 SMOLENSK-3

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: LWGR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 925.0 MW(e)
Design Discharge Burnup: 22200 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7303.7 GW(e).h
Energy Availability Factor: 90.4%
Load Factor: 90.1%
Operating Factor: 93.5%
Energy Unavailability Factor: 9.6%
Total Off-line Time: 568 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	560.6	614.1	691.7	657.2	661.1	560.9	685.9	679.6	492.7	350.8	665.6	683.7	7303.7
EAF (%)	82.2	98.4	100.0	98.6	96.1	85.0	99.9	99.2	75.1	52.3	99.5	98.6	90.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	87.8	99.9	100.0	75.6	53.8	100.0	100.0	93.1
LF (%)	81.5	98.8	100.5	98.7	96.1	84.2	99.7	98.7	74.0	51.0	99.9	99.3	90.1
OF (%)	100.0	100.0	99.9	100.0	100.0	89.6	100.0	100.0	76.8	56.3	100.0	100.0	93.5
EUF (%)	17.8	1.6	0.0	1.4	3.9	15.0	0.1	0.8	24.9	47.7	0.5	1.4	9.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.4	46.2	0.0	0.0	5.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	12.2	0.1	0.0	0.0	0.0	0.0	0.0	1.0
XUF (%)	17.8	1.6	0.0	1.4	3.9	2.8	0.0	0.8	0.4	1.5	0.5	1.4	2.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 21748 MWH. THE UNIT WAS IN THE ROUTINE MAINTENANCE OUTAGE FROM 05.09.24 TO 05.10.14. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 May 1984
Date of First Criticality: 01 Dec 1989
Date of Grid Connection: 17 Jan 1990
Date of Commercial Operation: 12 Oct 1990

Lifetime Generation: 101097.0 GW(e).h
Cumulative Energy Availability Factor: 79.6%
Cumulative Load Factor: 79.5%
Cumulative Unit Capability Factor: 82.7%
Cumulative Energy Unavailability Factor: 20.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	2066.9	925.0	99.1	99.1	99.1	99.1	101.2	101.2	2208	100.0
1991	6561.7	925.0	80.9	84.5	80.9	84.5	81.0	85.0	7338	83.8
1992	6866.6	925.0	83.9	84.3	83.9	84.3	84.5	84.8	7515	85.6
1993	6596.0	925.0	82.6	83.8	81.4	83.4	81.4	83.8	7419	84.7
1994	5513.7	925.0	82.3	83.4	72.5	80.8	68.0	80.1	6701	76.5
1995	5091.0	925.0	78.2	82.4	63.2	77.5	62.8	76.8	5844	66.7
1996	6496.6	925.0	82.2	82.4	80.8	78.0	80.0	77.3	7268	82.7
1997	5559.3	925.0	69.3	80.6	69.3	76.8	68.6	76.1	6469	73.8
1998	4575.9	925.0	68.9	79.2	57.5	74.5	56.5	73.7	6162	70.3
1999	6411.0	925.0	79.3	79.2	78.2	74.9	79.1	74.3	7063	80.6
2000	6970.5	925.0	84.7	79.7	84.6	75.8	85.8	75.4	7542	85.9
2001	6951.7	925.0	87.3	80.4	85.4	76.7	85.8	76.3	7823	89.3
2002	7204.9	925.0	88.7	81.1	87.7	77.6	88.9	77.4	7831	89.4
2003	7038.2	925.0	87.1	81.5	86.3	78.2	86.9	78.1	7697	87.9
2004	7085.7	925.0	87.9	82.0	86.9	78.8	87.2	78.7	7765	88.4
2005	7303.7	925.0	93.1	82.7	90.4	79.6	90.1	79.5	8192	93.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		75			63	
C. Inspection, maintenance or repair combined with refuelling				857		
D. Inspection, maintenance or repair without refuelling	494			434		
G. Major back-fitting, refurbishment or upgrading activities without refuelling						100
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					33	
Subtotal	494	75	0	1291	96	100
Total		569			1487	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		6
21. Fuel Handling and Storage Facilities		23
35. All other I&C Systems		7
41. Main Generator Systems		3
42. Electrical Power Supply Systems	75	3
99. No System Code		8
Total	75	61

SK-2 BOHUNICE-1

Operator: EBO (ELECTROSTATION BOHUNICE)

Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 408.0 MW(e)
 Design Net Capacity: 381.0 MW(e)
 Design Discharge Burnup: 35000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2321.8 GW(e).h
 Energy Availability Factor: 67.5%
 Load Factor: 65.0%
 Operating Factor: 71.8%
 Energy Unavailability Factor: 32.5%
 Total Off-line Time: 2466 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	286.2	197.3	0.0	0.0	0.0	189.3	278.6	265.1	270.5	277.2	277.0	280.7	2321.8
EAF (%)	98.3	73.9	0.1	-0.1	0.0	70.4	94.3	91.5	96.4	94.0	95.5	95.8	67.5
UCF (%)	100.0	89.3	0.1	-0.1	0.0	73.6	99.8	96.6	100.0	97.8	97.5	97.7	70.9
LF (%)	94.3	72.0	0.0	0.0	0.0	64.4	91.8	87.3	92.1	91.2	94.3	92.5	65.0
OF (%)	100.0	90.0	0.0	0.0	0.0	78.3	100.0	97.4	100.0	100.0	100.0	97.7	71.8
EUF (%)	1.7	26.1	99.9	100.1	100.0	29.6	5.7	8.5	3.6	6.0	4.5	4.2	32.5
PUF (%)	0.0	10.3	99.9	100.1	22.6	0.0	0.2	3.4	0.0	0.0	0.0	0.0	19.7
UCLF (%)	0.0	0.3	0.0	0.0	77.4	26.4	0.0	0.0	0.0	2.3	2.5	2.3	9.4
XUF (%)	1.7	15.4	0.0	0.0	0.0	3.3	5.6	5.1	3.6	3.7	2.0	1.9	3.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 24 Apr 1972 Lifetime Generation: 68603.2 GW(e).h
 Date of First Criticality: 27 Nov 1978 Cumulative Energy Availability Factor: 72.6%
 Date of Grid Connection: 17 Dec 1978 Cumulative Load Factor: 71.6%
 Date of Commercial Operation: 01 Apr 1980 Cumulative Unit Capability Factor: 76.1%
 Cumulative Energy Unavailability Factor: 27.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	1678.6	398.0	66.0	66.0	66.0	66.0	63.9	63.9	4627	70.1
1981	2206.8	398.0	63.1	64.3	63.1	64.3	63.3	63.6	6441	73.5
1982	2756.8	398.0	80.1	70.1	80.1	70.1	79.1	69.2	7513	85.8
1983	2754.1	398.0	78.9	72.4	78.9	72.4	79.0	71.8	7184	82.0
1984	3229.6	408.0	89.8	76.2	89.8	76.2	90.1	75.7	8449	96.2
1985	2445.7	408.0	72.0	75.4	72.0	75.4	68.4	74.4	6485	74.0
1986	2486.0	408.0	70.5	74.7	70.5	74.7	69.6	73.7	6874	78.5
1987	2701.7	408.0	78.1	75.1	77.3	75.0	75.6	74.0	7251	82.8
1988	2061.6	408.0	56.5	73.0	56.4	72.9	57.5	72.1	5280	60.1
1989	2846.6	408.0	80.2	73.7	80.1	73.6	79.6	72.8	7229	82.5
1990	2776.5	408.0	80.7	74.4	80.0	74.2	77.7	73.3	7435	84.9
1991	2839.5	408.0	82.3	75.0	81.4	74.8	79.4	73.8	7507	85.7
1992	2491.9	408.0	66.2	74.3	64.4	74.0	69.5	73.5	6118	69.6
1993	2307.7	408.0	67.1	73.8	64.6	73.3	64.6	72.8	6021	68.7
1994	2852.0	405.0	84.6	74.6	79.2	73.7	80.4	73.3	7594	86.7
1995	3002.2	408.0	82.7	75.1	81.3	74.2	84.0	74.0	7549	86.2
1996	2667.9	436.0	80.3	75.4	72.0	74.1	69.7	73.7	7182	81.8
1997	2426.0	408.0	73.7	75.3	63.2	73.5	67.9	73.4	6338	72.4
1998	2088.1	408.0	65.6	74.8	60.5	72.8	58.4	72.6	6015	68.7
1999	2268.9	408.0	86.2	75.4	63.4	72.3	63.5	72.2	6573	75.0
2000	1949.2	408.0	59.5	74.6	54.8	71.4	54.4	71.3	5422	61.7
2001	2397.2	408.0	77.4	74.7	68.0	71.3	67.1	71.1	7056	80.5
2002	2752.5	408.0	86.6	75.2	82.9	71.8	77.0	71.4	7634	87.1
2003	2765.3	408.0	88.1	75.8	84.1	72.3	77.4	71.6	7816	89.2
2004	2775.8	408.0	88.2	76.3	83.3	72.8	77.5	71.8	7927	90.2
2005	2321.8	408.0	70.9	76.1	67.5	72.6	65.0	71.6	6294	71.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		749			108	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	1698			1335		
D. Inspection, maintenance or repair without refuelling				145		
E. Testing of plant systems or components	19			8		
H. Nuclear regulatory requirements				2		
J. Grid failure or grid unavailability						40
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				26		5
Subtotal	1717	749	0	1516	111	45
Total		2466			1672	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	732	23
12. Reactor I&C Systems	17	5
15. Reactor Cooling Systems		15
16. Steam generation systems		47
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		3
32. Feedwater and Main Steam System		8
41. Main Generator Systems		0
42. Electrical Power Supply Systems		3
Total	749	105

SK-3 BOHUNICE-2

Operator: EBO (ELECTROSTATION BOHUNICE)

Contractor: AEE (ATOMENERGOEXPORT)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 408.0 MW(e)
 Design Net Capacity: 381.0 MW(e)
 Design Discharge Burnup: 35000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2821.6 GW(e).h
 Energy Availability Factor: 82.7%
 Load Factor: 78.9%
 Operating Factor: 85.4%
 Energy Unavailability Factor: 17.3%
 Total Off-line Time: 1278 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	283.9	259.7	161.9	199.1	291.9	249.4	278.6	274.4	15.0	240.0	282.0	285.6	2821.6
EAF (%)	99.4	99.6	58.0	73.1	97.6	96.2	94.6	91.2	5.5	81.0	98.3	97.9	82.7
UCF (%)	100.0	100.0	58.2	74.3	100.0	100.0	100.0	100.0	6.9	83.2	100.0	99.6	85.2
LF (%)	93.5	94.7	53.3	67.9	96.2	84.9	91.8	90.4	5.1	79.0	96.0	94.1	78.9
OF (%)	100.0	100.0	57.3	75.5	100.0	100.0	100.0	100.0	7.4	84.3	100.0	100.0	85.4
EUF (%)	0.6	0.4	42.0	26.9	2.4	3.8	5.4	8.8	94.5	19.0	1.7	2.1	17.3
PUF (%)	0.0	0.0	41.8	25.8	0.0	0.0	0.0	0.0	93.1	16.8	0.0	0.0	14.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
XUF (%)	0.6	0.4	0.2	1.1	2.4	3.8	5.4	8.8	1.4	2.2	1.7	1.7	2.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 24 Apr 1972 Lifetime Generation: 68231.2 GW(e).h
 Date of First Criticality: 15 Mar 1980 Cumulative Energy Availability Factor: 74.7%
 Date of Grid Connection: 26 Mar 1980 Cumulative Load Factor: 74.2%
 Date of Commercial Operation: 01 Jan 1981 Cumulative Unit Capability Factor: 76.8%
 Cumulative Energy Unavailability Factor: 25.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	2524.9	382.0	72.9	72.9	72.9	72.9	75.5	75.5	7325	83.6
1982	2657.3	398.0	77.4	75.2	77.4	75.2	76.2	75.8	6878	78.5
1983	2946.6	398.0	84.8	78.4	84.8	78.4	84.5	78.8	7610	86.9
1984	2782.6	408.0	76.2	77.9	76.2	77.9	77.6	78.5	7304	83.2
1985	2444.7	408.0	72.6	76.8	72.3	76.7	68.4	76.4	6656	76.0
1986	2833.0	408.0	80.3	77.4	80.3	77.3	79.3	76.9	7482	85.4
1987	2902.4	408.0	86.8	78.7	82.9	78.1	81.2	77.5	7833	89.4
1988	2947.5	408.0	84.2	79.4	84.0	78.9	82.2	78.1	7757	88.3
1989	2637.8	408.0	73.8	78.8	73.6	78.3	73.8	77.6	6831	78.0
1990	2683.0	408.0	76.7	78.6	76.1	78.1	75.1	77.4	6939	79.2
1991	2583.5	408.0	72.6	78.0	72.1	77.5	72.3	76.9	6673	76.2
1992	2704.5	408.0	73.8	77.7	70.3	76.9	75.5	76.8	6774	77.1
1993	2057.4	408.0	59.3	76.2	57.6	75.4	57.6	75.3	5433	62.0
1994	2761.8	405.0	80.8	76.6	77.7	75.6	77.8	75.5	7371	84.1
1995	2989.5	408.0	83.7	77.0	79.8	75.9	83.6	76.0	6929	79.1
1996	2712.6	436.0	74.7	76.9	72.3	75.6	70.8	75.7	6705	76.3
1997	2321.0	408.0	62.8	76.1	60.4	74.7	64.9	75.0	5698	65.0
1998	1839.2	408.0	53.9	74.8	52.3	73.5	51.5	73.7	4886	55.8
1999	2278.3	408.0	68.0	74.5	63.9	73.0	63.7	73.2	6125	69.9
2000	2527.5	408.0	76.3	74.6	71.1	72.9	70.5	73.1	6715	76.4
2001	2899.3	408.0	88.3	75.2	81.8	73.3	81.1	73.5	7793	89.0
2002	2855.1	408.0	87.7	75.8	84.2	73.8	79.9	73.7	7713	88.0
2003	2614.9	408.0	80.0	76.0	76.6	73.9	73.2	73.7	7081	80.8
2004	2861.8	408.0	88.0	76.5	84.5	74.4	79.9	74.0	7977	90.8
2005	2821.6	408.0	85.2	76.8	82.7	74.7	78.9	74.2	7482	85.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					68	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	784			1305		
D. Inspection, maintenance or repair without refuelling	488			294		
E. Testing of plant systems or components				4		
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
Subtotal	1272	0	0	1603	69	1
Total	1272			1673		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		12
12. Reactor I&C Systems		1
13. Reactor Auxiliary Systems		15
14. Safety Systems		1
15. Reactor Cooling Systems		1
16. Steam generation systems		5
17. Safety I&C Systems (excluding reactor I&C)		14
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		5
35. All other I&C Systems		1
42. Electrical Power Supply Systems		8
Total	0	64

RU-59 VOLGODONSK-1

Operator: REA (ROSENERGOATOM, CONSORTIUM)

Contractor: FAEA (Federal Atomic Energy Agency)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7232.9 GW(e).h
Energy Availability Factor: 85.9%
Load Factor: 86.9%
Operating Factor: 87.1%
Energy Unavailability Factor: 14.1%
Total Off-line Time: 1133 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	628.3	648.5	716.5	197.4	89.8	686.5	716.6	712.7	696.9	726.6	697.1	715.9	7232.9
EAFF (%)	88.6	99.9	100.0	29.6	14.5	98.7	100.0	100.0	100.0	100.0	99.8	100.0	85.9
UCF (%)	94.3	100.0	100.0	30.1	19.2	99.6	100.0	100.0	100.0	100.0	100.0	100.0	86.9
LF (%)	88.9	101.6	101.4	28.9	12.7	100.4	101.4	100.8	101.9	102.7	101.9	101.3	86.9
OF (%)	94.6	100.0	99.9	30.3	20.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.1
EUF (%)	11.4	0.1	0.0	70.4	85.5	1.3	0.0	0.0	0.0	0.0	0.2	0.0	14.1
PUF (%)	0.0	0.0	0.0	69.9	80.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6
UCLF (%)	5.7	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.5
XUF (%)	5.6	0.1	0.0	0.5	4.7	0.9	0.0	0.0	0.0	0.0	0.2	0.0	1.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE RUSSIAN NPPS ARE OPERATING IN THE BASELOAD MODE AGREED WITH THE FEDERAL TARIFFS SERVICE. UNIT OPERATION AT POWER LEVEL ABOVE INSTALLED CAPACITY TOOK PLACE IN JANUARY, FEBRUARY, MARCH, JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER. ADDITIONAL ELECTRICITY GENERATION AMOUNTED TO 81897 MWH. THE UNIT WAS IN THE INTERMEDIATE MAINTENANCE OUTAGE FROM 05.04.10 TO 05.05.25. RADIONUCLIDES CONTENT IN THE MONITORED ENVIRONMENTAL OBJECTS IN THE PLANT VICINITY WAS ON THE LEVEL OF AVERAGE BACKGROUND VALUES TYPICAL FOR THE EUROPEAN PART OF THE RUSSIAN FEDERATION.

5. Historical Summary

Date of Construction Start: 01 Sep 1981
Date of First Criticality: 23 Feb 2001
Date of Grid Connection: 30 Mar 2001
Date of Commercial Operation: 25 Dec 2001

Lifetime Generation: 32793.0 GW(e).h
Cumulative Energy Availability Factor: 84.8%
Cumulative Load Factor: 86.5%
Cumulative Unit Capability Factor: 85.7%
Cumulative Energy Unavailability Factor: 15.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2001			Data not provided							
2002	7176.2	950.0	85.5	85.5	84.1	84.1	86.2	86.2	7543	86.1
2003	6973.9	950.0	82.6	84.0	81.3	82.7	83.8	85.0	7154	81.7
2004	7439.3	950.0	88.0	85.3	87.8	84.4	89.1	86.4	7766	88.4
2005	7232.9	950.0	86.9	85.7	85.9	84.8	86.9	86.5	7628	87.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2002 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure C. Inspection, maintenance or repair combined with refuelling	1092	40		865	70	
Subtotal	1092	40	0	865	70	0
Total	1132			935		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2002 to 2005 Average Hours Lost Per Year
17. Safety I&C Systems (excluding reactor I&C)		8
33. Circulating Water System	40	
41. Main Generator Systems		59
42. Electrical Power Supply Systems		3
Total	40	70

SK-13 BOHUNICE-3

Operator: EBO (ELECTROSTATION BOHUNICE)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 408.0 MW(e)
 Design Net Capacity: 420.0 MW(e)
 Design Discharge Burnup: 35000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2587.7 GW(e).h
 Energy Availability Factor: 76.7%
 Load Factor: 72.4%
 Operating Factor: 80.3%
 Energy Unavailability Factor: 23.3%
 Total Off-line Time: 1726 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	273.9	255.8	280.0	266.6	266.3	266.0	0.0	0.0	176.9	280.6	243.5	278.2	2587.7
EAF (%)	98.6	98.6	97.8	95.6	95.5	92.1	0.0	0.0	64.2	95.2	88.3	97.7	76.7
UCF (%)	100.0	100.0	100.0	100.0	100.0	96.9	0.0	0.0	68.6	100.0	91.1	100.0	79.4
LF (%)	90.2	93.3	92.2	90.9	87.7	90.5	0.0	0.0	60.2	92.3	82.9	91.6	72.4
OF (%)	100.0	100.0	99.9	100.1	100.0	97.4	0.0	0.0	69.6	100.0	100.0	100.0	80.3
EUF (%)	1.4	1.4	2.2	4.4	4.5	7.9	100.0	100.0	35.8	4.8	11.7	2.3	23.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	3.1	100.0	100.0	31.4	0.0	0.0	0.0	19.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.7
XUF (%)	1.4	1.4	2.2	4.4	4.5	4.8	0.0	0.0	4.3	4.8	2.8	2.3	2.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Dec 1976
 Date of First Criticality: 07 Aug 1984
 Date of Grid Connection: 20 Aug 1984
 Date of Commercial Operation: 14 Feb 1985

Lifetime Generation: 58046.8 GW(e).h
 Cumulative Energy Availability Factor: 77.5%
 Cumulative Load Factor: 75.8%
 Cumulative Unit Capability Factor: 80.9%
 Cumulative Energy Unavailability Factor: 22.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	2435.0	408.0	76.8	76.8	76.8	76.8	74.5	74.5	6322	78.9
1986	2674.1	408.0	75.4	76.1	75.4	76.1	74.8	74.6	7089	80.9
1987	1997.4	408.0	55.5	69.0	53.7	68.4	55.9	68.2	5181	59.1
1988	2866.9	408.0	80.2	71.9	79.9	71.3	80.0	71.2	7329	83.4
1989	2992.3	408.0	85.0	74.6	84.1	73.9	83.7	73.8	7633	87.1
1990	2829.1	408.0	80.5	75.6	79.2	74.8	79.2	74.7	7376	84.2
1991	2585.6	408.0	74.2	75.4	71.9	74.4	72.3	74.3	6717	76.7
1992	3140.7	408.0	83.9	76.4	82.8	75.5	87.6	76.0	7528	85.7
1993	2973.1	408.0	86.5	77.6	83.2	76.3	83.2	76.8	7721	88.1
1994	2806.8	405.0	84.0	78.2	79.1	76.6	79.1	77.1	7423	84.7
1995	2536.7	408.0	78.1	78.2	70.1	76.0	71.0	76.5	6440	73.5
1996	3045.9	436.0	85.6	78.9	82.5	76.6	79.5	76.8	7504	85.4
1997	3096.4	440.0	87.7	79.6	84.0	77.2	80.3	77.1	7711	88.0
1998	2804.6	408.0	85.3	80.0	81.8	77.5	78.5	77.2	7571	86.4
1999	2468.5	408.0	76.5	79.8	69.7	77.0	69.1	76.6	6620	75.6
2000	2806.7	408.0	87.9	80.3	79.8	77.2	78.3	76.7	7776	88.5
2001	2687.0	408.0	86.6	80.7	76.5	77.1	75.2	76.6	7680	87.7
2002	2690.7	408.0	87.4	81.0	83.9	77.5	75.3	76.6	7711	88.0
2003	2485.0	408.0	78.3	80.9	75.5	77.4	69.5	76.2	6908	78.9
2004	2564.5	408.0	82.0	80.9	79.0	77.5	71.6	76.0	7228	82.3
2005	2587.7	408.0	79.4	80.9	76.7	77.5	72.4	75.8	7034	80.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					69	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1727			1217		
D. Inspection, maintenance or repair without refuelling				156		
J. Grid failure or grid unavailability						8
Subtotal	1727	0	0	1373	69	8
Total		1727			1450	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		6
14. Safety Systems		1
15. Reactor Cooling Systems		17
16. Steam generation systems		17
17. Safety I&C Systems (excluding reactor I&C)		1
32. Feedwater and Main Steam System		12
33. Circulating Water System		1
41. Main Generator Systems		0
42. Electrical Power Supply Systems		7
Total	0	65

SK-14 BOHUNICE-4

Operator: EBO (ELECTROSTATION BOHUNICE)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 408.0 MW(e)

Design Net Capacity: 398.0 MW(e)

Design Discharge Burnup: 35000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2841.0 GW(e).h

Energy Availability Factor: 84.3%

Load Factor: 79.5%

Operating Factor: 87.6%

Energy Unavailability Factor: 15.7%

Total Off-line Time: 1089 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	274.5	261.2	289.8	279.4	63.2	65.7	268.7	257.4	259.1	273.2	273.5	275.4	2841.0
EAF (%)	98.3	99.1	98.1	95.7	21.4	24.2	95.4	95.4	93.9	95.3	97.4	98.1	84.3
UCF (%)	99.7	100.0	100.0	100.0	22.8	26.0	100.0	100.0	99.7	100.0	99.8	100.0	87.3
LF (%)	90.4	95.3	95.5	95.2	20.8	22.3	88.5	84.8	88.2	89.9	93.1	90.7	79.5
OF (%)	100.0	100.0	99.9	100.1	23.1	28.2	100.0	100.0	100.0	100.0	100.0	100.0	87.6
EUF (%)	1.7	0.9	1.9	4.3	78.6	75.8	4.6	4.6	6.1	4.7	2.6	1.9	15.7
PUF (%)	0.0	0.0	0.0	0.0	77.3	74.0	0.0	0.0	0.0	0.0	0.2	0.0	12.7
UCLF (%)	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
XUF (%)	1.4	0.9	1.9	4.3	1.3	1.9	4.6	4.6	5.8	4.7	2.4	1.9	3.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Dec 1976 Lifetime Generation: 56931.6 GW(e).h

Date of First Criticality: 02 Aug 1985 Cumulative Energy Availability Factor: 79.2%

Date of Grid Connection: 09 Aug 1985 Cumulative Load Factor: 77.6%

Date of Commercial Operation: 18 Dec 1985 Cumulative Unit Capability Factor: 82.7%

 Cumulative Energy Unavailability Factor: 20.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	298.1	408.0	100.0	100.0	100.0	100.0	98.2	98.2	744	100.0
1986	2887.9	408.0	81.0	82.5	81.0	82.5	80.8	82.2	7294	83.3
1987	3084.7	408.0	86.6	84.5	86.1	84.2	86.3	84.2	7783	88.8
1988	2786.5	408.0	78.0	82.4	77.8	82.1	77.7	82.1	7248	82.5
1989	2827.7	408.0	80.0	81.8	79.2	81.4	79.1	81.3	7548	86.2
1990	2873.8	408.0	82.0	81.8	80.7	81.3	80.4	81.2	7427	84.8
1991	2850.5	408.0	82.9	82.0	80.4	81.1	79.8	80.9	7438	84.9
1992	2711.9	408.0	73.3	80.8	70.4	79.6	75.7	80.2	6714	76.4
1993	2847.6	408.0	82.6	81.0	79.7	79.6	79.7	80.1	7341	83.8
1994	2791.4	405.0	83.9	81.3	78.7	79.5	78.7	80.0	7389	84.3
1995	2823.7	408.0	88.5	82.0	79.3	79.5	79.0	79.9	7211	82.3
1996	2834.9	436.0	79.2	81.8	76.1	79.2	74.0	79.3	6953	79.2
1997	2953.5	440.0	84.7	82.0	80.2	79.3	76.6	79.1	7469	85.3
1998	2822.4	408.0	85.7	82.3	82.4	79.5	79.0	79.1	7525	85.9
1999	2656.5	408.0	81.7	82.2	75.1	79.2	74.3	78.7	7283	83.1
2000	2431.9	408.0	76.3	81.9	68.9	78.5	67.9	78.0	6791	77.3
2001	2793.3	408.0	86.7	82.2	79.2	78.6	78.2	78.0	7721	88.1
2002	2823.2	408.0	87.9	82.5	85.0	78.9	79.0	78.1	7742	88.4
2003	2814.9	408.0	87.8	82.8	84.4	79.2	78.8	78.1	7737	88.3
2004	2390.9	408.0	77.0	82.5	74.4	79.0	66.7	77.5	6786	77.3
2005	2841.0	408.0	87.3	82.7	84.3	79.2	79.5	77.6	7671	87.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					47	
C. Inspection, maintenance or repair combined with refuelling	1089			1138		
D. Inspection, maintenance or repair without refuelling				70		
E. Testing of plant systems or components				1		
J. Grid failure or grid unavailability						0
L. Human factor related					0	
Subtotal	1089	0	0	1209	47	0
Total	1089			1256		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
15. Reactor Cooling Systems		0
16. Steam generation systems		27
17. Safety I&C Systems (excluding reactor I&C)		5
32. Feedwater and Main Steam System		5
33. Circulating Water System		0
42. Electrical Power Supply Systems		0
XX. Miscellaneous Systems		1
Total	0	44

SK-6 MOCHOVCE-1

Operator: EMO (ELECTROSTATION MOCHOVCE)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 405.0 MW(e)

Design Net Capacity: 387.0 MW(e)

Design Discharge Burnup: 31000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2712.6 GW(e).h

Energy Availability Factor: 80.3%

Load Factor: 76.5%

Operating Factor: 81.4%

Energy Unavailability Factor: 19.7%

Total Off-line Time: 1632 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	254.5	243.7	280.6	61.8	0.0	125.3	288.6	270.7	284.2	303.1	296.3	303.7	2712.6
EAF (%)	100.0	100.0	99.2	23.0	0.0	45.5	97.2	99.2	99.8	100.0	100.0	100.0	80.3
UCF (%)	100.0	100.0	99.9	26.6	0.0	45.7	97.6	99.3	100.0	100.0	100.0	100.0	80.8
LF (%)	84.4	89.5	93.1	21.2	0.0	43.0	95.8	89.8	97.5	100.5	101.6	100.8	76.5
OF (%)	100.0	100.0	99.9	26.8	0.0	49.9	100.0	100.0	100.0	100.0	100.0	100.0	81.4
EUF (%)	0.0	0.0	0.8	77.0	100.0	54.5	2.8	0.8	0.2	0.0	0.0	0.0	19.7
PUF (%)	0.0	0.0	0.0	73.4	100.0	54.3	1.5	0.7	0.0	0.0	0.0	0.0	19.2
UCLF (%)	0.0	0.0	0.1	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.1
XUF (%)	0.0	0.0	0.7	3.6	0.0	0.2	0.4	0.1	0.2	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE GENERAL PERFORMANCE AND OPERATIONAL MODE OF THE PLANT - 1. EMO UNIT WAS OPERATED LARGELY AT FULL POWER IN A BASE LOAD MODE. A LOAD-FOLLOWING HAS BEEN REQUIRED BY DISPATCHER FOR A PERIOD. A NEW GRID SUPPORTING TOOL FOR LOAD FOLLOWING WAS REALIZED - SECONDARY POWER CONTROL FOR GRID ADJUSTMENT. OVER THE REPORTING PERIOD THERE WERE A FEW HOURS OF UNPLANNED REACTOR POWER LIMITATION AND NO REACTOR SCRAMS. OTHER FACTORS AFFECTING ENERGY GENERATION OVER THE REPORTING PERIOD WERE TEMPERATURE OF COOLING WATER (ENVIRONMENTAL CONDITIONS) AND FUEL COAST-DOWN OPERATION.

5. Historical Summary

Date of Construction Start: 01 Oct 1983 Lifetime Generation: 19995.0 GW(e).h

Date of First Criticality: 09 Jun 1998 Cumulative Energy Availability Factor: 78.9%

Date of Grid Connection: 04 Jul 1998 Cumulative Load Factor: 77.0%

Date of Commercial Operation: 29 Oct 1998 Cumulative Unit Capability Factor: 82.6%

 Cumulative Energy Unavailability Factor: 21.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1998	784.8	408.0	97.9	97.9	96.7	96.7	87.1	87.1	2189	99.1
1999	2376.1	404.0	70.4	76.0	65.8	72.1	67.1	71.2	6397	73.0
2000	2816.9	404.0	90.0	82.2	79.4	75.3	79.4	74.8	8311	94.6
2001	2423.6	404.0	75.0	80.0	68.1	73.1	68.5	72.9	6648	75.9
2002	2914.8	405.0	86.3	81.5	83.3	75.5	82.2	75.1	7628	87.1
2003	2796.6	405.0	83.0	81.8	82.3	76.8	78.8	75.8	7324	83.6
2004	2996.0	405.0	88.6	82.8	88.1	78.6	84.2	77.1	7801	88.8
2005	2712.6	405.0	80.8	82.6	80.3	78.9	76.5	77.0	7128	81.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1998 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					73	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	1632			881		
D. Inspection, maintenance or repair without refuelling				51		
H. Nuclear regulatory requirements				35		
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					9	
L. Human factor related					1	
Subtotal	1632	0	0	967	87	2
Total	1632			1056		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1998 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		47
12. Reactor I&C Systems		8
16. Steam generation systems		1
17. Safety I&C Systems (excluding reactor I&C)		6
42. Electrical Power Supply Systems		10
Total	0	72

SK-7 MOCHOVCE-2

Operator: EMO (ELECTROSTATION MOCHOVCE)

Contractor: SKODA (SKODA CONCERN NUCLEAR POWER PLANT WORKS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 405.0 MW(e)
Design Net Capacity: 387.0 MW(e)
Design Discharge Burnup: 31000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3050.9 GW(e).h
Energy Availability Factor: 88.5%
Load Factor: 86.0%
Operating Factor: 90.2%
Energy Unavailability Factor: 11.5%
Total Off-line Time: 860 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	294.8	269.0	264.8	274.5	295.8	287.4	291.6	290.6	284.2	57.4	168.5	272.3	3050.9
EAF (%)	100.0	100.0	99.8	100.0	99.2	98.9	97.9	98.2	97.1	19.8	58.6	94.0	88.5
UCF (%)	100.0	100.0	99.8	100.0	100.0	100.0	99.9	100.0	99.9	22.3	58.8	94.0	89.5
LF (%)	97.8	98.8	87.9	94.3	98.2	98.6	96.8	96.4	97.5	19.0	57.8	90.4	86.0
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	100.0	100.0	100.0	22.7	62.5	98.1	90.2
EUF (%)	0.0	0.0	0.2	0.0	0.8	1.1	2.1	1.8	2.9	80.2	41.4	6.0	11.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.7	41.2	1.0	10.1
UCLF (%)	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	5.0	0.5
XUF (%)	0.0	0.0	0.0	0.0	0.8	1.0	2.0	1.8	2.8	2.5	0.2	0.0	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE GENERAL PERFORMANCE AND OPERATIONAL MODE OF THE PLANT - 2. EMO UNIT WAS OPERATED LARGELY AT FULL POWER IN A BASE LOAD MODE. A LOAD-FOLLOWING HAS BEEN REQUIRED BY DISPATCHER FOR A PERIOD. A NEW GRID SUPPORTING TOOL FOR LOAD FOLLOWING WAS REALIZED - SECONDARY POWER CONTROL FOR GRID ADJUSTMENT. OVER THE REPORTING PERIOD THERE WERE A FEW HOURS OF UNPLANNED TURBINES SCRAMS (START OF LOAD SEQUENCER LOGIC DUE TO FALSE TRANSFORMER PROTECTION ACTUATION AND FAILURE OF THE LOW VOLTAGE PLANT POWER SUPPLY SYSTEMS DURING THE TEST OF THE LUBRICATION OIL MANOSTATS). DURING THE YEAR THERE WERE NO REACTOR SCRAMS. OTHER FACTORS AFFECTING ENERGY GENERATION OVER THE REPORTING PERIOD ARE LIMITATIONS DUE TO FUEL MANAGEMENT AND ENVIRONMENTAL CONDITIONS (TEMPERATURE OF COOLING WATER).

5. Historical Summary

Date of Construction Start: 01 Oct 1983 **Lifetime Generation:** 15742.0 GW(e).h
Date of First Criticality: 01 Dec 1999 **Cumulative Energy Availability Factor:** 81.2%
Date of Grid Connection: 20 Dec 1999 **Cumulative Load Factor:** 75.0%
Date of Commercial Operation: 11 Apr 2000 **Cumulative Unit Capability Factor:** 83.8%
Cumulative Energy Unavailability Factor: 18.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2000	2222.5	404.0	91.6	91.6	87.9	87.9	83.3	83.3	5912	89.6
2001	2540.9	404.0	78.2	83.9	72.1	78.9	71.8	76.8	6967	79.5
2002	2498.4	405.0	76.0	81.0	71.7	76.3	70.4	74.5	6862	78.3
2003	2964.9	405.0	87.8	82.9	87.4	79.2	83.6	76.9	7729	88.2
2004	2034.5	405.0	81.6	82.6	81.4	79.7	57.2	72.7	7210	82.1
2005	3050.9	405.0	89.5	83.8	88.5	81.2	86.0	75.0	7900	90.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2000 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		25			82	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	846			877		
D. Inspection, maintenance or repair without refuelling				159		
L. Human factor related					5	
Subtotal	846	25	0	1036	87	0
Total		871			1123	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2000 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		11
15. Reactor Cooling Systems		55
16. Steam generation systems		7
41. Main Generator Systems		9
42. Electrical Power Supply Systems	25	
Total	25	82

SI-1 KRSKO

Operator: NEK (NUKLEARNA ELEKTRARNA KRSKO)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 656.0 MW(e)
Design Net Capacity: 632.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5613.7 GW(e).h
Energy Availability Factor: 98.3%
Load Factor: 97.7%
Operating Factor: 98.9%
Energy Unavailability Factor: 1.7%
Total Off-line Time: 96 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	491.7	447.4	494.1	442.5	495.3	457.6	492.3	444.5	480.5	448.0	472.6	447.1	5613.7
EAF (%)	100.0	100.0	100.0	91.9	100.0	96.9	100.0	91.1	100.0	100.0	100.0	100.0	98.3
UCF (%)	100.0	100.0	100.0	91.9	100.0	98.0	100.0	92.6	100.0	100.0	100.0	100.0	98.5
LF (%)	100.7	101.5	101.2	93.8	101.5	96.9	100.9	91.1	101.7	91.7	100.1	91.6	97.7
OF (%)	100.0	100.0	100.0	93.5	100.0	100.0	100.0	93.5	100.0	99.9	100.0	100.0	98.9
EUF (%)	0.0	0.0	0.0	8.1	0.0	3.1	0.0	8.9	0.0	0.0	0.0	0.0	1.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	8.1	0.0	2.0	0.0	7.4	0.0	0.0	0.0	0.0	1.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.5	0.0	0.0	0.0	0.0	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE POWER PLANT HAD ONE AUTOMATIC AND ONE MANUAL REACTOR TRIP AND ONE UNPLANNED CONTROLLED POWER PLANT SHUTDOWN IN THE YEAR 2005 AS WELL AS ONE GREATER UNPLANNED POWER REDUCTION. ON APRIL 10TH 2005, DURING THE TURBINE VALVES TESTING, AN OPERATOR'S ERROR CAUSED THE SAFETY INJECTION ON THE LOW STEAM LINE PRESSURE AND CONSEQUENTLY THE REACTOR TRIP. A DAY AFTER THE STARTUP, ON APRIL 11TH 2005, THE REACTOR WAS TRIPPED MANUALLY DUE TO THE LOSS OF THE VACUUM CAUSED BY THE SECONDARY STEAM LEAK. ON AUGUST 20TH 2005 THE PLANT SHUTDOWN WAS INITIATED TO REPAIR A CONTAINMENT RECIRCULATION FAN. THE UNPLANNED POWER REDUCTION WAS PERFORMED ON JUNE 20TH 2005 DUE TO THE MALFUNCTION OF THE CIRCULATING WATER PUMP.

5. Historical Summary

Date of Construction Start: 30 Mar 1975
Date of First Criticality: 11 Sep 1981
Date of Grid Connection: 02 Oct 1981
Date of Commercial Operation: 01 Jan 1983

Lifetime Generation: 105689.0 GW(e).h
Cumulative Energy Availability Factor: 82.2%
Cumulative Load Factor: 80.6%
Cumulative Unit Capability Factor: 83.8%
Cumulative Energy Unavailability Factor: 17.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	3724.1	632.0	69.6	69.6	69.6	69.6	67.3	67.3	6255	71.4
1984	4207.6	632.0	80.8	75.2	79.8	74.7	75.8	71.5	7073	80.5
1985	3845.3	632.0	72.1	74.2	72.1	73.8	69.5	70.8	6421	73.3
1986	3822.0	620.0	74.8	74.3	73.7	73.8	70.4	70.7	6561	74.9
1987	4278.8	620.0	83.5	76.1	83.5	75.7	78.8	72.3	7287	83.2
1988	3935.8	620.0	77.0	76.3	76.9	75.9	72.3	72.3	6866	78.2
1989	4453.9	620.0	85.5	77.6	85.2	77.2	82.0	73.7	7500	85.6
1990	4386.8	620.0	87.1	78.8	85.4	78.3	80.8	74.6	7592	86.7
1991	4718.2	632.0	94.6	80.6	88.7	79.4	85.2	75.8	8133	92.8
1992	3767.2	632.0	73.9	79.9	68.5	78.3	68.0	75.0	6699	76.5
1993	3762.8	620.0	72.5	79.2	69.3	77.5	69.3	74.5	6493	74.1
1994	4403.5	620.0	82.1	79.5	81.1	77.8	81.1	75.0	7402	84.5
1995	4568.5	620.0	85.1	79.9	84.1	78.3	84.1	75.7	7606	86.8
1996	4361.6	620.0	79.6	79.9	79.6	78.4	80.1	76.0	7143	81.3
1997	4794.0	620.0	88.3	80.4	87.8	79.0	88.3	76.8	7824	89.3
1998	4793.6	620.0	89.5	81.0	88.0	79.6	88.3	77.5	7913	90.3
1999	4492.4	620.0	84.7	81.2	82.4	79.7	82.7	77.8	7480	85.4
2000	4548.8	676.0	82.6	81.3	80.5	79.8	80.1	78.0	7295	83.0
2001	5036.3	656.0	88.4	81.7	86.2	80.1	87.6	78.5	7790	88.9
2002	5308.8	676.0	92.0	82.2	91.1	80.7	89.6	79.1	8111	92.6
2003	4963.3	676.0	91.6	82.7	86.2	81.0	83.8	79.3	8084	92.3
2004	5212.2	676.0	91.4	83.1	89.9	81.4	87.8	79.8	8081	92.0
2005	5613.7	656.0	98.5	83.8	98.3	82.2	97.7	80.6	8664	98.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		68			138	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	958					
D. Inspection, maintenance or repair without refuelling	192					
E. Testing of plant systems or components	60				1	
F. Major back-fitting, refurbishment or upgrading activities with refuelling	27					
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						0
L. Human factor related		27				
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					1	
Subtotal	0	95	0	1237	140	0
Total		95			1377	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
14. Safety Systems	48	2
15. Reactor Cooling Systems		17
16. Steam generation systems		14
31. Turbine and auxiliaries	20	30
32. Feedwater and Main Steam System		47
33. Circulating Water System		1
35. All other I&C Systems		0
41. Main Generator Systems		5
42. Electrical Power Supply Systems		17
Total	68	135

JP-11 HAMAOKA-1

Operator: CHUBU (CHUBU ELECTRIC POWER CO.,INC.)

Contractor: TOSHIBA (TOSHIBA CORPORATION)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 515.0 MW(e)
Design Net Capacity: 516.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 0.0 GW(e).h
Energy Availability Factor: 0.0%
Load Factor: 0.0%
Operating Factor: 0.0%
Energy Unavailability Factor: 100.0%
Total Off-line Time: 8760 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EAF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
UCF (%)	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
LF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
PUF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

ZA-1 KOEBERG-1

Operator: ESKOM (ESKOM)

Contractor: FRAM (FRAMATOME)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 900.0 MW(e)
 Design Net Capacity: 921.0 MW(e)
 Design Discharge Burnup: 36500 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5821.0 GW(e).h
 Energy Availability Factor: 74.7%
 Load Factor: 73.8%
 Operating Factor: 76.8%
 Energy Unavailability Factor: 25.3%
 Total Off-line Time: 2034 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	665.6	599.2	663.7	643.7	612.3	637.7	663.2	663.3	603.7	33.9	0.0	34.7	5821.0
EAF (%)	100.0	100.0	100.0	100.0	91.7	98.9	100.0	100.0	93.3	5.8	0.0	9.0	74.7
UCF (%)	100.0	100.0	100.0	100.0	100.0	99.8	100.0	100.0	100.0	6.8	0.0	16.7	76.8
LF (%)	99.4	99.1	99.1	99.5	91.4	98.4	99.0	99.1	93.2	5.1	0.0	5.2	73.8
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	6.7	0.0	16.7	76.8
EUF (%)	0.0	0.0	0.0	0.0	8.3	1.1	0.0	0.0	6.7	94.2	100.0	91.0	25.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.2	100.0	32.5	18.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	50.8	4.3
XUF (%)	0.0	0.0	0.0	0.0	8.3	0.9	0.0	0.0	6.7	1.0	0.0	7.7	2.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

WHEN THE UNIT WAS TAKEN OFF LINE IN OCT 2005 FOR THE REFUEL IT HAD BEEN SYNCHRONISED TO THE NATIONAL GRID FOR A CONTINUOUS PERIOD OF 360 DAYS.

5. Historical Summary

Date of Construction Start: 01 Jul 1976 Lifetime Generation: 117336.0 GW(e).h
 Date of First Criticality: 14 Mar 1984 Cumulative Energy Availability Factor: 70.5%
 Date of Grid Connection: 04 Apr 1984 Cumulative Load Factor: 67.6%
 Date of Commercial Operation: 21 Jul 1984 Cumulative Unit Capability Factor: 75.8%
 Cumulative Energy Unavailability Factor: 29.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	3441.3	920.0	90.6	90.6	88.8	88.8	84.7	84.7	4110	93.1
1985	4004.3	920.0	53.5	65.9	53.5	65.3	49.7	61.4	4986	56.9
1986	3419.0	922.0	53.6	61.0	53.6	60.6	42.3	53.8	4575	52.2
1987	2864.5	920.0	61.6	61.2	61.6	60.9	35.5	48.6	4337	49.5
1988	5964.4	920.0	76.0	64.5	76.0	64.3	73.8	54.2	6791	77.3
1989	4498.1	922.0	63.2	64.2	63.2	64.1	55.2	54.4	5655	64.0
1990	3852.1	920.0	61.7	63.9	52.7	62.3	47.8	53.4	5360	61.2
1991	5976.8	920.0	76.3	65.5	74.6	64.0	74.2	56.1	6886	78.6
1992	3992.5	920.0	63.6	65.3	50.3	62.4	49.4	55.3	5697	64.9
1993	4097.9	920.0	66.4	65.4	50.5	61.1	50.8	54.9	6010	68.6
1994	5933.9	920.0	95.6	68.3	74.9	62.4	73.6	56.7	8422	96.1
1995	4576.9	920.0	65.7	68.1	56.8	61.9	56.7	56.7	5853	66.8
1996	5672.8	920.0	81.8	69.2	70.4	62.6	70.2	57.7	7260	82.7
1997	6610.7	920.0	87.4	70.5	82.3	64.1	82.0	59.5	7676	87.6
1998	7248.3	920.0	97.6	72.4	90.1	65.9	89.9	61.6	8552	97.6
1999	7051.7	920.0	88.1	73.4	83.3	67.0	87.5	63.3	7848	89.6
2000	5629.2	920.0	73.4	73.4	70.2	67.2	69.8	63.7	7250	82.7
2001	6042.5	920.0	83.0	73.9	77.1	67.7	75.0	64.3	7303	83.4
2002	7328.6	900.0	95.2	75.1	93.1	69.1	93.0	65.9	8417	96.1
2003	6413.4	900.0	84.1	75.5	81.9	69.7	81.3	66.6	7398	84.5
2004	6388.0	900.0	81.6	75.8	81.1	70.3	80.8	67.3	7358	83.8
2005	5821.0	900.0	76.8	75.8	74.7	70.5	73.8	67.6	6726	76.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		144			232	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling				1188	14	
D. Inspection, maintenance or repair without refuelling				196		
E. Testing of plant systems or components	1656			5	0	17
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				73	35	
Z. Others		233			3	
Subtotal	1656	377	0	1462	294	17
Total		2033			1773	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		5
13. Reactor Auxiliary Systems		1
14. Safety Systems		3
15. Reactor Cooling Systems		64
16. Steam generation systems		0
31. Turbine and auxiliaries		43
32. Feedwater and Main Steam System		27
33. Circulating Water System		2
41. Main Generator Systems	144	28
42. Electrical Power Supply Systems		54
Total	144	227

ZA-2 KOEBERG-2

Operator: ESKOM (ESKOM)

Contractor: AA (ALSTHOM ATLANTIQUE)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 900.0 MW(e)
 Design Net Capacity: 921.0 MW(e)
 Design Discharge Burnup: 36500 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6416.8 GW(e).h
 Energy Availability Factor: 81.5%
 Load Factor: 81.4%
 Operating Factor: 83.7%
 Energy Unavailability Factor: 18.5%
 Total Off-line Time: 1430 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	460.1	0.0	245.7	647.1	636.5	608.5	669.2	668.7	644.0	668.3	500.1	668.6	6416.8
EAF (%)	58.6	-1.2	36.1	100.0	95.1	94.0	100.0	100.0	99.4	100.0	90.4	100.0	81.5
UCF (%)	74.5	0.0	44.5	100.0	100.0	94.6	100.0	100.0	99.4	100.0	90.4	100.0	84.2
LF (%)	68.7	0.0	36.7	100.0	95.0	93.9	99.9	99.9	99.4	99.7	77.2	99.9	81.4
OF (%)	74.5	0.0	45.7	100.1	100.0	95.3	100.0	100.0	100.0	99.9	81.9	100.0	83.7
EUF (%)	41.4	101.2	63.9	0.0	4.9	6.0	0.0	0.0	0.6	0.0	9.6	0.0	18.5
PUF (%)	25.5	100.0	29.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3
UCLF (%)	0.0	0.0	26.2	0.0	0.0	5.4	0.0	0.0	0.6	0.0	9.6	0.0	3.5
XUF (%)	15.9	1.2	8.4	0.0	4.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

NO HIGHLIGHTS FOR 2005.THE LOW WAS 2 REACTOR TRIPS FROM FULL LOAD DUE TO NETWORK FAILURES IN NOVEMBER .

5. Historical Summary

Date of Construction Start: 01 Jul 1976 Lifetime Generation: 110252.0 GW(e).h
 Date of First Criticality: 07 Jul 1985 Cumulative Energy Availability Factor: 68.9%
 Date of Grid Connection: 25 Jul 1985 Cumulative Load Factor: 67.5%
 Date of Commercial Operation: 09 Nov 1985 Cumulative Unit Capability Factor: 76.1%
 Cumulative Energy Unavailability Factor: 31.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	483.7	920.0	37.2	37.2	37.2	37.2	35.9	35.9	555	37.9
1986	5409.0	922.0	67.4	63.1	67.3	63.0	67.0	62.5	5969	68.1
1987	3352.8	920.0	48.6	56.4	48.6	56.4	41.6	52.9	4193	47.9
1988	4552.7	920.0	63.1	58.5	63.1	58.5	56.3	54.0	5626	64.0
1989	6620.2	922.0	89.2	65.9	89.2	65.9	81.3	60.6	8115	91.9
1990	4614.3	920.0	64.8	65.7	58.4	64.5	57.3	59.9	5933	67.7
1991	3191.9	920.0	56.3	64.2	40.3	60.6	39.6	56.6	5067	57.8
1992	5308.1	920.0	94.9	68.5	66.3	61.4	65.7	57.9	8439	96.1
1993	3212.3	920.0	52.6	66.5	40.4	58.8	39.9	55.7	4654	53.1
1994	3755.9	920.0	69.2	66.8	49.5	57.8	46.6	54.7	5944	67.9
1995	6710.5	920.0	98.6	69.9	83.2	60.3	83.3	57.5	8640	98.6
1996	6084.9	920.0	81.5	71.0	75.8	61.7	75.3	59.1	7177	81.7
1997	6016.4	920.0	83.8	72.0	75.2	62.8	74.7	60.4	7409	84.6
1998	6333.0	920.0	81.3	72.7	79.0	64.0	78.6	61.8	7194	82.1
1999	6413.9	920.0	86.2	73.7	75.7	64.8	79.6	63.0	7509	85.7
2000	7365.9	920.0	98.1	75.3	91.2	66.6	91.1	64.9	8687	98.9
2001	4662.8	920.0	66.5	74.8	60.1	66.2	57.9	64.4	5461	62.3
2002	4688.8	900.0	60.6	73.9	59.6	65.8	59.5	64.2	5439	62.1
2003	6255.5	900.0	82.9	74.4	79.4	66.5	79.3	65.0	7150	81.6
2004	7896.7	900.0	99.8	75.7	99.8	68.2	99.9	66.8	8784	100.0
2005	6416.8	900.0	84.2	76.1	81.5	68.9	81.4	67.5	7330	83.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		130			351	15
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling	1080	184		825	24	
D. Inspection, maintenance or repair without refuelling				39		
E. Testing of plant systems or components				47	0	
G. Major back-fitting, refurbishment or upgrading activities without refuelling						0
H. Nuclear regulatory requirements					1	
J. Grid failure or grid unavailability			115		0	1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					86	3
Subtotal	1080	314	115	911	469	19
Total		1509			1399	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		11
14. Safety Systems	74	52
15. Reactor Cooling Systems		13
16. Steam generation systems		51
31. Turbine and auxiliaries		18
32. Feedwater and Main Steam System		19
33. Circulating Water System		3
35. All other I&C Systems	56	
41. Main Generator Systems		14
42. Electrical Power Supply Systems		181
Total	130	362

ES-6 ALMARAZ-1

Operator: CNAT (CENTRALES NUCLEARES ALMARAZ-TRILLO(ID/UFG/ENDESA/HC/NUCLENOR))

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 944.0 MW(e)
Design Net Capacity: 900.0 MW(e)
Design Discharge Burnup: 58000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7519.4 GW(e).h
Energy Availability Factor: 91.4%
Load Factor: 90.9%
Operating Factor: 93.4%
Energy Unavailability Factor: 8.6%
Total Off-line Time: 580 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	701.1	632.4	594.7	123.8	693.3	664.2	683.8	684.6	666.7	694.3	677.4	703.1	7519.4
EAF (%)	100.0	99.9	85.7	19.2	99.3	98.4	98.0	98.1	98.7	99.2	100.0	100.0	91.4
UCF (%)	100.0	99.9	96.4	19.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.1
LF (%)	99.8	99.7	84.7	18.2	98.7	97.7	97.4	97.5	98.1	98.7	99.7	100.1	90.9
OF (%)	100.0	100.0	96.4	23.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.4
EUF (%)	0.0	0.1	14.3	80.8	0.7	1.6	2.0	1.9	1.3	0.8	0.0	0.0	8.6
PUF (%)	0.0	0.0	3.5	80.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
UCLF (%)	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	10.7	0.0	0.7	1.6	2.0	1.9	1.3	0.8	0.0	0.0	1.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

STABLE OPERATION DURING THE YEAR. THE ONLY DISCONNECTION FROM THE GRID WAS FOR REFUELING AND A SCRAM AFTER A START-UP.

5. Historical Summary

Date of Construction Start: 02 Jul 1973 **Lifetime Generation:** 157341.0 GW(e).h
Date of First Criticality: 05 Apr 1981 **Cumulative Energy Availability Factor:** 84.7%
Date of Grid Connection: 01 May 1981 **Cumulative Load Factor:** 84.9%
Date of Commercial Operation: 01 Sep 1983 **Cumulative Unit Capability Factor:** 86.0%
Cumulative Energy Unavailability Factor: 15.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	2135.5	930.0	100.0	100.0	78.4	78.4	78.4	78.4	2597	88.7
1984	4820.5	893.0	65.0	74.0	65.0	68.5	61.5	65.8	6062	69.0
1985	4825.2	900.0	61.6	68.7	61.6	65.6	61.2	63.8	5705	65.1
1986	5425.0	900.0	69.3	68.9	69.3	66.7	68.8	65.3	6418	73.3
1987	7193.7	900.0	92.5	74.3	92.5	72.6	91.2	71.3	8346	95.3
1988	5879.6	900.0	74.6	74.4	74.6	73.0	74.4	71.9	6899	78.5
1989	6562.2	895.0	83.2	75.8	83.2	74.6	83.7	73.7	7640	87.2
1990	6460.7	895.0	82.2	76.6	82.2	75.6	82.4	74.9	7451	85.1
1991	7481.7	895.0	96.2	79.0	96.2	78.1	95.4	77.4	8589	98.0
1992	6379.1	895.0	80.8	79.2	80.8	78.4	81.1	77.8	7387	84.1
1993	6530.9	895.0	85.1	79.7	83.2	78.8	83.3	78.3	7663	87.5
1994	7448.6	895.0	95.9	81.2	95.1	80.3	95.0	79.8	8495	97.0
1995	6588.5	895.0	86.2	81.6	83.7	80.5	84.0	80.1	7709	88.0
1996	5904.3	895.0	73.8	81.0	72.5	79.9	75.1	79.7	6789	77.3
1997	6642.8	895.0	83.0	81.1	79.6	79.9	84.7	80.1	7371	84.1
1998	8032.5	944.0	98.8	82.3	97.1	81.1	97.1	81.2	8760	100.0
1999	6988.6	927.0	85.4	82.5	84.7	81.3	86.1	81.6	7613	86.9
2000	7471.6	927.0	91.1	83.0	90.3	81.9	91.8	82.2	8014	91.2
2001	8151.4	927.0	99.6	84.0	99.0	82.8	100.4	83.2	8749	99.9
2002	7428.0	944.0	92.2	84.4	90.4	83.2	89.8	83.5	8100	92.5
2003	7499.1	944.0	93.8	84.9	91.6	83.6	90.7	83.9	8233	94.0
2004	8185.7	944.0	99.9	85.6	99.2	84.4	98.7	84.6	8784	100.0
2005	7519.4	944.0	93.1	86.0	91.4	84.7	90.9	84.9	8180	93.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		8		5	134	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	592			748		
D. Inspection, maintenance or repair without refuelling				236		
E. Testing of plant systems or components				70	0	
H. Nuclear regulatory requirements					2	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
L. Human factor related					2	
Subtotal	592	8	0	1059	140	0
Total		600			1199	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		15
13. Reactor Auxiliary Systems		38
15. Reactor Cooling Systems		19
16. Steam generation systems		0
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		6
32. Feedwater and Main Steam System		26
33. Circulating Water System		1
41. Main Generator Systems		4
42. Electrical Power Supply Systems	8	27
Total	8	136

ES-7 ALMARAZ-2

Operator: CNAT (CENTRALES NUCLEARES ALMARAZ-TRILLO(ID/UFG/ENDESA/HC/NUCLENOR))

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 956.0 MW(e)
Design Net Capacity: 930.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8253.3 GW(e).h
Energy Availability Factor: 99.2%
Load Factor: 98.6%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.8%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	709.1	640.5	705.7	686.3	701.6	671.5	690.6	689.5	671.6	698.8	681.4	706.8	8253.3
EAF (%)	100.0	100.0	99.7	100.0	99.5	98.5	98.1	97.9	98.5	99.0	99.9	100.0	99.2
UCF (%)	100.0	100.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	99.7	99.7	99.2	99.8	98.6	97.6	97.1	96.9	97.6	98.1	99.0	99.4	98.6
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.3	0.0	0.5	1.5	1.9	2.1	1.5	1.0	0.1	0.0	0.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.5	1.5	1.9	2.1	1.5	1.0	0.1	0.0	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE UNIT OPERATED IN A STABLE MODE DURING THE YEAR WITHOUT DISCONNECTION FROM THE GRID.THE REFERENCE UNIT POWER REVISIONS DURING THE YEAR: 955.7 (NET) TO JANUARY.

5. Historical Summary

Date of Construction Start: 02 Jul 1973 **Lifetime Generation:** 153692.0 GW(e).h
Date of First Criticality: 19 Sep 1983 **Cumulative Energy Availability Factor:** 86.8%
Date of Grid Connection: 08 Oct 1983 **Cumulative Load Factor:** 87.1%
Date of Commercial Operation: 01 Jul 1984 **Cumulative Unit Capability Factor:** 87.9%
Cumulative Energy Unavailability Factor: 13.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	3204.9	893.0	86.0	86.0	86.0	86.0	81.3	81.3	3989	90.3
1985	6236.1	900.0	79.8	81.9	79.8	81.9	79.1	79.8	7297	83.3
1986	5825.2	900.0	75.2	79.2	75.2	79.2	73.9	77.4	7136	81.5
1987	6402.5	900.0	81.8	80.0	81.8	80.0	81.2	78.5	7351	83.9
1988	6809.4	900.0	86.3	81.4	86.3	81.4	86.1	80.2	7838	89.2
1989	6545.7	895.0	82.8	81.6	82.8	81.6	83.5	80.8	7638	87.2
1990	7649.3	895.0	97.4	84.0	97.4	84.0	97.6	83.4	8652	98.8
1991	6812.9	895.0	85.4	84.2	85.4	84.2	86.9	83.8	7712	88.0
1992	6892.7	895.0	87.3	84.6	87.3	84.6	87.7	84.3	7997	91.0
1993	7710.1	895.0	99.0	86.1	98.5	86.0	98.3	85.8	8760	100.0
1994	6384.6	895.0	84.2	85.9	80.9	85.6	81.4	85.4	7562	86.3
1995	6814.7	895.0	89.1	86.2	86.2	85.6	86.9	85.5	7952	90.8
1996	7273.3	895.0	91.6	86.6	91.5	86.1	92.5	86.1	8108	92.3
1997	6042.5	895.0	76.6	85.9	72.6	85.1	77.1	85.4	6811	77.8
1998	5892.4	953.0	75.9	85.2	70.2	84.0	70.6	84.3	6810	77.7
1999	8126.6	936.0	98.0	86.0	97.4	84.9	99.1	85.3	8743	99.8
2000	7401.8	936.0	90.6	86.3	88.5	85.1	90.0	85.6	8160	92.9
2001	7601.5	936.0	92.1	86.6	91.3	85.5	92.7	86.0	8189	93.5
2002	8154.9	953.0	98.8	87.3	98.1	86.2	97.7	86.7	8760	100.0
2003	6627.9	953.0	81.9	87.0	79.9	85.9	79.4	86.3	7391	84.4
2004	7563.2	953.0	91.6	87.3	90.9	86.1	90.3	86.5	8083	92.0
2005	8253.3	956.0	100.0	87.9	99.2	86.8	98.6	87.1	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					133	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	649					
D. Inspection, maintenance or repair without refuelling	27					
E. Testing of plant systems or components	37					
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	
L. Human factor related					0	
Subtotal	0	0	0	713	150	0
Total	0			863		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		4
14. Safety Systems		2
15. Reactor Cooling Systems		5
16. Steam generation systems		25
31. Turbine and auxiliaries		35
32. Feedwater and Main Steam System		8
35. All other I&C Systems		0
41. Main Generator Systems		1
42. Electrical Power Supply Systems		38
Total	0	129

ES-8 ASCO-1

Operator: ANAV (ASOCIACION NUCLEAR ASCO-VANDELLOS A.I.E. (ENDESA/ID))

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 995.0 MW(e)
Design Net Capacity: 888.0 MW(e)
Design Discharge Burnup: 50500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7640.5 GW(e).h
Energy Availability Factor: 88.2%
Load Factor: 87.7%
Operating Factor: 97.6%
Energy Unavailability Factor: 11.8%
Total Off-line Time: 212 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	722.4	654.4	498.5	639.7	657.5	629.9	649.8	649.8	611.0	637.6	631.7	658.2	7640.5
EAF (%)	98.1	98.2	67.5	89.3	89.4	88.8	88.7	88.7	86.2	86.5	88.9	89.4	88.2
UCF (%)	98.2	98.2	67.5	89.5	89.7	89.7	89.7	89.7	87.7	89.9	89.4	89.7	89.0
LF (%)	97.6	97.9	67.3	89.4	88.8	87.9	87.8	87.8	85.3	86.0	88.2	88.9	87.7
OF (%)	100.0	100.0	73.7	100.1	100.0	100.0	100.0	100.0	99.3	98.4	100.0	100.0	97.6
EUF (%)	1.9	1.8	32.5	10.7	10.6	11.2	11.3	11.3	13.8	13.5	11.1	10.6	11.8
PUF (%)	1.8	1.8	2.9	10.3	10.3	10.3	10.3	10.3	10.2	10.1	10.3	10.3	8.3
UCLF (%)	0.0	0.0	29.5	0.3	0.0	0.0	0.0	0.0	2.1	0.0	0.3	0.0	2.7
XUF (%)	0.1	0.0	0.1	0.1	0.3	0.9	1.0	1.0	1.5	3.3	0.4	0.2	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 16 May 1974
Date of First Criticality: 16 Jun 1983
Date of Grid Connection: 13 Aug 1983
Date of Commercial Operation: 10 Dec 1984

Lifetime Generation: 155938.5 GW(e).h
Cumulative Energy Availability Factor: 85.0%
Cumulative Load Factor: 83.9%
Cumulative Unit Capability Factor: 85.4%
Cumulative Energy Unavailability Factor: 15.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	104.0	887.0	20.0	20.0	20.0	20.0	15.8	15.8	161	21.6
1985	4429.4	898.0	60.3	57.2	60.3	57.2	56.3	53.2	5342	61.0
1986	5129.0	898.0	68.2	62.5	68.2	62.5	65.2	58.9	6208	70.9
1987	6392.0	898.0	84.3	69.5	83.7	69.3	81.3	66.2	7569	86.4
1988	6669.0	898.0	84.1	73.1	84.1	73.0	84.5	70.7	7599	86.5
1989	6750.0	930.0	86.1	75.7	86.0	75.6	82.9	73.1	7771	88.7
1990	6642.0	930.0	84.5	77.2	84.5	77.1	81.5	74.6	7699	87.9
1991	6836.0	930.0	87.2	78.6	87.0	78.5	83.9	75.9	7810	89.2
1992	6875.0	887.0	86.5	79.6	86.5	79.5	88.2	77.4	7898	89.9
1993	6599.0	930.0	83.3	80.0	83.2	79.9	81.0	77.8	7401	84.5
1994	6868.0	930.0	87.1	80.7	86.8	80.6	84.3	78.5	7758	88.6
1995	5708.0	900.0	70.7	79.8	70.4	79.7	72.4	77.9	6387	72.9
1996	7972.0	947.0	99.0	81.5	99.0	81.4	95.8	79.5	8755	99.7
1997	6411.0	915.0	80.5	81.4	77.6	81.1	80.0	79.5	7198	82.2
1998	7349.0	949.0	89.3	82.0	89.1	81.7	88.4	80.2	7943	90.7
1999	8147.0	945.0	99.0	83.2	98.7	82.8	98.4	81.4	8741	99.8
2000	7681.0	991.0	89.8	83.6	89.5	83.3	89.3	81.9	8008	91.2
2001	7798.0	991.0	90.3	84.0	89.8	83.7	89.8	82.4	8056	92.0
2002	8397.0	998.0	98.2	84.9	97.6	84.5	96.0	83.2	8737	99.7
2003	7581.1	995.0	88.0	85.0	87.3	84.7	86.9	83.4	7900	90.2
2004	7734.3	995.0	89.2	85.3	88.6	84.9	88.5	83.7	7949	90.5
2005	7640.5	995.0	89.0	85.4	88.2	85.0	87.7	83.9	8548	97.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		212			230	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				844		
D. Inspection, maintenance or repair without refuelling				20		
E. Testing of plant systems or components				73	6	
J. Grid failure or grid unavailability						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	0
L. Human factor related				7	1	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			41			
Z. Others					1	
Subtotal	0	212	41	944	249	5
Total		253			1198	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		0
15. Reactor Cooling Systems		13
16. Steam generation systems		12
17. Safety I&C Systems (excluding reactor I&C)		0
21. Fuel Handling and Storage Facilities		8
31. Turbine and auxiliaries		12
32. Feedwater and Main Steam System		14
35. All other I&C Systems		1
41. Main Generator Systems		99
42. Electrical Power Supply Systems	212	60
XX. Miscellaneous Systems		2
Total	212	224

ES-9 ASCO-2

Operator: ANAV (ASOCIACION NUCLEAR ASCO-VANDELLOS A.I.E. (ENDESA/ID))

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 997.0 MW(e)
Design Net Capacity: 888.0 MW(e)
Design Discharge Burnup: 50500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7418.9 GW(e).h
Energy Availability Factor: 86.1%
Load Factor: 84.9%
Operating Factor: 88.8%
Energy Unavailability Factor: 13.9%
Total Off-line Time: 981 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	706.2	651.6	719.6	552.0	715.9	685.3	705.4	706.0	667.7	0.0	579.8	729.5	7418.9
EAF (%)	96.2	98.2	98.1	77.5	97.8	97.1	96.8	96.9	94.7	0.0	81.9	99.4	86.1
UCF (%)	96.6	98.3	98.3	77.8	98.3	98.1	98.3	98.3	96.0	0.0	82.8	99.9	86.8
LF (%)	95.2	97.3	97.0	77.0	96.5	95.5	95.1	95.2	93.0	0.0	80.8	98.3	84.9
OF (%)	99.1	100.0	99.9	81.2	100.0	100.0	100.0	100.0	98.8	0.0	88.3	100.0	88.8
EUF (%)	3.8	1.8	1.9	22.5	2.2	2.9	3.2	3.1	5.3	100.0	18.1	0.6	13.9
PUF (%)	1.7	1.7	1.7	1.4	1.7	1.7	1.7	1.7	2.7	100.0	4.5	0.1	10.2
UCLF (%)	1.7	0.0	0.0	20.9	0.0	0.1	0.0	0.0	1.3	0.0	12.7	0.0	3.0
XUF (%)	0.4	0.1	0.2	0.2	0.5	1.0	1.5	1.3	1.3	0.0	0.9	0.4	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 07 Mar 1975
Date of First Criticality: 11 Sep 1985
Date of Grid Connection: 23 Oct 1985
Date of Commercial Operation: 31 Mar 1986

Lifetime Generation: 147907.6 GW(e).h
Cumulative Energy Availability Factor: 87.7%
Cumulative Load Factor: 86.3%
Cumulative Unit Capability Factor: 88.3%
Cumulative Energy Unavailability Factor: 12.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	4977.0	898.0	79.3	79.3	79.3	79.3	75.5	75.5	5907	80.4
1987	5954.0	898.0	78.1	78.7	77.3	78.2	75.7	75.6	7035	80.3
1988	6865.0	898.0	88.2	82.0	86.8	81.2	87.0	79.6	7874	89.6
1989	6732.0	930.0	86.3	83.2	85.7	82.4	82.6	80.4	7729	88.2
1990	6933.0	930.0	90.4	84.7	90.4	84.1	85.1	81.4	7916	90.4
1991	6820.0	930.0	86.7	85.1	86.5	84.5	83.7	81.8	7799	89.0
1992	7077.0	953.0	89.9	85.8	89.9	85.3	84.5	82.2	8042	91.6
1993	7052.0	930.0	90.0	86.3	88.6	85.8	86.6	82.8	7897	90.1
1994	7085.0	930.0	89.8	86.7	89.5	86.2	87.0	83.3	7962	90.9
1995	6977.0	900.0	86.4	86.7	86.3	86.2	88.5	83.8	7674	87.6
1996	6011.0	966.0	75.6	85.6	75.1	85.1	71.1	82.6	6825	77.7
1997	7916.0	900.0	98.2	86.7	96.2	86.0	100.4	84.0	8725	99.6
1998	7399.0	946.0	90.6	87.0	89.9	86.3	89.3	84.4	8050	91.9
1999	7215.0	946.0	87.2	87.0	86.4	86.3	87.1	84.6	7854	89.7
2000	8451.0	983.0	98.6	87.8	98.6	87.2	97.9	85.6	8734	99.4
2001	7829.0	983.0	91.0	88.0	90.6	87.4	90.9	85.9	8102	92.5
2002	7780.0	997.0	90.8	88.2	89.4	87.6	89.1	86.1	8127	92.8
2003	8521.2	997.0	99.6	88.9	98.7	88.2	97.6	86.8	8738	99.7
2004	6909.3	997.0	80.2	88.4	79.6	87.7	78.9	86.4	7287	83.0
2005	7418.9	997.0	86.8	88.3	86.1	87.7	84.9	86.3	7779	88.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		18			165	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	745	83		627		
D. Inspection, maintenance or repair without refuelling		156		36		
E. Testing of plant systems or components				24	4	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				23		
J. Grid failure or grid unavailability					3	7
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				17	6	4
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						2
Z. Others					2	
Subtotal	745	257	0	727	181	13
Total		1002			921	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		4
12. Reactor I&C Systems		1
15. Reactor Cooling Systems		1
16. Steam generation systems		10
31. Turbine and auxiliaries		15
32. Feedwater and Main Steam System		72
33. Circulating Water System		3
41. Main Generator Systems		0
42. Electrical Power Supply Systems	18	45
XX. Miscellaneous Systems		9
Total	18	160

ES-10 COFRENTES

Operator: ID (IBERDROLA, S.A.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
 Net Reference Unit Power
 at the beginning of 2005: 1064.0 MW(e)
 Design Net Capacity: 930.0 MW(e)
 Design Discharge Burnup: 40000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6765.1 GW(e).h
 Energy Availability Factor: 72.8%
 Load Factor: 72.6%
 Operating Factor: 77.3%
 Energy Unavailability Factor: 27.2%
 Total Off-line Time: 1992 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	785.3	669.9	722.7	661.9	280.5	0.0	0.0	621.2	753.1	762.2	735.9	772.4	6765.1
EAF (%)	99.5	93.7	91.4	86.4	35.4	0.0	0.0	79.2	100.0	96.5	96.2	97.5	72.8
UCF (%)	100.0	99.1	100.0	100.0	44.6	0.0	0.0	79.2	100.0	96.5	96.2	97.5	75.9
LF (%)	99.2	93.7	91.3	86.5	35.4	0.0	0.0	78.5	98.3	96.2	96.1	97.6	72.6
OF (%)	100.0	100.0	99.9	100.1	45.4	0.0	0.0	83.6	100.0	100.0	100.0	100.0	77.3
EUF (%)	0.5	6.3	8.6	13.6	64.6	100.0	100.0	20.8	0.0	3.5	3.8	2.5	27.2
PUF (%)	0.0	0.0	0.0	0.0	55.4	91.7	100.0	15.6	0.0	3.5	2.1	0.0	22.5
UCLF (%)	0.0	0.9	0.0	0.0	0.0	8.3	0.0	5.2	0.0	0.0	1.8	2.6	1.6
XUF (%)	0.5	5.3	8.6	13.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

JULY 5 TO AUGUST 2: REPAIR OF PIPES IN THE CRDH SYSTEM.

5. Historical Summary

Date of Construction Start: 09 Sep 1975 Lifetime Generation: 155706.0 GW(e).h
 Date of First Criticality: 23 Aug 1984 Cumulative Energy Availability Factor: 86.8%
 Date of Grid Connection: 14 Oct 1984 Cumulative Load Factor: 86.9%
 Date of Commercial Operation: 11 Mar 1985 Cumulative Unit Capability Factor: 87.7%
 Cumulative Energy Unavailability Factor: 13.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	5612.3	939.0	81.4	81.4	81.4	81.4	81.4	81.4	6444	87.7
1986	6668.3	939.0	82.0	81.7	81.1	81.2	81.1	81.2	7487	85.5
1987	6883.1	930.0	83.4	82.3	83.4	82.0	84.5	82.4	7615	86.9
1988	7142.2	930.0	85.7	83.2	85.5	82.9	87.4	83.7	7850	89.4
1989	7052.2	939.0	83.9	83.3	83.9	83.1	85.7	84.1	7732	88.3
1990	7070.3	939.0	85.1	83.6	85.1	83.5	86.0	84.4	7560	86.3
1991	6999.6	953.0	83.7	83.7	83.7	83.5	83.8	84.3	7660	87.4
1992	7712.1	939.0	91.9	84.7	91.9	84.6	93.5	85.5	8376	95.4
1993	7016.2	953.0	84.8	84.7	83.6	84.4	84.0	85.3	7579	86.5
1994	6990.9	953.0	85.1	84.7	83.5	84.4	83.7	85.2	7553	86.2
1995	8187.0	953.0	97.8	86.0	97.5	85.6	98.1	86.4	8683	99.1
1996	7687.5	953.0	91.9	86.5	90.9	86.0	91.8	86.8	8215	93.5
1997	6893.7	953.0	86.2	86.4	83.7	85.9	82.6	86.5	7668	87.5
1998	8174.1	993.0	96.6	87.2	96.6	86.7	94.0	87.1	8546	97.6
1999	7491.6	989.0	89.8	87.4	86.4	86.7	86.5	87.0	8004	91.4
2000	7348.1	989.0	86.9	87.4	84.6	86.5	84.6	86.9	7808	88.9
2001	8278.1	989.0	95.5	87.9	95.5	87.1	95.6	87.4	8424	96.2
2002	7918.1	1043.0	89.2	87.9	88.2	87.1	86.7	87.4	7875	89.9
2003	8002.5	1062.0	88.2	88.0	88.2	87.2	86.5	87.3	7742	88.4
2004	8813.9	1064.0	94.9	88.3	94.3	87.6	94.3	87.7	8457	96.3
2005	6765.1	1064.0	75.9	87.7	72.8	86.8	72.6	86.9	6768	77.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		59			195	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	1020			568	2	
D. Inspection, maintenance or repair without refuelling	872			19		
E. Testing of plant systems or components				25		
J. Grid failure or grid unavailability						4
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	1
L. Human factor related		38			2	
Z. Others					7	
Subtotal	1892	97	0	612	218	5
Total		1989			835	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	59	0
12. Reactor I&C Systems	0	16
13. Reactor Auxiliary Systems		4
15. Reactor Cooling Systems		10
21. Fuel Handling and Storage Facilities		29
31. Turbine and auxiliaries		81
32. Feedwater and Main Steam System		6
41. Main Generator Systems		34
42. Electrical Power Supply Systems		9
Total	59	189

ES-1 JOSE CABRERA-1(ZORITA)

Operator: UFG (UNION FENOSA GENERATION S.A.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 141.0 MW(e)
Design Net Capacity: 153.0 MW(e)
Design Discharge Burnup: 34000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1094.1 GW(e).h
Energy Availability Factor: 88.3%
Load Factor: 88.6%
Operating Factor: 90.2%
Energy Unavailability Factor: 11.7%
Total Off-line Time: 861 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	103.7	12.6	88.9	101.2	104.0	101.2	104.2	103.8	100.6	103.9	100.9	69.2	1094.1
EAF (%)	98.6	12.9	84.7	99.1	98.4	99.3	99.0	98.8	98.7	98.7	98.8	66.6	88.3
UCF (%)	98.6	12.9	84.7	99.1	98.4	99.3	99.0	98.8	98.7	98.7	98.8	66.6	88.3
LF (%)	98.8	13.3	84.8	99.8	99.1	99.6	99.4	98.9	99.1	98.9	99.3	65.9	88.6
OF (%)	100.0	14.3	89.2	100.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	72.3	90.2
EUF (%)	1.4	87.1	15.3	0.9	1.6	0.7	1.0	1.2	1.3	1.3	1.2	33.4	11.7
PUF (%)	0.0	87.1	14.5	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	1.3	8.1
UCLF (%)	1.4	0.0	0.8	0.9	1.6	0.7	0.9	1.2	1.2	1.3	1.2	32.1	3.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE.THERE HAVE NOT BEEN SIGNIFICANT FACTORS AFFECTING ENERGY GENERATION.PLANNED OUTAGE (28TH REFUELLING) 05/FEBRUARY-05/MARCH/2005.MEASURE OF THE MODERATOR TEMPERATURE COEFFICIENT AND UNPLANNED OUTAGE TO REPAIR THE REACTOR COOLANT PUMP 10/DECEMBER/2005.THE PLANT WENT INTO OPERATION IN 1968, AND IT SHALL BEGIN THE PERMANENT SHUTDOWN ON APRIL 2006 FOLLOWING A DISPOSITION OF THE SPANISH GOVERNMENT

5. Historical Summary

Date of Construction Start: 24 Jun 1964
Date of First Criticality: 30 Jun 1968
Date of Grid Connection: 14 Jul 1968
Date of Commercial Operation: 13 Aug 1969

Lifetime Generation: 34236.1 GW(e).h
Cumulative Energy Availability Factor: 72.4%
Cumulative Load Factor: 68.5%
Cumulative Unit Capability Factor: 75.5%
Cumulative Energy Unavailability Factor: 27.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1969	0.0	153.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	923.0	160.0	100.0	100.0	65.8	75.6	65.9	47.0	7043	80.4
1971	1006.9	160.0	100.0	100.0	74.3	75.1	71.8	57.3	6832	78.0
1972	896.5	160.0	100.0	100.0	67.9	72.9	63.8	59.2	6172	70.3
1973	874.9	153.0	69.5	93.3	68.5	72.0	65.3	60.6	6089	69.5
1974	1017.4	160.0	76.2	90.1	76.2	72.8	72.6	62.8	8450	96.5
1975	1083.5	153.0	80.7	88.7	80.7	74.0	80.8	65.5	7685	87.7
1976	1058.7	153.0	78.6	87.4	78.6	74.6	78.8	67.3	7780	88.6
1977	1139.7	153.0	85.2	87.1	81.8	75.4	85.0	69.3	8003	91.4
1978	1008.0	153.0	75.2	85.9	75.2	75.4	75.2	70.0	7059	80.6
1979	951.4	153.0	70.2	84.4	70.2	74.9	71.0	70.1	6789	77.5
1980	914.4	153.0	67.1	82.9	67.1	74.2	68.0	69.9	7355	83.7
1981	1108.5	153.0	82.0	82.8	82.0	74.8	82.7	70.9	7690	87.8
1982	865.9	153.0	63.4	81.4	63.4	74.0	64.6	70.4	6891	78.7
1983	14.8	153.0	1.0	75.9	1.0	69.0	1.1	65.7	163	1.9
1984	1106.9	153.0	85.4	76.5	85.2	70.0	82.4	66.8	8379	95.4
1985	276.7	153.0	20.5	73.1	20.5	67.1	20.6	64.0	2272	25.9
1986	1049.6	153.0	80.3	73.5	80.3	67.8	78.3	64.8	7586	86.6
1987	1097.1	153.0	82.8	74.0	82.8	68.6	81.9	65.7	7834	89.4
1988	1142.2	153.0	85.2	74.6	85.2	69.5	85.0	66.7	7839	89.2
1989	1132.9	153.0	84.8	75.1	84.8	70.2	84.8	67.6	8059	92.3
1990	957.4	153.0	72.3	75.0	72.3	70.3	71.4	67.8	7281	83.1
1991	1048.4	153.0	79.1	75.2	79.1	70.7	78.2	68.2	7230	82.5
1992	1123.8	153.0	84.7	75.6	84.0	71.3	83.6	68.9	7743	88.1
1993	913.0	153.0	93.5	76.3	81.7	71.7	68.1	68.8	8496	97.0
1994	21.0	153.0	2.4	73.4	2.4	69.0	1.6	66.2	216	2.5
1995	348.7	153.0	51.2	72.6	51.2	68.3	26.0	64.7	4853	55.4
1996	979.8	153.0	90.1	73.2	90.1	69.1	72.9	65.0	8099	92.2
1997	815.6	153.0	63.3	72.9	63.3	68.9	60.9	64.9	6088	69.5
1998	1100.3	153.0	84.0	73.2	84.0	69.4	82.1	65.4	8004	91.4
1999	1109.6	153.0	84.2	73.6	84.2	69.9	82.8	66.0	7969	91.0
2000	1098.7	153.0	83.8	73.9	83.8	70.3	81.8	66.5	7898	89.9
2001	1057.9	153.0	82.1	74.2	82.1	70.7	78.9	66.9	7698	87.9
2002	947.4	153.0	79.1	74.3	79.1	70.9	70.7	67.0	6912	78.9
2003	1071.0	153.0	84.5	74.6	84.5	71.3	79.9	67.4	7632	87.1
2004	1172.9	153.0	94.4	75.2	94.4	72.0	87.3	67.9	8489	96.6
2005	1094.1	141.0	88.3	75.5	88.3	72.4	88.6	68.5	7899	90.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		206			384	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	641			1090		
D. Inspection, maintenance or repair without refuelling				265		
E. Testing of plant systems or components				7	1	
H. Nuclear regulatory requirements				12		
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	2
Z. Others					9	
Subtotal	641	206	0	1374	395	4
Total		847			1773	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		263
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		3
14. Safety Systems		1
15. Reactor Cooling Systems	206	12
16. Steam generation systems		28
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		9
32. Feedwater and Main Steam System		4
41. Main Generator Systems		51
42. Electrical Power Supply Systems		6
Total	206	381

ES-2 SANTA MARIA DE GARONA

Operator: NUCLENOR (NUCLENOR, S.A.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 446.0 MW(e)
Design Net Capacity: 440.0 MW(e)
Design Discharge Burnup: 31000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3515.3 GW(e).h
Energy Availability Factor: 89.8%
Load Factor: 90.0%
Operating Factor: 90.7%
Energy Unavailability Factor: 10.2%
Total Off-line Time: 814 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	332.6	269.3	5.4	323.2	303.9	320.0	324.2	329.8	321.2	330.7	322.0	333.0	3515.3
EAF (%)	99.9	89.8	1.7	100.0	91.1	99.6	97.7	99.4	100.0	99.5	100.0	100.0	89.8
UCF (%)	100.0	92.3	1.8	100.0	91.1	100.0	98.1	100.0	100.0	99.6	100.0	100.0	90.1
LF (%)	100.2	89.9	1.6	100.8	91.6	99.6	97.7	99.4	100.0	99.5	100.3	100.4	90.0
OF (%)	100.0	92.9	3.9	100.1	93.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.7
EUF (%)	0.1	10.2	98.3	0.0	8.9	0.4	2.3	0.6	0.0	0.5	0.0	0.0	10.2
PUF (%)	0.0	7.7	86.0	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.0	0.0	8.0
UCLF (%)	0.0	0.0	12.3	0.0	8.9	0.0	1.6	0.0	0.0	0.0	0.0	0.0	1.9
XUF (%)	0.1	2.5	0.0	0.0	0.0	0.4	0.4	0.6	0.0	0.1	0.0	0.0	0.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE. REFUELING OUTAGE FROM 2005-02-27 TO 2005-03-30.

5. Historical Summary

Date of Construction Start: 02 May 1966
Date of First Criticality: 05 Nov 1970
Date of Grid Connection: 02 Mar 1971
Date of Commercial Operation: 11 May 1971

Lifetime Generation: 101786.8 GW(e).h
Cumulative Energy Availability Factor: 76.2%
Cumulative Load Factor: 75.6%
Cumulative Unit Capability Factor: 78.9%
Cumulative Energy Unavailability Factor: 23.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	1380.3	460.0	100.0	100.0	51.0	51.0	51.0	51.0	4029	68.5
1972	2668.9	460.0	100.0	100.0	66.0	60.0	66.1	60.0	6683	76.1
1973	2351.7	440.0	74.6	90.8	72.5	64.6	61.0	60.4	6532	74.6
1974	2237.8	440.0	58.0	82.0	58.0	62.8	58.1	59.8	6456	73.7
1975	2746.8	440.0	71.3	79.8	71.3	64.6	71.3	62.2	7079	80.8
1976	2859.9	440.0	74.0	78.8	74.0	66.2	74.0	64.2	7039	80.1
1977	1815.1	440.0	47.1	74.1	47.1	63.4	47.1	61.7	4743	54.1
1978	3111.1	440.0	80.7	74.9	80.7	65.6	80.7	64.2	7409	84.6
1979	2339.4	440.0	60.6	73.3	60.6	65.1	60.7	63.8	5786	66.1
1980	780.8	440.0	19.5	67.8	19.5	60.4	20.2	59.3	1926	21.9
1981	3178.7	440.0	82.4	69.1	82.4	62.4	82.5	61.4	7597	86.7
1982	2044.1	440.0	53.3	67.8	53.3	61.6	53.0	60.7	5132	58.6
1983	2322.1	440.0	60.2	67.2	60.2	61.5	60.2	60.7	5630	64.3
1984	2873.5	440.0	85.6	68.5	74.2	62.5	74.3	61.7	6853	78.0
1985	1731.0	440.0	46.6	67.0	44.1	61.2	44.9	60.5	4285	48.9
1986	3413.6	440.0	91.8	68.6	88.6	63.0	88.6	62.3	8173	93.3
1987	2565.1	440.0	67.6	68.5	66.6	63.2	66.6	62.6	6205	70.8
1988	2693.3	440.0	70.0	68.6	70.0	63.6	69.7	63.0	6639	75.6
1989	3515.8	440.0	92.2	69.9	91.3	65.0	91.2	64.5	8324	95.0
1990	2558.6	440.0	66.4	69.7	66.4	65.1	66.4	64.6	6297	71.9
1991	3678.3	440.0	95.4	70.9	95.4	66.6	95.4	66.1	8528	97.4
1992	2377.3	440.0	69.7	70.9	69.2	66.7	61.5	65.9	6360	72.4
1993	3671.9	440.0	95.1	72.0	95.1	67.9	95.3	67.1	8444	96.4
1994	3134.1	440.0	82.0	72.4	81.2	68.5	81.3	67.7	7271	83.0
1995	3826.0	440.0	99.3	73.5	99.1	69.7	99.3	69.0	8760	100.0
1996	3203.8	440.0	83.2	73.8	82.5	70.2	82.9	69.6	7450	84.8
1997	3363.7	440.0	89.2	74.4	89.1	70.9	87.3	70.2	7853	89.7
1998	3792.5	446.0	98.0	75.3	97.5	71.9	97.1	71.2	8735	99.7
1999	3330.8	448.0	86.1	75.7	84.9	72.4	84.9	71.7	7639	87.2
2000	3854.6	446.0	98.8	76.4	98.4	73.2	98.4	72.6	8699	99.0
2001	3435.0	446.0	88.0	76.8	87.9	73.7	87.9	73.1	7737	88.3
2002	3841.4	446.0	98.8	77.5	98.3	74.5	98.3	73.9	8679	99.1
2003	3577.7	446.0	92.0	78.0	91.6	75.0	91.6	74.4	8085	92.3
2004	3873.8	446.0	98.8	78.6	98.7	75.7	98.9	75.2	8699	99.0
2005	3515.3	446.0	90.1	78.9	89.8	76.2	90.0	75.6	7946	90.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		79			453	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	706	91		1070		
D. Inspection, maintenance or repair without refuelling				48	1	
E. Testing of plant systems or components				2	5	
H. Nuclear regulatory requirements				21	38	18
J. Grid failure or grid unavailability					2	11
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				6	15	22
Z. Others					2	
Subtotal	706	170	0	1147	529	51
Total		876			1727	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		31
12. Reactor I&C Systems		40
13. Reactor Auxiliary Systems		10
14. Safety Systems		36
15. Reactor Cooling Systems	79	194
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		20
32. Feedwater and Main Steam System		27
35. All other I&C Systems		0
41. Main Generator Systems		4
42. Electrical Power Supply Systems		41
Total	79	403

ES-11 TRILLO-1**Operator:** CNAT (CENTRALES NUCLEARES ALMARAZ-TRILLO(ID/UFG/ENDESA/HC/NUCLENOR))**Contractor:** KWU (SIEMENS KRAFTWERK UNION AG)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1003.0 MW(e)

Design Net Capacity: 990.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8080.6 GW(e).h

Energy Availability Factor: 92.9%

Load Factor: 92.0%

Operating Factor: 93.3%

Energy Unavailability Factor: 7.1%

Total Off-line Time: 585 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	741.2	660.5	736.4	688.9	171.7	711.5	735.2	735.3	712.2	730.2	716.7	740.9	8080.6
EAF (%)	100.0	98.5	99.6	96.5	24.7	100.0	100.0	99.9	99.6	97.7	100.0	100.0	92.9
UCF (%)	100.0	98.5	99.6	96.5	24.7	100.0	100.0	99.9	99.6	97.7	100.0	100.0	92.9
LF (%)	99.3	98.0	98.7	95.4	23.0	98.5	98.5	98.5	98.6	97.9	99.2	99.3	92.0
OF (%)	100.0	99.1	99.9	96.7	26.9	100.0	100.0	100.0	99.7	98.9	100.0	100.0	93.3
EUF (%)	0.0	1.5	0.4	3.5	75.3	0.0	0.0	0.1	0.4	2.3	0.0	0.0	7.1
PUF (%)	0.0	0.0	0.0	3.5	57.8	0.0	0.0	0.0	0.0	1.4	0.0	0.0	5.3
UCLF (%)	0.0	1.5	0.4	0.0	17.5	0.0	0.0	0.1	0.4	0.8	0.0	0.0	1.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

UNIT OPERATED AT 100% POWER EXCEPT FOR PERIODS OF REPORTED OUTAGES.

5. Historical Summary

Date of Construction Start: 17 Aug 1979 **Lifetime Generation:** 130559.2 GW(e).h

Date of First Criticality: 14 May 1988 **Cumulative Energy Availability Factor:** 86.1%

Date of Grid Connection: 23 May 1988 **Cumulative Load Factor:** 85.5%

Date of Commercial Operation: 06 Aug 1988 **Cumulative Unit Capability Factor:** 86.3%

Cumulative Energy Unavailability Factor: 13.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	2419.5	990.0	72.7	72.7	72.7	72.7	66.3	66.3	2648	72.1
1989	7147.8	974.0	83.8	80.5	83.8	80.4	83.8	78.5	7665	87.5
1990	6372.4	974.0	74.7	78.1	74.7	78.1	74.7	76.9	7170	81.8
1991	6481.5	974.0	76.0	77.5	76.0	77.5	76.0	76.7	6891	78.7
1992	7938.5	1000.0	90.4	80.4	90.4	80.4	90.4	79.8	8028	91.4
1993	7395.9	1000.0	84.4	81.2	84.4	81.2	84.4	80.7	7512	85.8
1994	7927.7	1000.0	91.0	82.7	91.0	82.7	90.5	82.2	8009	91.4
1995	7472.6	1000.0	86.4	83.2	85.8	83.1	85.3	82.7	7597	86.7
1996	7626.3	1000.0	87.4	83.7	87.3	83.7	86.8	83.2	7713	87.8
1997	7765.5	1000.0	91.9	84.6	89.3	84.3	88.6	83.7	8066	92.1
1998	6589.7	1000.0	76.1	83.8	75.8	83.4	75.2	82.9	6686	76.3
1999	6828.8	1000.0	78.0	83.3	78.0	83.0	77.9	82.5	6876	78.5
2000	8206.5	1000.0	93.7	84.1	93.6	83.8	93.4	83.4	8251	93.9
2001	7907.4	1000.0	90.7	84.6	90.6	84.3	90.3	83.9	7966	90.9
2002	7827.0	1000.0	89.6	85.0	89.6	84.7	89.3	84.3	7876	89.9
2003	8114.7	1003.0	93.1	85.5	93.1	85.2	92.5	84.8	8210	93.7
2004	7980.1	1003.0	91.5	85.9	91.5	85.6	90.6	85.2	8121	92.4
2005	8080.6	1003.0	92.9	86.3	92.9	86.1	92.0	85.5	8175	93.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		138		4	107	
C. Inspection, maintenance or repair combined with refuelling	438			796		
D. Inspection, maintenance or repair without refuelling	9				28	
Subtotal	447	138	0	800	135	0
Total		585			935	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems		7
15. Reactor Cooling Systems		26
16. Steam generation systems		17
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries	138	20
32. Feedwater and Main Steam System		2
41. Main Generator Systems		9
42. Electrical Power Supply Systems		10
XX. Miscellaneous Systems		4
Total	138	106

ES-16 VANDELLOS-2

Operator: ANAV (ASOCIACION NUCLEAR ASCO-VANDELLOS A.I.E. (ENDESA/ID))

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1045.0 MW(e)
Design Net Capacity: 930.0 MW(e)
Design Discharge Burnup: 50500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4698.4 GW(e).h
Energy Availability Factor: 51.3%
Load Factor: 51.3%
Operating Factor: 53.2%
Energy Unavailability Factor: 48.7%
Total Off-line Time: 4103 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	776.7	699.5	339.2	0.0	0.0	0.0	0.0	0.0	613.3	759.2	740.3	770.2	4698.4
EAF (%)	99.9	99.6	43.6	-0.1	0.0	0.0	0.0	0.0	81.5	97.5	98.4	99.1	51.3
UCF (%)	100.0	100.0	47.5	-0.1	0.0	0.0	0.0	0.0	81.5	97.5	98.4	99.1	51.7
LF (%)	99.9	99.6	43.6	0.0	0.0	0.0	0.0	0.0	81.5	97.5	98.4	99.1	51.3
OF (%)	100.0	100.0	48.5	0.0	0.0	0.0	0.0	0.0	93.2	100.0	100.0	100.0	53.2
EUF (%)	0.1	0.4	56.4	100.1	100.0	100.0	100.0	100.0	18.5	2.5	1.6	0.9	48.7
PUF (%)	0.0	0.0	52.5	93.4	0.0	0.0	0.0	0.0	11.8	2.4	1.5	0.9	13.5
UCLF (%)	0.0	0.0	0.0	6.8	100.0	100.0	100.0	100.0	6.7	0.1	0.1	0.1	34.8
XUF (%)	0.1	0.4	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 29 Dec 1980
Date of First Criticality: 14 Nov 1987
Date of Grid Connection: 12 Dec 1987
Date of Commercial Operation: 08 Mar 1988

Lifetime Generation: 131094.4 GW(e).h
Cumulative Energy Availability Factor: 84.4%
Cumulative Load Factor: 84.4%
Cumulative Unit Capability Factor: 85.2%
Cumulative Energy Unavailability Factor: 15.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	4610.9	930.0	68.3	68.3	67.4	67.4	67.5	67.5	5180	70.5
1989	5868.8	943.0	70.6	69.6	70.6	69.1	71.0	69.4	6357	72.6
1990	7334.3	943.0	87.8	76.0	87.8	75.7	88.8	76.3	7925	90.5
1991	7214.9	953.0	88.5	79.3	86.3	78.5	86.4	79.0	7825	89.3
1992	6718.2	953.0	79.6	79.4	79.6	78.7	80.3	79.2	7249	82.5
1993	6910.4	961.0	84.3	80.2	82.4	79.4	82.1	79.7	7377	84.2
1994	7208.4	961.0	85.6	81.0	85.6	80.3	85.6	80.6	7676	87.6
1995	7571.3	961.0	89.5	82.1	89.5	81.5	89.9	81.8	7957	90.8
1996	7511.4	961.0	89.1	82.9	89.0	82.3	89.0	82.6	7942	90.4
1997	7243.1	961.0	88.7	83.5	85.5	82.7	86.0	83.0	7961	90.9
1998	8359.0	966.0	99.3	85.0	99.0	84.2	98.8	84.4	8760	100.0
1999	7224.4	1043.0	83.4	84.8	82.5	84.0	80.5	84.1	7430	84.8
2000	7976.9	1043.0	87.9	85.1	87.6	84.3	87.1	84.3	7852	89.4
2001	9010.3	1043.0	99.4	86.2	99.4	85.5	98.6	85.4	8727	99.6
2002	8010.1	1040.0	89.2	86.4	88.1	85.7	87.9	85.6	7881	90.0
2003	8219.3	1040.0	90.9	86.7	89.5	86.0	90.2	85.9	8067	92.1
2004	8677.0	1045.0	95.8	87.3	94.5	86.5	94.5	86.5	8429	96.0
2005	4698.4	1045.0	51.7	85.2	51.3	84.4	51.3	84.4	4657	53.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		3072			189	
B. Refuelling without a maintenance					11	
C. Inspection, maintenance or repair combined with refuelling	1032			548	1	
D. Inspection, maintenance or repair without refuelling				28		
E. Testing of plant systems or components				6	1	
J. Grid failure or grid unavailability					4	15
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						7
Subtotal	1032	3072	0	582	206	22
Total		4104			810	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		16
13. Reactor Auxiliary Systems	3072	1
15. Reactor Cooling Systems		37
31. Turbine and auxiliaries		15
32. Feedwater and Main Steam System		11
33. Circulating Water System		5
41. Main Generator Systems		11
42. Electrical Power Supply Systems		84
XX. Miscellaneous Systems		5
Total	3072	185

SE-8 BARSEBACK-2

Operator: BKAB (BARSEBECK KRAFT AB)

Contractor: ABBATOM (ABBATOM (formerly ASEA-ATOM))

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 615.0 MW(e)
Design Net Capacity: 570.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Permanent Shutdown

2. Production Summary 2005

Net Energy Production: 1898.7 GW(e).h
Energy Availability Factor: 87.9%
Load Factor: 85.8%
Operating Factor: 100.5%
Energy Unavailability Factor: 12.1%
Total Off-line Time: -18 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	435.0	401.8	426.9	345.1	289.9								1898.7
EAF (%)	98.1	100.0	96.0	80.2	65.3								87.9
UCF (%)	99.3	100.0	100.0	99.3	99.4								99.6
LF (%)	95.1	97.2	93.3	77.9	65.5								85.8
OF (%)	100.0	100.0	100.0	100.0	102.5								100.5
EUF (%)	1.9	0.0	4.0	19.8	34.7								12.1
PUF (%)	0.7	0.0	0.0	0.7	0.5								0.4
UCLF (%)	0.0	0.0	0.0	0.0	0.1								0.0
XUF (%)	1.2	0.0	4.0	19.1	34.1								11.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

BASED ON POLITICAL DECISION THE UNIT WAS PERMANENTLY SHUTDOWN ON 31 MAY 2005

5. Historical Summary

Date of Construction Start:	01 Jan 1973	Lifetime Generation:	108043.0 GW(e).h
Date of First Criticality:	20 Feb 1977	Cumulative Energy Availability Factor:	82.3%
Date of Grid Connection:	21 Mar 1977	Cumulative Load Factor:	77.4%
Date of Commercial Operation:	01 Jul 1977	Cumulative Unit Capability Factor:	83.8%
Date of Shutdown:	31 May 2005	Cumulative Energy Unavailability Factor:	17.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	2196.1	570.0	91.4	91.4	87.2	87.2	87.2	87.2	4147	93.9
1978	3836.2	570.0	76.8	81.7	76.8	80.3	76.8	80.3	7078	80.8
1979	3928.5	570.0	78.7	80.5	78.7	79.7	78.7	79.7	7376	84.2
1980	3376.8	570.0	73.2	78.4	73.2	77.8	67.4	76.2	6426	73.2
1981	3803.1	570.0	78.9	78.5	78.9	78.0	76.2	76.2	7590	86.6
1982	4606.1	570.0	96.1	81.7	96.1	81.3	92.2	79.1	8570	97.8
1983	3718.9	570.0	79.0	81.3	79.0	81.0	74.5	78.4	7383	84.3
1984	4020.9	570.0	82.7	81.5	82.7	81.2	80.3	78.6	7784	88.6
1985	4306.1	570.0	99.5	83.6	99.5	83.4	86.2	79.5	8759	100.0
1986	4129.2	585.0	83.3	83.6	83.3	83.3	81.4	79.7	7555	86.2
1987	4448.2	585.0	92.0	84.4	92.0	84.2	86.8	80.4	8253	94.2
1988	4392.6	585.0	89.7	84.9	89.7	84.7	85.5	80.9	7926	90.2
1989	4206.2	600.0	94.0	85.6	94.0	85.5	80.0	80.8	8244	94.1
1990	4208.6	600.0	88.4	85.8	88.4	85.7	80.1	80.7	7817	89.2
1991	4614.2	600.0	94.4	86.4	94.4	86.3	87.8	81.2	8334	95.1
1992	2642.6	600.0	56.4	84.4	50.7	83.9	50.1	79.2	5053	57.5
1993	2859.0	600.0	62.9	83.1	55.1	82.1	54.4	77.6	5545	63.3
1994	3745.3	615.0	88.2	83.4	84.7	82.3	69.5	77.1	6861	78.3
1995	3751.0	615.0	76.5	83.0	74.2	81.8	69.6	76.7	6724	76.8
1996	Data not provided									
1997	"									
1998	"									
1999	"									
2000	"									
2001	"									
2002	"									
2003	"									
2004	4692.0	615.0	91.3	83.5	89.0	82.2	86.9	77.3	8044	91.6
2005	1898.7	615.0	99.6	83.8	87.9	82.3	85.8	77.4	3618	100.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					309	
C. Inspection, maintenance or repair combined with refuelling				503		
E. Testing of plant systems or components				19	1	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	1
M. Governmental requirements or court decisions	6					
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)					13	
Subtotal	6	0	0	522	324	1
Total	6			847		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		62
12. Reactor I&C Systems		1
13. Reactor Auxiliary Systems		42
14. Safety Systems		129
15. Reactor Cooling Systems		10
31. Turbine and auxiliaries		23
32. Feedwater and Main Steam System		2
33. Circulating Water System		3
41. Main Generator Systems		33
42. Electrical Power Supply Systems		0
XX. Miscellaneous Systems		0
Total	0	305

SE-9 FORSMARK-1

Operator: FKA (FORSMARK KRAFTGRUPP AB)
Contractor: ABBATOM (ABBATOM (formerly ASEA-ATOM))

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 961.0 MW(e)
Design Net Capacity: 890.0 MW(e)
Design Discharge Burnup: 42000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7337.4 GW(e).h
Energy Availability Factor: 84.6%
Load Factor: 84.6%
Operating Factor: 87.3%
Energy Unavailability Factor: 15.4%
Total Off-line Time: 1112 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	714.9	643.9	714.4	690.2	597.7	661.9	354.7	49.5	710.3	745.5	722.0	732.3	7337.4
EAF (%)	100.0	99.7	99.9	99.7	83.6	90.9	47.2	6.6	97.6	99.1	99.2	97.4	84.6
UCF (%)	100.0	99.7	99.9	99.9	84.1	93.2	52.7	6.8	99.7	100.0	99.6	97.4	85.6
LF (%)	100.0	99.7	99.9	99.7	83.6	90.9	47.2	6.6	97.6	99.1	99.2	97.4	84.6
OF (%)	100.0	100.0	100.0	100.0	90.3	93.2	52.7	14.1	100.0	100.0	100.0	100.0	87.3
EUF (%)	0.0	0.3	0.1	0.3	16.4	9.1	52.8	93.4	2.4	0.9	0.8	2.6	15.4
PUF (%)	0.0	0.3	0.0	0.0	0.0	0.0	47.3	93.2	0.3	0.0	0.4	0.0	12.3
UCLF (%)	0.0	0.0	0.1	0.1	15.9	6.8	0.0	0.0	0.0	0.0	0.0	2.6	2.1
XUF (%)	0.0	0.0	0.0	0.2	0.5	2.3	5.5	0.2	2.1	0.9	0.4	0.1	1.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE IS NO OPERATION HIGHLIGHTS TO REPORT FOR YEAR 2005. 27 LER'S HAVE BEEN WRITTEN AND NO ONE WAS CLASSIFIED AS SAFETY SIGNIFICANT.

5. Historical Summary

Date of Construction Start:	01 Jun 1973	Lifetime Generation:	169721.0 GW(e).h
Date of First Criticality:	23 Apr 1980	Cumulative Energy Availability Factor:	84.2%
Date of Grid Connection:	06 Jun 1980	Cumulative Load Factor:	81.0%
Date of Commercial Operation:	10 Dec 1980	Cumulative Unit Capability Factor:	86.5%
		Cumulative Energy Unavailability Factor:	15.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	669.6	900.0	100.0	100.0	100.0	100.0	100.0	100.0	744	100.0
1981	6063.7	900.0	76.9	78.7	76.9	78.7	76.9	78.7	7305	83.4
1982	5548.1	900.0	70.4	74.7	70.4	74.7	70.4	74.7	7131	81.4
1983	5926.0	900.0	75.2	74.9	75.2	74.9	75.2	74.9	8095	92.4
1984	6461.8	900.0	91.9	79.0	91.9	79.0	81.7	76.5	8207	93.4
1985	5587.6	900.0	79.4	79.1	79.4	79.1	70.9	75.4	7773	88.7
1986	7317.2	970.0	89.8	81.0	89.8	81.0	87.5	77.5	8303	94.8
1987	6493.4	970.0	79.5	80.7	79.5	80.7	76.4	77.4	8291	94.6
1988	6852.8	970.0	81.8	80.9	81.8	80.9	80.4	77.8	7739	88.1
1989	6138.6	967.0	85.5	81.4	85.5	81.4	72.3	77.1	7907	90.3
1990	6257.5	967.0	85.8	81.9	85.8	81.9	73.9	76.8	7885	90.0
1991	7486.6	968.0	90.6	82.7	88.3	82.5	88.3	77.9	8122	92.7
1992	6833.6	968.0	85.2	82.9	80.3	82.3	80.4	78.1	8174	93.1
1993	7022.8	968.0	91.9	83.6	82.7	82.3	82.8	78.5	8009	91.4
1994	7393.4	968.0	91.4	84.2	87.0	82.6	87.2	79.1	8109	92.6
1995	7325.2	968.0	91.3	84.6	86.2	82.9	86.4	79.6	8173	93.3
1996	7311.4	968.0	95.3	85.3	86.4	83.1	86.0	80.0	8412	95.8
1997	5403.0	968.0	64.6	84.1	64.6	82.0	63.5	79.0	6255	71.2
1998	7307.0	968.0	93.6	84.6	93.6	82.7	86.2	79.4	8265	94.3
1999	7583.0	968.0	96.7	85.3	96.3	83.4	89.4	79.9	8420	96.1
2000	5731.0	968.0	86.0	85.3	80.2	83.2	67.4	79.3	7203	82.0
2001	7286.0	968.0	94.8	85.8	86.3	83.4	85.9	79.6	8482	96.8
2002	7143.0	961.0	90.0	86.0	86.0	83.5	84.9	79.9	7978	91.1
2003	7456.0	961.0	88.5	86.1	88.5	83.7	88.6	80.2	8093	92.4
2004	8029.0	961.0	97.5	86.5	95.6	84.2	95.1	80.9	8555	97.4
2005	7337.4	1011.0	85.6	86.5	84.6	84.2	84.6	81.0	7648	87.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					98	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				622		
D. Inspection, maintenance or repair without refuelling				26		
E. Testing of plant systems or components				4		
F. Major back-fitting, refurbishment or upgrading activities with refuelling	991					
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						17
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)		121				
Subtotal	991	121	0	652	101	19
Total	1112			772		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems		8
13. Reactor Auxiliary Systems		6
15. Reactor Cooling Systems		13
17. Safety I&C Systems (excluding reactor I&C)		3
21. Fuel Handling and Storage Facilities		32
31. Turbine and auxiliaries		8
32. Feedwater and Main Steam System		3
41. Main Generator Systems		5
XX. Miscellaneous Systems		2
Total	0	93

SE-11 FORSMARK-2

Operator: FKA (FORSMARK KRAFTGRUPP AB)

Contractor: ABBATOM (ABBATOM (formerly ASEA-ATOM))

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 954.0 MW(e)
Design Net Capacity: 890.0 MW(e)
Design Discharge Burnup: 42000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7815.5 GW(e).h
Energy Availability Factor: 93.7%
Load Factor: 93.7%
Operating Factor: 95.3%
Energy Unavailability Factor: 6.3%
Total Off-line Time: 412 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	708.7	641.1	709.6	684.3	686.6	395.8	550.8	683.9	665.2	701.0	681.6	707.0	7815.5
EAF (%)	99.9	100.0	100.0	99.6	96.7	57.8	77.8	96.7	97.1	99.1	99.5	99.9	93.7
UCF (%)	99.9	100.0	100.0	99.8	97.3	58.9	80.7	100.0	99.2	99.9	100.0	100.0	94.6
LF (%)	99.9	100.0	100.0	99.8	96.7	57.8	77.8	96.7	97.1	98.9	99.5	99.9	93.7
OF (%)	100.0	100.0	100.0	100.1	100.0	62.6	80.8	100.0	100.0	99.9	100.0	100.0	95.3
EUF (%)	0.1	0.0	0.0	0.4	3.3	42.2	22.2	3.3	2.9	0.9	0.5	0.1	6.3
PUF (%)	0.1	0.0	0.0	0.2	2.6	41.1	0.0	0.0	0.1	0.0	0.0	0.0	3.6
UCLF (%)	0.0	0.0	0.0	0.1	0.1	0.0	19.3	0.0	0.7	0.1	0.0	0.0	1.7
XUF (%)	0.0	0.0	0.0	0.2	0.5	1.1	2.9	3.3	2.0	0.8	0.4	0.1	1.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING YEAR 2005 WAS 27 LER'S WRITTEN, ONE WAS CLASSIFIED AS SAFETY SIGNIFICANT. THE LER CLASSIFIED AS SAFETY SIGNIFICANT WAS DUE TO LEAKAGES IN A ISOLATION VALVE ASSOCIATED WITH CONTAINMENT FLOOR DRAIN SYSTEM. THIS ISOLATION VALVE FAILURE WAS ALSO CLASSIFIED AND REPORTED AS INES 1 ON THE IAEA NUCLEAR SCALE.

5. Historical Summary

Date of Construction Start:	01 Jan 1975	Lifetime Generation:	165465.0 GW(e).h
Date of First Criticality:	16 Nov 1980	Cumulative Energy Availability Factor:	84.7%
Date of Grid Connection:	26 Jan 1981	Cumulative Load Factor:	81.0%
Date of Commercial Operation:	07 Jul 1981	Cumulative Unit Capability Factor:	86.8%
		Cumulative Energy Unavailability Factor:	15.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	2870.7	900.0	72.2	72.2	72.2	72.2	72.2	72.2	3977	90.1
1982	5316.4	900.0	67.4	69.0	67.4	69.0	67.4	69.0	6076	69.4
1983	5484.4	900.0	69.6	69.2	69.6	69.2	69.6	69.2	7879	89.9
1984	5911.7	900.0	82.6	73.1	82.6	73.0	74.8	70.8	7442	84.7
1985	5735.4	900.0	83.8	75.4	83.8	75.4	72.7	71.3	8048	91.9
1986	6987.9	946.0	86.5	77.5	86.5	77.5	85.0	73.8	8231	94.0
1987	6553.8	949.0	85.5	78.8	85.5	78.8	78.8	74.6	8190	93.5
1988	6976.2	963.0	83.2	79.4	83.2	79.4	82.5	75.7	8032	91.4
1989	5943.4	968.0	90.0	80.7	90.0	80.7	70.4	75.1	8222	93.9
1990	6426.2	970.0	88.6	81.6	88.6	81.6	75.6	75.1	8119	92.7
1991	7155.2	969.0	85.8	82.0	84.2	81.8	84.3	76.0	8083	92.3
1992	6748.9	969.0	86.2	82.4	79.2	81.6	79.3	76.3	8293	94.4
1993	6715.5	969.0	88.8	82.9	79.1	81.4	79.2	76.6	7683	87.8
1994	7679.5	969.0	92.5	83.6	90.4	82.1	90.5	77.6	8194	93.6
1995	7149.2	969.0	91.6	84.2	84.1	82.2	84.2	78.1	8143	93.0
1996	7348.2	969.0	91.2	84.7	86.2	82.5	86.3	78.6	8134	92.6
1997	7325.0	969.0	87.4	84.8	87.4	82.8	86.1	79.1	7927	90.2
1998	7199.0	969.0	92.1	85.3	91.9	83.3	84.8	79.4	8240	94.1
1999	7292.0	964.0	91.8	85.6	91.8	83.8	86.0	79.8	8117	92.7
2000	5429.0	964.0	80.8	85.4	76.7	83.4	64.1	79.0	6946	79.1
2001	7400.0	964.0	92.3	85.7	88.8	83.7	87.6	79.4	8321	95.0
2002	6824.0	964.0	89.9	85.9	82.2	83.6	80.8	79.5	8155	93.1
2003	7303.9	959.0	87.1	86.0	87.1	83.8	86.9	79.8	7916	90.4
2004	7978.7	954.0	96.9	86.4	95.2	84.3	95.2	80.5	8529	97.1
2005	7815.5	951.0	94.6	86.8	93.7	84.7	93.7	81.0	8348	95.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					160	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling				553		
D. Inspection, maintenance or repair without refuelling				56		
F. Major back-fitting, refurbishment or upgrading activities with refuelling	269					
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						20
L. Human factor related		21			0	
P. Fire		122				
Subtotal	269	143	0	609	163	20
Total		412			792	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		1
13. Reactor Auxiliary Systems		2
14. Safety Systems		1
15. Reactor Cooling Systems		12
21. Fuel Handling and Storage Facilities		83
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		6
42. Electrical Power Supply Systems		1
Total	0	133

SE-14 FORSMARK-3

Operator: FKA (FORSMARK KRAFTGRUPP AB)
Contractor: ABBATOM (ABBATOM (formerly ASEA-ATOM))

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1190.0 MW(e)
Design Net Capacity: 1050.0 MW(e)
Design Discharge Burnup: 42000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9858.9 GW(e).h
Energy Availability Factor: 94.6%
Load Factor: 94.6%
Operating Factor: 96.9%
Energy Unavailability Factor: 5.4%
Total Off-line Time: 269 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	878.2	799.3	884.8	854.5	746.1	586.3	837.5	840.8	827.6	871.8	848.1	883.9	9858.9
EAF (%)	99.2	100.0	99.9	99.7	84.3	68.4	94.6	95.0	96.6	98.5	99.0	99.8	94.6
UCF (%)	99.2	100.0	99.9	100.0	85.0	71.0	100.0	99.9	100.0	100.0	99.8	100.0	96.2
LF (%)	99.2	100.0	99.9	99.9	84.3	68.4	94.6	95.0	96.6	98.3	99.0	99.8	94.6
OF (%)	100.0	100.0	100.0	100.1	89.1	73.9	100.0	100.0	100.0	99.9	100.0	100.0	96.9
EUf (%)	0.8	0.0	0.1	0.3	15.7	31.6	5.4	5.0	3.4	1.5	1.0	0.2	5.4
PUf (%)	0.0	0.0	0.1	0.0	15.0	29.0	0.0	0.1	0.0	0.0	0.1	0.0	3.7
UCLF (%)	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
XUF (%)	0.0	0.0	0.0	0.3	0.7	2.5	5.4	4.9	3.4	1.5	0.8	0.2	1.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE IS NO OPERATION HIGHLIGHTS TO REPORT FOR YEAR 2005. 25 LER HAVE BEEN REPORTED AND NO ONE WAS CLASSIFIED AS SAFETY SIGNIFICANT.

5. Historical Summary

Date of Construction Start: 01 Jan 1979 **Lifetime Generation:** 174195.0 GW(e).h
Date of First Criticality: 28 Oct 1984 **Cumulative Energy Availability Factor:** 87.5%
Date of Grid Connection: 05 Mar 1985 **Cumulative Load Factor:** 84.7%
Date of Commercial Operation: 18 Aug 1985 **Cumulative Unit Capability Factor:** 89.9%
Cumulative Energy Unavailability Factor: 12.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	3296.6	1050.0	93.8	93.8	93.8	93.8	85.5	85.5	3509	95.5
1986	8069.6	1060.0	88.4	90.0	88.4	90.0	86.9	86.5	7983	91.1
1987	7038.9	1063.0	77.9	84.9	77.9	84.9	75.6	82.0	7866	89.8
1988	7462.9	1068.0	80.4	83.6	80.4	83.6	79.6	81.3	7807	88.9
1989	7367.2	1150.0	85.8	84.1	85.8	84.1	75.2	79.8	7792	88.9
1990	7942.1	1150.0	90.6	85.4	90.6	85.4	78.8	79.6	8165	93.2
1991	8665.1	1155.0	87.5	85.7	85.6	85.4	85.6	80.6	8324	95.0
1992	8176.2	1197.0	89.4	86.3	81.2	84.8	77.8	80.2	7954	90.6
1993	8457.9	1158.0	93.2	87.1	83.4	84.6	83.4	80.6	8244	94.2
1994	9228.8	1158.0	93.4	87.8	90.9	85.3	91.1	81.7	8277	94.6
1995	8945.9	1158.0	92.8	88.3	88.2	85.6	88.2	82.4	8250	94.2
1996	8819.2	1158.0	89.1	88.4	86.7	85.7	86.7	82.8	8008	91.2
1997	8955.0	1158.0	89.9	88.5	89.9	86.0	88.0	83.2	8004	91.1
1998	8961.0	1158.0	93.9	88.9	93.8	86.6	88.3	83.6	8227	93.9
1999	8825.0	1155.0	91.1	89.1	91.0	86.9	87.1	83.8	8005	91.4
2000	7934.0	1155.0	94.9	89.5	87.7	87.0	78.1	83.5	8038	91.5
2001	8182.0	1155.0	86.2	89.3	81.8	86.7	80.9	83.3	7585	86.6
2002	9079.0	1158.0	95.0	89.6	91.2	86.9	89.5	83.7	8450	96.5
2003	9100.3	1155.0	89.9	89.6	89.9	87.1	89.9	84.0	8507	97.1
2004	8970.4	1190.0	89.4	89.6	87.7	87.1	87.6	84.2	7886	89.8
2005	9858.9	1190.0	96.2	89.9	94.6	87.5	94.6	84.7	8491	96.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					48	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				554		
D. Inspection, maintenance or repair without refuelling				14		
F. Major back-fitting, refurbishment or upgrading activities with refuelling	269					
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						10
Subtotal	269	0	0	568	50	10
Total	269			628		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		5
15. Reactor Cooling Systems		11
21. Fuel Handling and Storage Facilities		6
31. Turbine and auxiliaries		10
41. Main Generator Systems		0
42. Electrical Power Supply Systems		13
Total	0	46

SE-2 OSKARSHAMN-1

Operator: OKG (OKG AKTIEBOLAG)

Contractor: ASEASTAL (ASEA-ATOM / STAL-LAVAL)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 467.0 MW(e)
Design Net Capacity: 440.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3265.9 GW(e).h
Energy Availability Factor: 79.5%
Load Factor: 79.8%
Operating Factor: 81.4%
Energy Unavailability Factor: 20.5%
Total Off-line Time: 1631 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	353.4	319.7	345.7	321.6	149.8	0.0	205.9	296.1	331.8	343.1	294.2	304.6	3265.9
EAF (%)	100.0	100.0	99.4	95.7	44.5	0.0	57.2	85.1	98.5	98.7	87.3	87.9	79.5
UCF (%)	100.0	100.0	99.4	95.7	46.7	0.0	59.4	87.0	99.0	98.8	87.3	87.9	80.0
LF (%)	101.7	101.9	99.5	95.8	43.1	0.0	59.3	85.2	98.7	98.6	87.5	87.7	79.8
OF (%)	100.0	100.0	99.1	95.1	49.1	0.0	66.5	89.7	100.0	100.0	88.5	89.1	81.4
EUF (%)	0.0	0.0	0.6	4.3	55.5	100.0	42.8	14.9	1.5	1.3	12.7	12.1	20.5
PUF (%)	0.0	0.0	0.3	0.0	0.0	85.0	19.3	0.0	0.0	0.1	0.0	0.0	8.7
UCLF (%)	0.0	0.0	0.3	4.3	53.3	15.0	21.3	13.1	1.1	1.1	12.7	12.1	11.3
XUF (%)	0.0	0.0	0.0	0.0	2.3	0.0	2.2	1.8	0.5	0.0	0.0	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THE ANNUAL OUTAGE WAS STARTED EARLIER AND LASTED LONGER THAN EXPECTED DUE TO A FAILURE IN HIGH PRESSURE TURBINE. TOTAL OUTAGE LASTED 62 DAYS COMPARED TO PLANNED 31 DAYS. OUT OF THE UNPLANNED 31 DAYS 26 WAS CONSIDERED AS FORCED OUTAGE TIME AND 5 DAYS AS OUTAGE EXTENTIONS. IN DECEMBER THE UNIT WAS DOWN 81 H IN ORDER TO FIX VIBRATIONS IN PIPINGS TO AUXILIARY HEAT REMOVAL CONDENSER AND A LEAKING CLEANING WATER PIPE FOR A MAIN RECIRCULATING PUMP.

5. Historical Summary

Date of Construction Start: 01 Aug 1966
Date of First Criticality: 12 Dec 1970
Date of Grid Connection: 19 Aug 1971
Date of Commercial Operation: 06 Feb 1972

Lifetime Generation: 81953.1 GW(e).h
Cumulative Energy Availability Factor: 63.3%
Cumulative Load Factor: 61.8%
Cumulative Unit Capability Factor: 65.1%
Cumulative Energy Unavailability Factor: 36.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	1300.9	458.0	100.0	100.0	41.4	41.4	35.3	35.3	3342	41.6
1973	1967.7	440.0	51.0	74.9	51.0	46.3	51.1	43.4	4871	55.6
1974	1283.8	440.0	33.2	60.8	33.1	41.8	33.3	40.0	3067	35.0
1975	2682.4	440.0	74.0	64.1	73.6	49.9	69.6	47.5	6483	74.0
1976	2469.5	440.0	71.5	65.6	70.4	54.0	63.9	50.8	6278	71.5
1977	2577.1	440.0	69.2	66.2	69.0	56.5	66.9	53.5	6540	74.7
1978	3113.7	440.0	83.9	68.8	83.7	60.4	80.8	57.4	7390	84.4
1979	2716.3	440.0	70.5	69.0	70.5	61.7	70.5	59.0	6422	73.3
1980	2994.1	440.0	78.1	70.0	77.8	63.5	77.5	61.1	7221	82.2
1981	2885.8	440.0	74.9	70.5	74.9	64.6	74.9	62.5	7094	81.0
1982	2937.7	440.0	76.2	71.0	76.2	65.7	76.2	63.7	6967	79.5
1983	3133.3	440.0	81.3	71.9	81.3	67.0	81.3	65.2	7694	87.8
1984	2959.7	440.0	81.1	72.6	81.1	68.1	76.6	66.1	7249	82.5
1985	2753.2	440.0	71.8	72.5	71.8	68.4	71.4	66.5	6491	74.1
1986	3134.4	440.0	81.9	73.2	81.9	69.3	81.3	67.5	7359	84.0
1987	3232.5	440.0	86.6	74.0	86.6	70.3	83.9	68.5	7809	89.1
1988	2863.1	442.0	73.6	74.0	73.6	70.5	73.7	68.8	6827	77.7
1989	3175.6	442.0	87.0	74.7	87.0	71.5	82.0	69.5	7788	88.9
1990	2493.8	442.0	64.1	74.1	64.1	71.1	64.4	69.3	5794	66.1
1991	3349.2	442.0	86.1	74.7	86.1	71.8	86.5	70.1	7856	89.7
1992	1784.8	442.0	45.9	73.4	45.9	70.6	46.0	69.0	4362	49.7
1993	0.0	442.0	-0.1	70.0	-0.1	67.4	0.0	65.8	0	0.0
1994	0.0	445.0	0.0	66.9	0.0	64.4	0.0	62.9	0	0.0
1995	0.0	445.0	0.0	64.1	0.0	61.7	0.0	60.3	0	0.0
1996	2380.0	442.0	61.1	64.0	61.1	61.7	61.3	60.3	5564	63.3
1997	2925.9	442.0	75.8	64.4	75.8	62.2	75.6	60.9	6716	76.7
1998	1297.7	445.0	32.6	63.3	32.6	61.1	33.3	59.9	2968	33.9
1999	3298.9	445.0	86.7	64.1	86.7	62.0	84.6	60.8	7647	87.3
2000	3060.2	445.0	88.8	65.0	88.8	63.0	78.3	61.4	7765	88.4
2001	3080.9	445.0	83.7	65.6	83.7	63.7	79.0	62.0	7462	85.2
2002	0.0	445.0	0.0	63.5	0.0	61.6	0.0	60.0	0	0.0
2003	3058.4	467.0	75.9	63.9	74.8	62.0	74.5	60.4	7075	80.8
2004	3536.5	467.0	87.9	64.6	85.8	62.8	86.2	61.3	7743	88.1
2005	3265.9	467.0	80.0	65.1	79.5	63.3	79.8	61.8	7129	81.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		681		2	686	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	732	129		792	67	
D. Inspection, maintenance or repair without refuelling				741		
E. Testing of plant systems or components				3	4	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				244	9	
H. Nuclear regulatory requirements					229	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					120	
L. Human factor related		99				
Z. Others					10	
Subtotal	732	909	0	1782	1129	1
Total	1641			2912		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		123
12. Reactor I&C Systems		103
13. Reactor Auxiliary Systems	21	15
14. Safety Systems		26
15. Reactor Cooling Systems	60	26
21. Fuel Handling and Storage Facilities		20
31. Turbine and auxiliaries	581	251
32. Feedwater and Main Steam System		26
33. Circulating Water System	19	
35. All other I&C Systems		4
41. Main Generator Systems		62
42. Electrical Power Supply Systems		25
XX. Miscellaneous Systems		2
Total	681	683

SE-3 OSKARSHAMN-2

Operator: OKG (OKG AKTIEBOLAG)

Contractor: ABBATOM (ABBATOM (formerly ASEA-ATOM))

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 602.0 MW(e)
Design Net Capacity: 580.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4728.1 GW(e).h
Energy Availability Factor: 90.0%
Load Factor: 89.7%
Operating Factor: 93.5%
Energy Unavailability Factor: 10.0%
Total Off-line Time: 573 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	436.5	400.4	441.9	425.6	428.1	415.3	374.1	82.7	418.7	439.4	426.3	438.9	4728.1
EAF (%)	97.3	98.9	98.7	98.2	98.3	96.5	84.0	18.9	96.6	98.2	98.3	98.4	90.0
UCF (%)	98.1	99.6	99.5	99.5	99.8	99.5	95.9	19.4	99.0	99.7	99.4	99.2	92.3
LF (%)	97.5	99.0	98.7	98.3	95.6	95.8	83.5	18.5	96.6	98.0	98.4	98.0	89.7
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	100.0	23.0	100.0	100.0	100.0	100.0	93.5
EUF (%)	2.7	1.1	1.3	1.8	1.7	3.5	16.0	81.1	3.4	1.8	1.7	1.6	10.0
PUF (%)	0.0	0.0	0.4	0.0	0.0	0.3	3.5	69.2	0.0	0.0	0.0	0.3	6.3
UCLF (%)	1.9	0.4	0.1	0.5	0.2	0.3	0.6	11.4	1.0	0.3	0.6	0.5	1.5
XUF (%)	0.8	0.7	0.8	1.2	1.5	3.0	11.9	0.6	2.5	1.4	1.1	0.9	2.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

ANNUAL OUTAGE WAS PERFORMED DURING JULY-AUGUST FOR 26 DAYS. THE OUTAGE WAS EXTENDED BY 3,5 DAYS.

5. Historical Summary

Date of Construction Start:	01 Sep 1969	Lifetime Generation:	122476.3 GW(e).h
Date of First Criticality:	06 Mar 1974	Cumulative Energy Availability Factor:	79.0%
Date of Grid Connection:	02 Oct 1974	Cumulative Load Factor:	75.6%
Date of Commercial Operation:	01 Jan 1975	Cumulative Unit Capability Factor:	79.7%
		Cumulative Energy Unavailability Factor:	21.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	3010.6	580.0	65.0	65.0	64.5	64.5	59.3	59.3	5694	65.0
1976	2893.0	570.0	65.3	65.1	63.8	64.1	57.8	58.5	5744	65.4
1977	3160.9	590.0	65.0	65.1	65.0	64.4	61.2	59.4	6372	72.7
1978	3638.3	570.0	72.9	67.0	72.9	66.5	72.9	62.7	6695	76.4
1979	3789.2	570.0	74.5	68.5	74.5	68.1	75.9	65.3	7473	85.3
1980	4172.3	570.0	86.1	71.4	86.1	71.1	83.3	68.3	7699	87.6
1981	3836.5	570.0	76.7	72.2	76.7	71.9	76.8	69.5	7432	84.8
1982	4248.7	570.0	85.3	73.8	85.3	73.6	85.1	71.5	7905	90.2
1983	4054.3	595.0	86.9	75.3	86.9	75.1	77.8	72.2	7703	87.9
1984	4797.6	595.0	92.2	77.0	92.2	76.8	91.8	74.2	8253	94.0
1985	3988.7	595.0	86.9	78.0	86.9	77.8	76.5	74.4	7739	88.3
1986	4277.8	595.0	83.9	78.5	83.9	78.3	82.1	75.1	7770	88.7
1987	4230.8	595.0	83.5	78.9	83.5	78.7	81.2	75.6	7789	88.9
1988	4417.4	605.0	85.9	79.4	85.9	79.2	83.1	76.1	7894	89.9
1989	3960.7	605.0	88.3	80.0	88.3	79.9	74.7	76.0	8065	92.1
1990	4050.3	605.0	84.1	80.3	84.1	80.1	76.4	76.0	7885	90.0
1991	4103.4	605.0	79.4	80.2	79.4	80.1	77.4	76.1	7467	85.2
1992	2851.5	605.0	55.3	78.8	55.3	78.7	53.7	74.8	5310	60.5
1993	2611.5	605.0	55.3	77.5	51.0	77.2	49.3	73.5	4924	56.2
1994	4460.8	605.0	88.6	78.1	86.8	77.7	84.2	74.0	7833	89.4
1995	4175.8	605.0	83.6	78.4	79.4	77.8	78.8	74.2	7452	85.1
1996	3760.4	605.0	73.1	78.1	71.7	77.5	70.8	74.1	6543	74.5
1997	4417.4	605.0	86.4	78.5	85.4	77.8	83.4	74.5	7707	88.0
1998	4457.8	605.0	90.3	79.0	90.3	78.4	84.1	74.9	7951	90.8
1999	3198.2	605.0	64.7	78.4	64.7	77.8	60.3	74.3	5667	64.7
2000	3898.5	605.0	85.3	78.7	85.3	78.1	73.4	74.3	7525	85.7
2001	4748.5	602.0	92.3	79.2	92.3	78.6	90.0	74.9	8113	92.6
2002	4508.6	602.0	91.2	79.6	90.6	79.1	85.5	75.2	8043	91.8
2003	3055.3	602.0	59.5	78.9	58.3	78.3	57.9	74.6	5289	60.4
2004	4625.9	602.0	89.1	79.3	87.7	78.7	87.5	75.1	7900	89.9
2005	4728.1	602.0	92.3	79.7	90.0	79.0	89.7	75.6	8187	93.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					210	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	515	82		898	86	
D. Inspection, maintenance or repair without refuelling				47		
E. Testing of plant systems or components					3	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				17		
H. Nuclear regulatory requirements					136	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					92	2
L. Human factor related					0	
Z. Others					4	
Subtotal	515	82	0	962	534	3
Total	597			1499		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		29
12. Reactor I&C Systems		10
13. Reactor Auxiliary Systems		0
14. Safety Systems		7
15. Reactor Cooling Systems		24
31. Turbine and auxiliaries		87
32. Feedwater and Main Steam System		19
33. Circulating Water System		0
35. All other I&C Systems		1
41. Main Generator Systems		6
42. Electrical Power Supply Systems		1
XX. Miscellaneous Systems		0
Total	0	184

SE-12 OSKARSHAMN-3**Operator:** OKG (OKG AKTIEBOLAG)**Contractor:** ASEASTAL (ASEA-ATOM / STAL-LAVAL)**1. Station Details**

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1160.0 MW(e)
Design Net Capacity: 1050.0 MW(e)
Design Discharge Burnup: 32000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8573.4 GW(e).h
Energy Availability Factor: 85.5%
Load Factor: 84.4%
Operating Factor: 87.6%
Energy Unavailability Factor: 14.5%
Total Off-line Time: 1089 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	847.0	766.2	852.8	756.6	2.5	777.1	720.5	832.0	817.3	692.0	825.7	683.7	8573.4
EAF (%)	99.2	99.3	100.0	91.7	0.3	94.7	84.7	97.6	99.0	81.1	100.0	80.4	85.5
UCF (%)	99.2	99.3	100.0	99.5	0.3	96.3	87.2	99.9	99.5	81.2	100.0	80.4	86.7
LF (%)	98.1	98.3	98.8	90.6	0.3	93.0	83.5	96.4	97.9	80.2	98.9	79.2	84.4
OF (%)	99.7	100.0	99.9	100.0	0.8	97.5	89.5	100.0	100.0	83.3	100.0	82.8	87.6
EUf (%)	0.8	0.7	0.0	8.3	99.7	5.3	15.3	2.4	1.0	18.9	0.0	19.6	14.5
PUF (%)	0.0	0.1	0.0	0.5	94.3	0.7	0.1	0.0	0.1	18.6	0.0	19.6	11.4
UCLF (%)	0.8	0.5	0.0	0.0	5.4	3.0	12.7	0.1	0.4	0.2	0.0	0.0	2.0
XUF (%)	0.0	0.0	0.0	7.8	0.0	1.5	2.4	2.2	0.5	0.1	0.0	0.0	1.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

ANNUAL OUTAGE AND REFUELLING WAS PERFORMED DURING APRIL 30 UNTIL MAY 31 INCLUDED AN EXTENTION OF 1.7 DAYS. JULY 2, 6 DAYS COLD SHUT DOWN FOR FIXING MALFUNCTIONING MSIV. OCTOBER 15 AND DECEMBER 24, COLD SHUT DOWN FOR 6 AND 7 DAYS RESPECTIVELY, DUE TO CHANGING DEFECT FUEL ASSEMBLIES.

5. Historical Summary

Date of Construction Start: 01 May 1980 **Lifetime Generation:** 169651.1 GW(e).h
Date of First Criticality: 29 Dec 1984 **Cumulative Energy Availability Factor:** 87.1%
Date of Grid Connection: 03 Mar 1985 **Cumulative Load Factor:** 83.0%
Date of Commercial Operation: 15 Aug 1985 **Cumulative Unit Capability Factor:** 87.8%
Cumulative Energy Unavailability Factor: 12.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	3070.3	1050.0	92.7	92.7	92.7	92.7	79.6	79.6	3429	93.4
1986	8386.9	1070.0	90.1	90.9	90.1	90.9	89.5	86.6	8111	92.6
1987	7058.0	1070.0	79.6	86.2	79.6	86.2	75.3	81.9	7988	91.2
1988	7311.9	1065.0	82.1	85.0	82.1	85.0	78.2	80.8	7458	84.9
1989	7788.2	1140.0	91.3	86.4	91.3	86.4	82.0	81.1	8242	94.1
1990	7640.2	1160.0	82.2	85.6	82.2	85.6	80.1	80.9	7782	88.8
1991	8935.8	1160.0	89.3	86.2	89.3	86.2	87.9	82.1	8184	93.4
1992	8270.6	1160.0	82.6	85.7	82.5	85.7	81.2	81.9	7904	90.0
1993	8339.5	1160.0	91.6	86.5	83.8	85.5	82.1	82.0	8034	91.7
1994	8480.4	1160.0	85.0	86.3	84.9	85.4	83.5	82.1	7832	89.4
1995	8828.1	1160.0	89.8	86.6	87.5	85.6	86.9	82.6	7957	90.8
1996	8518.6	1160.0	85.2	86.5	85.0	85.6	83.6	82.7	7519	85.6
1997	8970.4	1160.0	91.1	86.9	91.1	86.0	88.3	83.2	8017	91.5
1998	8032.3	1160.0	89.4	87.1	89.4	86.3	79.0	82.8	7914	90.3
1999	8516.6	1160.0	89.2	87.2	89.2	86.5	83.8	82.9	7850	89.6
2000	7219.1	1160.0	91.2	87.5	91.2	86.8	70.8	82.1	8075	91.9
2001	9052.0	1160.0	92.6	87.8	92.6	87.2	89.1	82.5	8160	93.2
2002	8884.0	1160.0	92.3	88.1	92.3	87.5	87.4	82.8	8140	92.9
2003	7678.0	1160.0	78.0	87.5	76.2	86.9	75.6	82.4	6871	78.4
2004	9318.5	1160.0	93.1	87.8	92.6	87.2	91.5	82.9	8236	93.8
2005	8573.4	1160.0	86.7	87.8	85.5	87.1	84.4	83.0	7671	87.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		153			97	
B. Refuelling without a maintenance					11	
C. Inspection, maintenance or repair combined with refuelling	697	41		563	19	
D. Inspection, maintenance or repair without refuelling	317			10		
H. Nuclear regulatory requirements					53	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					21	
L. Human factor related		10				
Z. Others					5	
Subtotal	1014	204	0	573	206	0
Total		1218			779	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		1
14. Safety Systems		13
15. Reactor Cooling Systems		27
21. Fuel Handling and Storage Facilities		13
31. Turbine and auxiliaries	23	15
32. Feedwater and Main Steam System	130	9
35. All other I&C Systems		0
Total	153	95

SE-4 RINGHALS-1

Operator: RAB (Ringhals AB)

Contractor: ABBATOM (ABBATOM (formerly ASEA-ATOM))

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 830.0 MW(e)
Design Net Capacity: 760.0 MW(e)
Design Discharge Burnup: 41000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6064.8 GW(e).h
Energy Availability Factor: 83.5%
Load Factor: 83.4%
Operating Factor: 85.1%
Energy Unavailability Factor: 16.5%
Total Off-line Time: 1308 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	610.5	565.7	523.5	603.8	555.4	545.2	592.5	582.2	35.2	225.2	597.5	628.2	6064.8
EAF (%)	97.7	100.0	83.5	100.0	90.0	92.8	99.8	98.3	4.9	36.8	98.9	100.0	83.5
UCF (%)	100.0	100.0	83.5	100.0	90.0	92.8	100.0	100.0	5.4	36.8	98.9	100.0	83.9
LF (%)	98.9	101.4	84.8	101.0	89.9	91.2	95.9	94.3	5.9	36.5	100.0	101.7	83.4
OF (%)	98.5	100.0	88.8	100.0	91.1	93.9	100.0	100.0	7.8	40.9	100.0	100.0	85.1
EUF (%)	2.3	0.0	16.5	0.0	10.0	7.2	0.2	1.7	95.1	63.2	1.1	0.0	16.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.7	12.7	1.1	0.0	9.0
UCLF (%)	0.0	0.0	16.5	0.0	10.0	7.2	0.0	0.0	0.0	50.4	0.0	0.0	7.1
XUF (%)	2.3	0.0	0.0	0.0	0.0	0.0	0.2	1.7	0.5	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

NORMAL OPERATION AT FULL POWER IN BASE LOAD MODE UNDER THE YEAR.1. GRID PROBLEMS DUE TO STORM IN JANUARY.2. STOP ONE TURBIN DUE TO PROBLEMS WITH A UNIT SELF-CONSUMPTION TRANSFORMER.3. STOP OF REACTOR (COLD SHUTDOWN) DUE TO LEAKAGE IN THE PRIMARY COOLANT TREATMENT AND CLEAN-UP SYSTEM IN THE BEGINNING OF MARCH.4. STOP OF REACTOR (COLD SHUTDOWN) DUE TO LEAKAGE IN THE SYSTEM FOR COOLING OF THE REACTOR VESSEL HEAD IN THE END OF MAY.5. COASTDOWN STARTED IN THE MIDDLE OF AUGUST.6. FULL OUTAGE (SHUTDOWN) FOR MAINTENANCE AND REFUELLING STARTED IN THE BEGINNING OF SEPTEMBER AND ENDED IN THE MIDDLE OF OCTOBER AND STOP OF ONE TURBIN DUE TO BALANCE PROBLEMS IN THE LATE OCTOBER.

5. Historical Summary

Date of Construction Start: 01 Feb 1969
Date of First Criticality: 20 Aug 1973
Date of Grid Connection: 14 Oct 1974
Date of Commercial Operation: 01 Jan 1976

Lifetime Generation: 140931.0 GW(e).h
Cumulative Energy Availability Factor: 72.1%
Cumulative Load Factor: 67.4%
Cumulative Unit Capability Factor: 73.0%
Cumulative Energy Unavailability Factor: 27.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	2164.6	760.0	32.4	32.4	32.4	32.4	32.4	32.4	4269	48.6
1977	3531.2	760.0	53.0	42.7	53.0	42.7	53.0	42.7	6095	69.6
1978	4153.1	750.0	63.2	49.5	63.2	49.5	63.2	49.5	6099	69.6
1979	3868.2	750.0	58.9	51.8	58.9	51.8	58.9	51.8	6070	69.3
1980	4433.8	750.0	68.8	55.2	68.2	55.1	67.3	54.9	6362	72.4
1981	4059.4	750.0	61.8	56.3	61.8	56.2	61.8	56.0	6285	71.7
1982	4687.5	750.0	74.9	58.9	74.9	58.8	71.3	58.2	7162	81.8
1983	3265.0	750.0	49.7	57.8	49.7	57.7	49.7	57.2	5372	61.3
1984	4917.7	750.0	79.8	60.2	79.7	60.1	74.6	59.1	7382	84.0
1985	5168.8	750.0	86.0	62.8	86.0	62.7	78.7	61.0	7832	89.4
1986	4470.5	750.0	69.9	63.4	69.9	63.4	68.0	61.7	7203	82.2
1987	4872.7	750.0	77.7	64.6	77.7	64.6	74.2	62.7	7878	89.9
1988	4694.7	750.0	75.1	65.4	74.7	65.3	71.3	63.4	7338	83.5
1989	4855.3	750.0	81.8	66.6	81.8	66.5	73.4	64.1	7963	90.9
1990	4525.6	795.0	71.6	66.9	71.4	66.9	65.0	64.2	7918	90.4
1991	5638.9	795.0	82.6	68.0	82.5	67.9	81.0	65.3	8034	91.7
1992	3383.8	795.0	51.2	66.9	51.2	66.9	48.5	64.2	4938	56.2
1993	3996.4	795.0	68.5	67.0	68.5	67.0	57.4	63.8	6575	75.1
1994	5389.2	795.0	78.0	67.6	76.4	67.5	77.4	64.6	7189	82.1
1995	5667.0	826.0	78.3	68.2	78.2	68.1	78.3	65.3	7697	87.9
1996	6490.9	837.0	90.3	69.3	90.1	69.2	88.7	66.5	8008	91.2
1997	2035.6	830.0	97.3	70.7	95.8	70.5	28.0	64.6	2663	30.4
1998	5601.6	830.0	84.8	71.4	80.7	71.0	77.0	65.2	7605	86.8
1999	4930.4	825.0	73.3	71.5	68.4	70.8	68.2	65.3	6500	74.2
2000	3239.7	825.0	57.2	70.8	50.8	70.0	44.7	64.5	4659	53.0
2001	5835.0	825.0	86.1	71.5	86.1	70.7	80.7	65.1	7814	89.2
2002	5956.2	830.0	84.7	72.0	80.4	71.0	81.9	65.8	7667	87.5
2003	5104.3	830.0	70.4	71.9	70.2	71.0	70.2	66.0	6269	71.6
2004	6523.1	830.0	90.1	72.6	89.7	71.7	89.5	66.8	7974	90.8
2005	6064.8	830.0	83.9	73.0	83.5	72.1	83.4	67.4	7452	85.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		661			559	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	824			980	42	
D. Inspection, maintenance or repair without refuelling				2		
E. Testing of plant systems or components					6	
H. Nuclear regulatory requirements						14
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					31	11
L. Human factor related					2	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			34			
Z. Others					14	
Subtotal	824	661	34	982	656	28
Total		1519			1666	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		185
12. Reactor I&C Systems		74
13. Reactor Auxiliary Systems	277	1
14. Safety Systems		49
15. Reactor Cooling Systems		121
31. Turbine and auxiliaries	384	20
32. Feedwater and Main Steam System		33
35. All other I&C Systems		1
41. Main Generator Systems		0
42. Electrical Power Supply Systems		12
XX. Miscellaneous Systems		0
Total	661	496

SE-5 RINGHALS-2

Operator: RAB (Ringhals AB)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 875.0 MW(e)
Design Net Capacity: 820.0 MW(e)
Design Discharge Burnup: 47000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5784.4 GW(e).h
Energy Availability Factor: 77.9%
Load Factor: 75.5%
Operating Factor: 78.5%
Energy Unavailability Factor: 22.1%
Total Off-line Time: 1886 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	607.8	306.5	0.0	0.0	537.1	601.6	616.2	618.1	604.8	631.9	617.8	642.6	5784.4
EAF (%)	94.3	52.8	0.7	0.4	84.3	99.8	100.0	99.9	99.9	100.0	100.0	99.9	77.9
UCF (%)	100.0	52.8	0.7	0.4	84.4	99.8	100.0	99.9	99.9	100.0	100.0	100.0	78.4
LF (%)	93.4	52.1	0.0	0.0	82.5	95.5	94.7	94.9	96.0	96.9	98.1	98.7	75.5
OF (%)	96.6	52.8	0.0	0.0	89.2	100.0	100.0	100.0	100.0	99.9	100.0	100.0	78.5
EUF (%)	5.7	47.2	99.3	99.6	15.7	0.2	0.0	0.1	0.1	0.0	0.0	0.1	22.1
PUF (%)	0.0	0.0	80.1	0.0	3.2	0.2	0.0	0.0	0.1	0.0	0.0	0.1	7.1
UCLF (%)	0.0	47.2	19.2	99.6	12.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	14.5
XUF (%)	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

NORMAL OPERATION AT FULL POWER IN BASE LOAD MODE UNDER THE YEAR.1. GRID PROBLEMS DUE TO STORM WITH REACTOR SCRAM IN JANUARY. 2. UNPLANNED OUTAGES IN THE MIDDLE OF FEBRUARY DUE TO FAULT IN STEELLINER (IN THE CONTAINMENT STRUCTURE).3. FULL OUTAGE (SHUTDOWN) FOR MAINTENANCE AND REFUELLING STARTED IN THE BEGINNING OF MARCH AND ENDED IN THE BEGINNING OF MAY.4. ONE TURBIN TRIPPED ON HIGH LEVEL IN A DRAINAGETANK (IN CONDENSATE SYSTEM) IN THE END OF MAY.5. STOPPED ONE TURBIN DUE TO GRID PROBLEMS IN THE END OF JUNE.

5. Historical Summary

Date of Construction Start: 01 Oct 1970
Date of First Criticality: 19 Jun 1974
Date of Grid Connection: 17 Aug 1974
Date of Commercial Operation: 01 May 1975

Lifetime Generation: 153905.0 GW(e).h
Cumulative Energy Availability Factor: 70.9%
Cumulative Load Factor: 66.3%
Cumulative Unit Capability Factor: 73.5%
Cumulative Energy Unavailability Factor: 29.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	2162.0	820.0	100.0	100.0	44.9	44.9	44.8	44.8	3382	57.5
1976	4213.0	822.0	59.4	75.7	59.4	53.6	58.3	52.9	6167	70.2
1977	4114.4	822.0	57.1	68.7	57.1	54.9	57.1	54.5	6402	73.1
1978	4094.4	800.0	58.4	66.0	58.4	55.8	58.4	55.6	6772	77.3
1979	3585.3	800.0	51.2	62.8	51.2	54.9	51.2	54.6	5541	63.3
1980	4336.9	800.0	61.7	62.7	61.7	56.1	61.7	55.9	5824	66.3
1981	4093.2	800.0	58.4	62.0	58.4	56.4	58.4	56.2	6216	71.0
1982	4548.0	800.0	66.3	62.6	66.3	57.7	64.9	57.4	5922	67.6
1983	3935.3	800.0	56.2	61.8	56.2	57.5	56.2	57.2	6107	69.7
1984	4178.7	800.0	68.3	62.5	68.2	58.6	59.5	57.5	6090	69.3
1985	4294.7	800.0	74.8	63.7	74.8	60.1	61.3	57.8	6680	76.3
1986	3969.1	800.0	59.4	63.3	59.4	60.1	56.6	57.7	6383	72.9
1987	4216.6	800.0	65.2	63.4	65.2	60.5	60.2	57.9	7397	84.4
1988	4216.1	800.0	68.5	63.8	68.5	61.0	60.0	58.1	7368	83.9
1989	3619.6	800.0	50.0	62.9	50.0	60.3	51.6	57.6	6002	68.5
1990	5064.8	800.0	66.7	63.1	66.7	60.7	72.3	58.6	6348	72.5
1991	6232.8	875.0	83.5	64.4	83.5	62.2	81.3	60.0	7909	90.3
1992	5193.4	875.0	72.1	64.9	72.1	62.8	67.6	60.5	6959	79.2
1993	2650.0	875.0	37.8	63.4	37.8	61.4	34.6	59.0	3307	37.8
1994	6258.7	875.0	84.7	64.5	83.0	62.5	81.7	60.2	7429	84.8
1995	6096.6	867.0	85.6	65.6	84.8	63.7	80.3	61.3	7676	87.6
1996	5723.3	864.0	84.6	66.5	76.8	64.3	75.4	61.9	7574	86.2
1997	2372.1	864.0	98.8	68.0	98.2	65.9	31.3	60.5	2748	31.4
1998	6096.4	875.0	90.5	69.0	82.2	66.6	79.5	61.4	7866	89.8
1999	6445.8	862.0	92.2	70.0	85.8	67.4	85.4	62.4	8075	92.2
2000	5143.5	862.0	84.8	70.6	77.0	67.8	67.9	62.6	7284	82.9
2001	6322.7	862.0	87.0	71.2	85.7	68.5	83.7	63.4	8004	91.4
2002	6540.3	875.0	89.2	71.9	84.3	69.1	85.3	64.3	8130	92.8
2003	6811.5	875.0	92.5	72.7	90.9	69.9	88.9	65.2	8093	92.4
2004	6786.6	875.0	90.3	73.3	90.3	70.6	88.3	66.0	7976	90.8
2005	5784.4	875.0	78.4	73.5	77.9	70.9	75.5	66.3	6874	78.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1265			667	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	599			977		
D. Inspection, maintenance or repair without refuelling				86		
E. Testing of plant systems or components				3		
H. Nuclear regulatory requirements					4	
J. Grid failure or grid unavailability						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						8
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			61			
Z. Others					1	
Subtotal	599	1265	61	1066	672	13
Total		1925			1751	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		179
12. Reactor I&C Systems		7
14. Safety Systems	1265	39
15. Reactor Cooling Systems		18
16. Steam generation systems		240
21. Fuel Handling and Storage Facilities		49
31. Turbine and auxiliaries		15
32. Feedwater and Main Steam System		38
33. Circulating Water System		0
35. All other I&C Systems		0
41. Main Generator Systems		37
42. Electrical Power Supply Systems		31
Total	1265	653

SE-7 RINGHALS-3

Operator: RAB (Ringhals AB)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 915.0 MW(e)
 Design Discharge Burnup: 46000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7181.6 GW(e).h
 Energy Availability Factor: 90.5%
 Load Factor: 89.6%
 Operating Factor: 92.2%
 Energy Unavailability Factor: 9.5%
 Total Off-line Time: 685 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	654.5	621.8	687.5	659.2	501.8	191.4	648.4	636.2	637.6	669.2	588.2	685.8	7181.6
EAF (%)	95.3	100.0	100.0	99.9	73.8	29.5	100.0	97.5	100.0	100.0	89.7	100.0	90.5
UCF (%)	99.4	100.0	100.0	100.0	77.6	29.5	100.0	97.5	100.0	100.0	89.7	100.0	91.2
LF (%)	96.1	101.1	101.0	100.1	73.7	29.0	95.2	93.5	96.8	98.3	89.3	100.7	89.6
OF (%)	97.0	100.0	100.0	100.0	78.0	32.8	100.0	98.0	100.0	100.0	100.0	100.0	92.2
EUF (%)	4.7	0.0	0.0	0.1	26.2	70.5	0.0	2.5	0.0	0.0	10.3	0.0	9.5
PUF (%)	0.0	0.0	0.0	0.0	22.4	57.4	0.0	0.0	0.0	0.0	0.0	0.0	6.6
UCLF (%)	0.6	0.0	0.0	0.0	0.0	13.1	0.0	2.5	0.0	0.0	10.3	0.0	2.2
XUF (%)	4.1	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE.1. GRID PROBLEMS DUE TO STORM WITH REACTOR SCRAM IN JANUARY.2. COAST-DOWN MODE STARTED IN THE END OF APRIL.3. FULL OUTAGE (SHUTDOWN) FOR MAINTENANCE AND REFUELLING IN THE END OF MAY AND ENDED IN THE END OF JUNE.4. AUTO REACTOR SCRAM DUE TO FEEDWATER PROBLEMS (LOW LEVEL IN SG) IN THE MIDDLE OF AUGUST.5. PARTIAL OUTAGE FOR REPAIR OF MOISTURE SEPARATOR AND REHEATER ON ONE TURBIN IN THE END OF NOVEMBER.6. REDUCE POWER DUE TO GRID PROBLEMS IN THE END OF DECEMBER.

5. Historical Summary

Date of Construction Start: 01 Sep 1972
Date of First Criticality: 29 Jul 1980
Date of Grid Connection: 07 Sep 1980
Date of Commercial Operation: 09 Sep 1981

Lifetime Generation: 146567.0 GW(e).h
Cumulative Energy Availability Factor: 77.7%
Cumulative Load Factor: 71.8%
Cumulative Unit Capability Factor: 80.0%
Cumulative Energy Unavailability Factor: 22.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	721.0	920.0	100.0	100.0	26.7	26.7	26.8	26.8	864	29.5
1982	1251.6	915.0	15.6	36.8	15.6	18.4	15.6	18.4	3680	42.0
1983	2909.9	915.0	38.2	37.4	38.2	26.7	38.2	26.7	5886	67.2
1984	5346.6	915.0	72.4	48.1	72.4	40.6	66.5	38.8	6450	73.4
1985	6090.3	915.0	84.8	56.7	84.8	50.9	76.0	47.5	7580	86.5
1986	6233.9	915.0	78.8	60.8	78.8	56.2	77.8	53.2	7026	80.2
1987	6169.2	915.0	83.1	64.4	83.1	60.5	77.0	57.0	7485	85.4
1988	6151.2	915.0	77.1	66.1	77.1	62.8	76.5	59.7	7645	87.0
1989	5829.7	915.0	82.6	68.1	82.6	65.2	72.7	61.3	7757	88.6
1990	5871.3	915.0	74.2	68.8	74.0	66.1	73.2	62.5	7855	89.7
1991	5923.6	915.0	75.7	69.4	75.7	67.0	73.9	63.6	8007	91.4
1992	5622.1	915.0	82.3	70.6	82.3	68.4	69.9	64.2	7941	90.4
1993	6685.8	915.0	89.8	72.2	89.8	70.1	83.4	65.8	7964	90.9
1994	6873.4	918.0	86.1	73.2	86.1	71.3	85.5	67.3	8097	92.4
1995	4873.6	918.0	60.7	72.3	60.7	70.6	60.6	66.8	6040	68.9
1996	6816.8	910.0	92.5	73.6	87.3	71.7	85.3	68.0	8166	93.0
1997	2284.3	910.0	95.5	75.0	95.5	73.1	28.7	65.6	2809	32.1
1998	6382.6	915.0	90.2	75.9	81.3	73.6	79.6	66.4	8008	91.4
1999	6976.0	911.0	90.0	76.6	88.0	74.4	87.4	67.5	7899	90.2
2000	6165.8	911.0	92.3	77.4	89.5	75.2	77.1	68.0	7966	90.7
2001	6285.3	911.0	88.6	78.0	79.4	75.4	78.8	68.6	7942	90.7
2002	6890.6	915.0	90.8	78.6	88.8	76.0	86.0	69.4	7930	90.5
2003	6714.6	915.0	85.3	78.9	84.4	76.4	83.8	70.0	7475	85.3
2004	7497.9	915.0	94.0	79.5	93.9	77.1	93.3	71.0	8295	94.4
2005	7181.6	915.0	91.2	80.0	90.5	77.7	89.6	71.8	8075	92.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		116			277	
C. Inspection, maintenance or repair combined with refuelling	597			626	18	
D. Inspection, maintenance or repair without refuelling				300		
E. Testing of plant systems or components				6	1	
H. Nuclear regulatory requirements				3		
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						5
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			40			
Z. Others					3	
Subtotal	597	116	40	935	299	8
Total		753			1242	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems		1
15. Reactor Cooling Systems	94	58
16. Steam generation systems		183
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System	22	14
42. Electrical Power Supply Systems		0
Total	116	270

SE-10 RINGHALS-4

Operator: RAB (Ringhals AB)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 915.0 MW(e)
 Design Net Capacity: 915.0 MW(e)
 Design Discharge Burnup: 46000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7129.8 GW(e).h
 Energy Availability Factor: 91.4%
 Load Factor: 89.0%
 Operating Factor: 92.2%
 Energy Unavailability Factor: 8.6%
 Total Off-line Time: 687 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	668.4	610.1	676.0	649.7	661.5	630.3	635.0	63.6	574.7	640.7	646.4	673.5	7129.8
EAF (%)	99.2	99.9	100.0	100.0	100.0	100.0	99.9	10.3	91.7	97.0	99.9	100.0	91.4
UCF (%)	100.0	99.9	100.0	100.0	100.0	100.0	100.0	10.7	91.7	97.0	99.9	100.0	91.5
LF (%)	98.2	99.2	99.3	98.6	97.2	95.7	93.3	9.3	87.2	94.1	98.1	98.9	89.0
OF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	10.8	96.8	100.0	100.0	100.0	92.2
EUF (%)	0.8	0.1	0.0	0.0	0.0	0.0	0.1	89.7	8.3	3.0	0.1	0.0	8.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.3	0.0	0.0	0.0	0.0	6.6
UCLF (%)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	12.0	8.3	3.0	0.1	0.0	2.0
XUF (%)	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE 1. REDUCE POWER DUE TO STORM IN JANUARY.2.
 COAST-DOWN STARTED IN THE END OF JULY.3. FULL OUTAGE (SHUTDOWN) FOR MAINTENANCE AND
 REFUELLING STARTED IN THE BEGINNING OF AUGUST AND ENDED IN THE BEGINNING OF SEPTEMBER.4.
 OCTOBER UNPLANNED PARTIAL OUTAGES DUE TO LEAKAGE IN ROTOR WATERCOOLING SYSTEM TO ONE OF THE
 MAIN GENERATORS.

5. Historical Summary

Date of Construction Start:	01 Nov 1973	Lifetime Generation:	141344.0 GW(e).h
Date of First Criticality:	19 May 1982	Cumulative Energy Availability Factor:	84.8%
Date of Grid Connection:	23 Jun 1982	Cumulative Load Factor:	76.4%
Date of Commercial Operation:	21 Nov 1983	Cumulative Unit Capability Factor:	86.6%
		Cumulative Energy Unavailability Factor:	15.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	879.6	915.0	65.7	65.7	65.7	65.7	65.7	65.7	1275	87.1
1984	5987.7	915.0	82.3	79.9	82.2	79.8	74.5	73.2	7517	85.6
1985	5923.7	915.0	87.9	83.6	87.9	83.6	73.9	73.5	7755	88.5
1986	5619.3	915.0	70.7	79.5	70.7	79.5	70.1	72.5	6839	78.1
1987	5665.9	915.0	88.2	81.6	88.2	81.6	70.7	72.0	7827	89.3
1988	6641.7	915.0	83.4	82.0	83.4	81.9	82.6	74.1	7945	90.4
1989	5536.8	915.0	85.8	82.6	85.8	82.6	69.1	73.3	7624	87.0
1990	6467.3	915.0	89.1	83.5	89.1	83.5	80.7	74.3	8080	92.2
1991	6916.2	915.0	85.9	83.8	85.9	83.8	86.3	75.8	8041	91.8
1992	6432.4	915.0	90.1	84.5	90.0	84.5	80.0	76.2	8156	92.9
1993	6342.3	915.0	88.8	84.9	88.8	84.9	79.1	76.5	7906	90.3
1994	6234.7	914.0	84.8	84.9	84.8	84.9	77.9	76.6	7476	85.3
1995	6251.7	912.0	88.4	85.2	80.6	84.5	78.3	76.8	7684	87.7
1996	6426.8	912.0	91.8	85.7	79.6	84.1	80.2	77.0	8067	91.8
1997	2560.0	912.0	98.9	86.6	98.9	85.2	32.0	73.9	2783	31.8
1998	6809.8	915.0	92.5	87.0	86.5	85.3	85.0	74.6	8146	93.0
1999	6986.8	907.0	91.7	87.3	88.6	85.5	87.9	75.4	8042	91.8
2000	4060.7	907.0	66.5	86.1	63.4	84.2	51.0	74.0	5898	67.1
2001	6624.0	909.0	88.4	86.2	86.5	84.3	83.2	74.5	7758	88.6
2002	5942.2	915.0	80.2	85.9	75.5	83.9	74.1	74.5	7056	80.5
2003	6996.5	915.0	89.2	86.1	88.9	84.1	87.3	75.1	7843	89.5
2004	7209.6	915.0	92.1	86.3	92.1	84.5	89.7	75.8	8092	92.1
2005	7129.8	915.0	91.5	86.6	91.4	84.8	89.0	76.4	8073	92.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		174			162	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	580			682	1	
D. Inspection, maintenance or repair without refuelling				250		
E. Testing of plant systems or components				44	20	
H. Nuclear regulatory requirements					3	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	
L. Human factor related					2	
Z. Others				1	18	
Subtotal	580	174	0	977	208	0
Total		754			1185	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems	89	
14. Safety Systems		1
15. Reactor Cooling Systems		88
16. Steam generation systems		36
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System	85	17
Total	174	159

CH-1 BEZNAU-1

Operator: NOK (NORDOSTSCHWEIZERISCHE KRAFTWERKE)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 365.0 MW(e)
Design Net Capacity: 350.0 MW(e)
Design Discharge Burnup: 42000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3096.0 GW(e).h
Energy Availability Factor: 96.6%
Load Factor: 96.8%
Operating Factor: 96.9%
Energy Unavailability Factor: 3.4%
Total Off-line Time: 270 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	274.4	247.8	273.9	264.8	272.6	259.6	162.0	268.0	261.0	272.7	264.8	274.4	3096.0
EAF (%)	99.9	99.9	100.0	99.9	99.9	99.8	61.2	100.0	100.0	100.0	99.9	99.9	96.6
UCF (%)	100.0	99.9	100.0	99.9	100.0	100.0	61.4	100.0	100.0	100.0	99.9	99.9	96.7
LF (%)	101.0	101.0	100.9	100.8	100.4	98.8	59.7	98.7	99.3	100.3	100.8	101.0	96.8
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	63.8	100.0	100.0	100.0	100.0	100.0	96.9
EUF (%)	0.1	0.1	0.0	0.1	0.1	0.2	38.8	0.0	0.0	0.0	0.1	0.1	3.4
PUF (%)	0.1	0.1	0.0	0.0	0.1	0.0	38.6	0.0	0.0	0.0	0.1	0.1	3.3
UCLF (%)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

OPERATION AT FULL POWER IN BASE LOAD MODE. REFUELLING OUTAGE OF ONLY 10 DAYS.

5. Historical Summary

Date of Construction Start: 01 Sep 1965
Date of First Criticality: 30 Jun 1969
Date of Grid Connection: 17 Jul 1969
Date of Commercial Operation: 01 Sep 1969

Lifetime Generation: 92282.0 GW(e).h
Cumulative Energy Availability Factor: 83.4%
Cumulative Load Factor: 81.9%
Cumulative Unit Capability Factor: 87.0%
Cumulative Energy Unavailability Factor: 16.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1969	0.0	364.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	1947.0	364.0	100.0	100.0	61.1	70.8	61.1	45.8	5917	67.5
1971	1700.5	364.0	100.0	100.0	59.0	65.7	53.3	49.0	5123	58.5
1972	1402.9	280.0	100.0	100.0	61.3	64.6	57.0	51.0	5391	61.4
1973	1655.0	350.0	73.9	93.8	71.6	66.3	54.0	51.7	6654	76.0
1974	2346.7	350.0	78.8	91.0	78.1	68.5	76.5	56.5	7177	81.9
1975	2490.9	350.0	81.2	89.4	81.2	70.6	81.2	60.4	7490	85.5
1976	2548.1	350.0	86.4	89.0	83.5	72.4	82.9	63.5	7530	85.7
1977	2596.3	350.0	85.4	88.5	85.2	73.9	84.7	66.1	7592	86.7
1978	2761.9	350.0	89.6	88.7	89.5	75.6	90.1	68.7	8031	91.7
1979	2658.8	350.0	86.1	88.4	86.1	76.6	86.7	70.5	7746	88.4
1980	2650.5	350.0	85.7	88.2	85.7	77.4	86.2	71.9	7682	87.5
1981	2569.7	350.0	83.5	87.8	83.5	77.9	83.8	72.8	7486	85.5
1982	2566.9	350.0	83.5	87.5	83.5	78.4	83.7	73.7	7553	86.2
1983	2551.7	350.0	83.5	87.2	83.5	78.7	83.2	74.3	7546	86.1
1984	2732.9	350.0	88.8	87.3	88.8	79.4	88.9	75.3	8001	91.1
1985	2634.3	350.0	86.0	87.2	86.0	79.8	85.9	76.0	7906	90.3
1986	2496.3	350.0	81.6	86.9	81.6	79.9	81.4	76.3	7403	84.5
1987	2486.3	350.0	80.7	86.6	80.7	79.9	81.1	76.5	7256	82.8
1988	2566.5	350.0	83.0	86.4	83.0	80.1	83.5	76.9	7499	85.4
1989	2433.1	350.0	78.6	86.0	78.6	80.0	79.4	77.0	7062	80.6
1990	2562.5	350.0	84.4	85.9	84.4	80.2	83.6	77.3	7506	85.7
1991	2495.3	350.0	83.5	85.8	83.5	80.4	81.4	77.5	7430	84.8
1992	2477.4	350.0	81.7	85.6	81.7	80.4	80.6	77.6	7303	83.1
1993	2158.4	350.0	69.9	85.0	69.4	80.0	70.4	77.3	6241	71.2
1994	2686.9	350.0	86.2	85.0	85.1	80.2	87.6	77.8	7610	86.9
1995	2850.5	350.0	90.5	85.2	90.2	80.6	93.0	78.3	7993	91.2
1996	2753.2	365.0	87.5	85.3	86.8	80.8	88.6	78.7	7704	87.7
1997	2708.2	365.0	87.5	85.4	85.1	81.0	84.7	78.9	7731	88.3
1998	3183.1	365.0	99.9	85.9	99.8	81.6	99.6	79.7	8760	100.0
1999	2841.3	365.0	91.3	86.1	88.6	81.9	88.9	80.0	8074	92.2
2000	2539.2	365.0	79.2	85.9	78.3	81.7	79.2	80.0	7113	81.0
2001	3090.2	365.0	96.8	86.2	96.8	82.2	96.6	80.5	8504	97.1
2002	2908.8	365.0	91.3	86.4	91.0	82.5	91.0	80.8	8000	91.3
2003	3061.8	365.0	96.9	86.7	96.2	82.9	95.8	81.3	8494	97.0
2004	2801.2	365.0	87.5	86.7	87.4	83.0	87.4	81.4	7758	88.3
2005	3096.0	365.0	96.7	87.0	96.6	83.4	96.8	81.9	8491	96.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					253	
B. Refuelling without a maintenance	345			7		
C. Inspection, maintenance or repair combined with refuelling				982		
D. Inspection, maintenance or repair without refuelling				19		
E. Testing of plant systems or components					0	
Subtotal	345	0	0	1008	253	0
Total	345			1261		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		18
12. Reactor I&C Systems		101
13. Reactor Auxiliary Systems		2
14. Safety Systems		3
15. Reactor Cooling Systems		12
16. Steam generation systems		99
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		14
35. All other I&C Systems		0
Total	0	251

CH-3 BEZNAU-2

Operator: NOK (NORDOSTSCHWEIZERISCHE KRAFTWERKE)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 365.0 MW(e)
Design Net Capacity: 350.0 MW(e)
Design Discharge Burnup: 42000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2801.0 GW(e).h
Energy Availability Factor: 87.8%
Load Factor: 87.6%
Operating Factor: 88.2%
Energy Unavailability Factor: 12.2%
Total Off-line Time: 1032 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	272.4	245.9	272.1	263.5	271.1	258.2	250.6	0.0	160.6	271.2	263.1	272.3	2801.0
EAF (%)	100.0	100.0	100.0	100.0	99.9	99.9	94.1	0.0	61.9	100.0	100.0	100.0	87.8
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	95.4	0.0	61.9	100.0	100.0	100.0	88.0
LF (%)	100.3	100.3	100.2	100.4	99.8	98.3	92.3	0.0	61.1	99.7	100.1	100.3	87.6
OF (%)	100.0	100.0	99.9	100.1	100.0	100.0	95.7	0.0	64.4	100.0	100.0	100.0	88.2
EUF (%)	0.0	0.0	0.0	0.0	0.1	0.1	5.9	100.0	38.1	0.0	0.0	0.0	12.2
PUF (%)	0.0	0.0	0.0	0.0	0.1	0.0	4.6	100.0	38.0	0.0	0.0	0.0	12.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

REPLACEMENT I&C OF TURBINES DURING MAINTENANCE OUTAGE OF 42 DAYS.

5. Historical Summary

Date of Construction Start: 01 Jan 1968
Date of First Criticality: 16 Oct 1971
Date of Grid Connection: 23 Oct 1971
Date of Commercial Operation: 01 Dec 1971

Lifetime Generation: 91707.0 GW(e).h
Cumulative Energy Availability Factor: 86.5%
Cumulative Load Factor: 86.9%
Cumulative Unit Capability Factor: 87.2%
Cumulative Energy Unavailability Factor: 13.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	174.9	291.0	100.0	100.0	94.6	94.6	80.8	80.8	690	92.7
1972	2618.5	364.0	100.0	100.0	82.7	83.5	81.9	81.8	7624	86.8
1973	2220.7	350.0	78.6	89.9	78.4	81.1	72.4	77.4	7042	80.4
1974	2527.8	350.0	84.0	88.0	83.5	81.9	82.4	79.0	7607	86.8
1975	2547.0	350.0	83.1	86.8	83.1	82.2	83.1	80.0	7503	85.7
1976	2652.2	350.0	86.8	86.8	86.6	83.0	86.3	81.2	7777	88.5
1977	2690.9	350.0	86.3	86.7	85.6	83.4	87.8	82.3	7758	88.6
1978	2753.1	350.0	87.8	86.9	86.7	83.9	89.8	83.3	7888	90.0
1979	2700.0	350.0	86.7	86.8	86.7	84.2	88.1	83.9	7835	89.4
1980	2559.0	350.0	81.0	86.2	81.0	83.9	83.2	83.9	7279	82.9
1981	2768.8	350.0	88.8	86.5	88.8	84.4	90.3	84.5	7868	89.8
1982	2722.1	350.0	87.6	86.6	87.6	84.7	88.8	84.9	7811	89.2
1983	2790.5	350.0	89.6	86.8	89.6	85.1	91.0	85.4	7977	91.1
1984	2724.2	350.0	87.5	86.9	87.5	85.3	88.6	85.6	7874	89.6
1985	2629.1	350.0	84.9	86.7	84.9	85.2	85.7	85.6	7647	87.3
1986	2769.8	350.0	90.2	87.0	90.2	85.6	90.3	85.9	7983	91.1
1987	2527.6	350.0	82.4	86.7	82.4	85.4	82.4	85.7	7535	86.0
1988	2630.2	350.0	84.5	86.5	84.5	85.3	85.6	85.7	7604	86.6
1989	2643.3	350.0	85.1	86.5	85.1	85.3	86.2	85.7	7614	86.9
1990	2636.1	350.0	85.3	86.4	85.3	85.3	86.0	85.8	7568	86.4
1991	2619.5	350.0	84.5	86.3	84.5	85.3	85.4	85.7	7551	86.2
1992	2375.9	350.0	76.3	85.8	76.3	84.8	77.3	85.3	6836	77.8
1993	2650.9	350.0	85.1	85.8	84.9	84.8	86.5	85.4	7517	85.8
1994	3062.8	350.0	98.9	86.4	98.8	85.4	99.9	86.0	8710	99.4
1995	2560.9	350.0	82.7	86.2	82.6	85.3	83.5	85.9	7247	82.7
1996	2754.1	357.0	88.5	86.3	87.9	85.4	89.1	86.0	7912	90.1
1997	3090.2	357.0	99.5	86.8	99.5	86.0	98.8	86.5	8732	99.7
1998	2717.8	357.0	87.8	86.9	87.3	86.0	86.9	86.6	7755	88.5
1999	2217.2	357.0	70.7	86.3	70.3	85.5	70.9	86.0	6322	72.2
2000	3071.0	365.0	96.2	86.6	96.2	85.8	95.8	86.3	8499	96.8
2001	2568.7	365.0	80.7	86.4	80.7	85.7	80.3	86.1	7107	81.1
2002	3012.0	365.0	94.6	86.7	94.6	86.0	94.2	86.4	8292	94.7
2003	2920.3	365.0	92.0	86.9	91.8	86.1	91.3	86.6	8070	92.1
2004	3099.4	365.0	97.0	87.2	97.0	86.5	96.7	86.9	8556	97.4
2005	2801.0	365.0	88.0	87.2	87.8	86.5	87.6	86.9	7728	88.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1			89	
B. Refuelling without a maintenance				15	1	
C. Inspection, maintenance or repair combined with refuelling	1106			842		
D. Inspection, maintenance or repair without refuelling				40		
J. Grid failure or grid unavailability						0
L. Human factor related					0	
Subtotal	1106	1	0	897	90	0
Total		1107			987	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		6
12. Reactor I&C Systems		8
13. Reactor Auxiliary Systems		1
14. Safety Systems		0
15. Reactor Cooling Systems		10
16. Steam generation systems		28
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries	1	15
32. Feedwater and Main Steam System		3
35. All other I&C Systems		1
42. Electrical Power Supply Systems		1
Total	1	74

CH-4 GOESGEN

Operator: KKG (KERNKRAFTWERK GOESGEN-DAENIKEN AG)

Contractor: KWU (SIEMENS KRAFTWERK UNION AG)

Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 970.0 MW(e)

Design Net Capacity: 920.0 MW(e)

Design Discharge Burnup: 52000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7588.2 GW(e).h

Energy Availability Factor: 88.0%

Load Factor: 89.3%

Operating Factor: 88.5%

Energy Unavailability Factor: 12.0%

Total Off-line Time: 1006 hours

2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	732.5	661.5	727.9	699.4	443.7	0.0	689.6	729.9	705.6	737.0	717.1	744.1	7588.2
EAF (%)	100.0	100.0	100.0	99.3	61.0	0.0	95.2	100.0	100.0	100.0	99.9	100.0	88.0
UCF (%)	100.0	100.0	100.0	100.0	64.9	0.0	95.2	100.0	100.0	100.0	99.9	100.0	88.4
LF (%)	101.5	101.5	100.9	100.3	61.5	0.0	95.6	101.1	101.0	102.0	102.7	103.1	89.3
OF (%)	100.0	100.0	99.9	100.1	65.2	0.0	96.4	100.0	100.0	100.0	100.0	100.0	88.5
EUf (%)	0.0	0.0	0.0	0.7	39.0	100.0	4.8	0.0	0.0	0.0	0.1	0.0	12.0
PUF (%)	0.0	0.0	0.0	0.0	35.1	100.0	3.4	0.0	0.0	0.0	0.0	0.0	11.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.1
XUF (%)	0.0	0.0	0.0	0.7	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

2005 Summary of Operation

Historical Summary

Date of Construction Start: 01 Dec 1973 Lifetime Generation: 193434.0 GW(e).h

Date of First Criticality: 20 Jan 1979 Cumulative Energy Availability Factor: 87.9%

Date of Grid Connection: 02 Feb 1979 Cumulative Load Factor: 88.0%

Date of Commercial Operation: 01 Nov 1979 Cumulative Unit Capability Factor: 88.8%

 Cumulative Energy Unavailability Factor: 12.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	1255.5	920.0	93.2	93.2	93.2	93.2	93.2	93.2	1422	97.1
1980	5935.7	920.0	73.5	76.3	73.5	76.3	73.4	76.3	6819	77.6
1981	6527.6	920.0	80.7	78.3	80.7	78.3	81.0	78.4	7523	85.9
1982	6436.1	920.0	79.8	78.8	79.8	78.8	79.9	78.9	7665	87.5
1983	6891.6	920.0	86.2	80.6	86.2	80.6	85.5	80.5	7790	88.9
1984	7134.8	900.0	90.6	82.5	89.8	82.3	90.2	82.3	8015	91.2
1985	6747.7	909.0	85.7	83.0	84.6	82.7	84.7	82.7	7789	88.9
1986	6754.5	941.0	84.1	83.1	82.8	82.7	81.9	82.6	7386	84.3
1987	6910.3	935.0	85.2	83.4	84.4	82.9	84.4	82.8	7521	85.9
1988	6859.0	936.0	84.7	83.5	83.4	83.0	83.4	82.9	7476	85.1
1989	6878.7	931.0	85.4	83.7	84.3	83.1	84.3	83.0	7514	85.8
1990	7131.5	929.0	89.4	84.2	87.6	83.5	87.6	83.5	7983	91.1
1991	7141.9	925.0	89.7	84.7	88.1	83.9	88.1	83.8	7918	90.4
1992	7406.9	944.0	92.1	85.3	90.2	84.4	90.2	84.3	8107	92.3
1993	7408.1	950.0	89.3	85.5	88.9	84.7	89.0	84.7	8075	92.2
1994	7661.1	947.0	92.1	86.0	91.1	85.1	92.3	85.2	8102	92.5
1995	7820.9	971.0	91.8	86.4	91.1	85.5	91.9	85.6	8109	92.6
1996	7928.4	986.0	93.4	86.8	91.5	85.9	91.5	86.0	8204	93.4
1997	7967.8	986.0	93.5	87.2	91.6	86.2	92.2	86.4	8189	93.5
1998	7839.7	986.0	93.2	87.5	90.8	86.5	90.8	86.6	8179	93.4
1999	7533.9	970.0	89.9	87.6	88.7	86.6	88.7	86.7	7887	90.0
2000	7804.3	970.0	92.0	87.8	91.6	86.8	91.8	86.9	8089	92.3
2001	7870.5	970.0	93.5	88.1	92.6	87.1	92.6	87.2	8206	93.7
2002	7853.3	970.0	92.9	88.3	92.3	87.3	92.4	87.4	8154	93.1
2003	7988.7	970.0	94.5	88.6	93.9	87.6	94.0	87.7	8291	94.6
2004	8015.6	970.0	94.3	88.8	93.8	87.9	94.1	88.0	8300	94.5
2005	7588.2	970.0	88.4	88.8	88.0	87.9	89.3	88.0	7754	88.5

Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1979 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	1006			771	38	0
C. Inspection, maintenance or repair combined with refuelling						
E. Testing of plant systems or components						
J. Grid failure or grid unavailability						
Subtotal	1006	0	0	771	38	0
Total	1006			809		

Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1979 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		4
16. Steam generation systems		2
31. Turbine and auxiliaries		5
32. Feedwater and Main Steam System		22
41. Main Generator Systems	0	4
Total		37

CH-5 LEIBSTADT

Operator: KKL (KERNKRAFTWERK LEIBSTADT)

Contractor: GETSCO (GENERAL ELECTRIC TECHNICAL SERVICES CO.)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 1165.0 MW(e)

Design Net Capacity: 942.0 MW(e)

Design Discharge Burnup: 43000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5768.1 GW(e).h

Energy Availability Factor: 56.3%

Load Factor: 56.5%

Operating Factor: 57.1%

Energy Unavailability Factor: 43.7%

Total Off-line Time: 3757 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	875.0	789.9	758.6	0.0	0.0	0.0	0.0	16.2	749.1	862.8	841.1	875.4	5768.1
EAF (%)	99.9	99.7	87.5	0.0	0.0	0.0	0.0	3.3	89.7	99.5	99.6	99.9	56.3
UCF (%)	99.9	99.8	87.6	0.0	0.0	0.0	0.0	3.3	90.9	100.0	99.8	100.0	56.5
LF (%)	100.9	100.9	87.5	0.0	0.0	0.0	0.0	1.9	89.3	99.4	100.3	101.0	56.5
OF (%)	100.0	100.0	87.5	0.0	0.0	0.0	0.0	6.3	94.6	100.0	100.0	100.0	57.1
EUF (%)	0.1	0.3	12.5	100.0	100.0	100.0	100.0	96.7	10.3	0.5	0.4	0.1	43.7
PUF (%)	0.0	0.3	0.0	0.0	0.0	0.0	0.0	45.2	0.0	0.0	0.2	0.0	3.9
UCLF (%)	0.1	0.0	12.4	100.0	100.0	100.0	100.0	51.6	9.1	0.0	0.0	0.0	39.6
XUF (%)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.2	0.4	0.1	0.1	0.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1974 Lifetime Generation: 164724.0 GW(e).h

Date of First Criticality: 09 Mar 1984 Cumulative Energy Availability Factor: 83.9%

Date of Grid Connection: 24 May 1984 Cumulative Load Factor: 84.0%

Date of Commercial Operation: 15 Dec 1984 Cumulative Unit Capability Factor: 85.9%

 Cumulative Energy Unavailability Factor: 16.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	0.0	1030.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1985	6769.3	950.0	80.1	81.8	80.1	81.8	81.2	74.4	7233	82.6
1986	7209.2	990.0	83.2	82.5	83.2	82.5	85.9	79.9	7668	87.5
1987	7376.4	990.0	85.2	83.4	85.2	83.4	85.1	81.6	7917	90.4
1988	7003.5	990.0	80.0	82.5	80.0	82.5	80.5	81.4	7536	85.8
1989	7364.2	990.0	85.5	83.1	85.5	83.1	84.9	82.1	7671	87.6
1990	7596.2	990.0	89.9	84.3	89.9	84.3	87.6	83.0	7905	90.2
1991	7060.3	990.0	86.0	84.5	81.3	83.8	81.4	82.8	7580	86.5
1992	7537.6	990.0	90.5	85.3	86.4	84.2	86.7	83.2	7986	90.9
1993	7338.1	990.0	89.1	85.7	84.4	84.2	84.6	83.4	7898	90.2
1994	6988.2	1030.0	81.4	85.3	79.4	83.7	79.5	83.0	7108	81.1
1995	7673.8	1030.0	89.1	85.6	84.2	83.7	85.0	83.2	7819	89.3
1996	7705.1	1030.0	87.6	85.8	84.8	83.8	85.2	83.4	7734	88.0
1997	7762.5	1030.0	89.2	86.1	86.2	84.0	86.0	83.6	7830	89.4
1998	8046.2	1030.0	92.4	86.5	88.2	84.3	89.2	84.0	8102	92.5
1999	8320.0	1080.0	91.8	86.9	86.8	84.5	87.9	84.3	8126	92.8
2000	8823.2	1115.0	92.3	87.3	89.5	84.8	90.1	84.7	8159	92.9
2001	Data not provided									
2002	9173.8	1115.0	91.5	87.5	90.8	85.2	93.9	85.3	8250	94.2
2003	9309.3	1165.0	90.9	87.7	90.1	85.5	91.2	85.6	8204	93.6
2004	8692.0	1165.0	85.7	87.6	84.9	85.5	84.9	85.6	7633	86.9
2005	5768.1	1165.0	56.5	85.9	56.3	83.9	56.5	84.0	5004	57.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		3716		0	46	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling				765		
D. Inspection, maintenance or repair without refuelling				21		
E. Testing of plant systems or components	0			0	1	
H. Nuclear regulatory requirements						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				3		
L. Human factor related		39				
Subtotal	0	3755	0	789	51	2
Total		3755			842	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		2
15. Reactor Cooling Systems		5
31. Turbine and auxiliaries		16
32. Feedwater and Main Steam System		8
35. All other I&C Systems		3
41. Main Generator Systems	3716	3
XX. Miscellaneous Systems		0
Total	3716	39

CH-2 MUEHLEBERG

Operator: BKW (BKW ENERGIE AG)

Contractor: GETSCO (GENERAL ELECTRIC TECHNICAL SERVICES CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 355.0 MW(e)
Design Net Capacity: 306.0 MW(e)
Design Discharge Burnup: 48000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2855.3 GW(e).h
Energy Availability Factor: 91.0%
Load Factor: 91.8%
Operating Factor: 92.8%
Energy Unavailability Factor: 9.0%
Total Off-line Time: 631 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	268.4	243.0	268.0	260.2	266.3	237.3	236.4	43.0	228.2	270.6	261.6	272.4	2855.3
EAF (%)	99.6	99.9	99.7	100.0	99.7	93.9	90.8	22.3	88.7	100.0	99.6	99.9	91.0
UCF (%)	99.6	100.0	99.7	100.0	99.7	99.8	100.0	24.4	90.7	100.0	99.6	99.9	92.7
LF (%)	101.6	101.9	101.5	101.8	100.8	92.9	89.5	16.3	89.3	102.3	102.3	103.1	91.8
OF (%)	100.0	100.0	99.9	100.0	100.0	100.0	100.0	20.2	95.0	100.0	100.0	100.0	92.8
EUF (%)	0.4	0.1	0.3	0.0	0.3	6.1	9.2	77.7	11.3	0.0	0.4	0.1	9.0
PUF (%)	0.4	0.1	0.3	0.0	0.3	0.2	0.1	75.6	9.3	0.0	0.4	0.1	7.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	5.9	9.2	2.1	2.0	0.0	0.0	0.0	1.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

NORMAL OPERATION WHITOUT ANY MAYOR PROBLEMS. THE PLANED COAST-DOWN OPERATION STARTED JULY 10TH. THE REFUELING AND MAINTENANCE OUTAGE LASTED 27 DAYS, FROM AUGUST 7TH TO SEPTEMBER 2ND. DURING THE WHOLE YEAR THE HYDROGEN INJECTION, IN OPERATION SINCE OCTOBER 2000, WAS APPLIED.

5. Historical Summary

Date of Construction Start:	01 Mar 1967	Lifetime Generation:	81336.0 GW(e).h
Date of First Criticality:	08 Mar 1971	Cumulative Energy Availability Factor:	85.9%
Date of Grid Connection:	01 Jul 1971	Cumulative Load Factor:	86.2%
Date of Commercial Operation:	06 Nov 1972	Cumulative Unit Capability Factor:	87.4%
		Cumulative Energy Unavailability Factor:	14.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	387.9	323.0	100.0	100.0	92.2	92.2	82.0	82.0	1334	91.1
1973	2011.6	306.0	84.4	86.7	80.7	82.4	75.0	76.1	7315	83.5
1974	1846.2	306.0	80.6	83.9	73.2	78.2	68.9	72.8	7062	80.6
1975	2344.1	306.0	87.3	85.0	87.1	81.0	87.4	77.4	7989	91.2
1976	2355.2	306.0	85.2	85.0	85.2	82.0	87.6	79.8	7960	90.6
1977	2429.3	320.0	85.7	85.2	85.7	82.7	86.7	81.2	8097	92.4
1978	2465.7	320.0	87.3	85.5	87.3	83.5	88.0	82.3	8001	91.3
1979	2473.9	320.0	87.7	85.8	87.7	84.1	88.3	83.2	8024	91.6
1980	2482.4	320.0	88.5	86.2	88.5	84.6	88.3	83.8	8005	91.1
1981	2539.0	324.0	89.1	86.5	89.1	85.2	89.5	84.5	8051	91.9
1982	2663.3	326.0	88.9	86.7	88.9	85.5	93.3	85.4	8017	91.5
1983	2564.3	326.0	89.6	87.0	89.6	85.9	89.8	85.8	8026	91.6
1984	2527.2	326.0	88.1	87.1	88.1	86.1	88.3	86.0	7989	90.9
1985	2500.7	322.0	87.3	87.1	87.2	86.2	88.2	86.1	7882	90.0
1986	2114.5	326.0	73.7	86.1	73.7	85.3	74.0	85.3	6645	75.9
1987	2465.0	326.0	85.5	86.1	85.5	85.3	86.3	85.3	7959	90.9
1988	2497.6	326.0	87.1	86.2	87.1	85.4	87.2	85.5	7968	90.7
1989	2297.5	322.0	81.3	85.9	81.3	85.2	81.0	85.2	7226	82.5
1990	2477.9	323.0	86.5	85.9	86.5	85.2	87.3	85.3	7910	90.3
1991	2415.1	322.0	87.3	86.0	84.8	85.2	85.4	85.3	7714	88.1
1992	2413.5	322.0	85.0	85.9	85.0	85.2	85.1	85.3	7755	88.3
1993	2568.5	355.0	88.5	86.1	86.8	85.3	86.5	85.4	7917	90.4
1994	2643.1	355.0	89.3	86.2	84.9	85.3	85.0	85.3	7952	90.8
1995	2669.0	355.0	87.8	86.3	85.4	85.3	85.8	85.4	7894	90.1
1996	2649.0	355.0	87.7	86.4	84.4	85.2	85.0	85.3	7847	89.3
1997	2549.2	355.0	86.9	86.4	81.8	85.1	82.0	85.2	7671	87.6
1998	2659.7	355.0	86.5	86.4	85.2	85.1	85.5	85.2	7886	90.0
1999	2702.8	355.0	87.2	86.4	86.6	85.1	86.9	85.3	8064	92.1
2000	2817.0	355.0	93.5	86.7	90.1	85.3	90.3	85.5	8290	94.4
2001	Data not provided									
2002	2828.2	355.0	91.4	86.9	87.7	85.4	90.9	85.7	8280	94.5
2003	2744.2	355.0	89.6	87.0	87.7	85.5	88.2	85.8	8034	91.7
2004	2906.1	355.0	93.3	87.2	92.4	85.7	93.2	86.0	8282	94.3
2005	2855.3	355.0	92.7	87.4	91.0	85.9	91.8	86.2	8130	92.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					187	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	618			754		
D. Inspection, maintenance or repair without refuelling				23		
E. Testing of plant systems or components				3		
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	0
Subtotal	618	0	0	780	190	1
Total	618			971		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems		0
14. Safety Systems		2
15. Reactor Cooling Systems		1
31. Turbine and auxiliaries		171
32. Feedwater and Main Steam System		1
35. All other I&C Systems		0
42. Electrical Power Supply Systems		0
Total	0	182

UA-40 KHMELNITSKI-1

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6862.8 GW(e).h
Energy Availability Factor: 84.8%
Load Factor: 82.5%
Operating Factor: 84.9%
Energy Unavailability Factor: 15.2%
Total Off-line Time: 1327 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	516.2	651.2	719.4	482.4	0.0	377.0	706.8	684.4	662.0	664.6	687.7	711.1	6862.8
EAF (%)	96.0	100.0	100.0	70.1	0.0	55.4	99.6	99.5	98.0	100.0	100.0	100.0	84.8
UCF (%)	96.0	100.0	100.0	70.1	0.0	55.4	100.0	99.7	98.2	100.0	100.0	100.0	84.9
LF (%)	73.0	102.0	101.8	70.6	0.0	55.1	100.0	96.8	96.8	93.9	100.5	100.6	82.5
OF (%)	91.8	100.0	99.9	70.4	0.0	57.2	100.0	100.0	100.0	100.0	100.0	100.0	84.9
EUF (%)	4.0	0.0	0.0	29.9	100.0	44.6	0.4	0.5	2.0	0.0	0.0	0.0	15.2
PUF (%)	4.0	0.0	0.0	29.9	100.0	43.8	0.0	0.0	0.0	0.0	0.0	0.0	14.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.3	1.8	0.0	0.0	0.0	0.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.2	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: TRANSMISSION LINE LIMITATION=248GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION - 74%REPLACEMENT THE HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL - 47%

5. Historical Summary

Date of Construction Start: 01 Nov 1981 **Lifetime Generation:** 99350.0 GW(e).h
Date of First Criticality: 10 Dec 1987 **Cumulative Energy Availability Factor:** 71.2%
Date of Grid Connection: 31 Dec 1987 **Cumulative Load Factor:** 71.7%
Date of Commercial Operation: 13 Aug 1988 **Cumulative Unit Capability Factor:** 72.2%
Cumulative Energy Unavailability Factor: 28.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	2133.1	950.0	67.1	67.1	67.1	67.1	61.1	61.1	2753	75.0
1989	5872.3	950.0	70.7	69.6	70.6	69.6	70.6	67.8	6295	71.9
1990	6498.6	950.0	77.4	72.8	77.4	72.8	78.1	72.0	6870	78.4
1991	5172.5	950.0	61.2	69.4	61.2	69.4	62.2	69.1	5551	63.4
1992	6075.1	950.0	67.6	69.0	66.5	68.8	72.8	70.0	6167	70.2
1993	5487.7	950.0	65.2	68.3	65.2	68.1	65.9	69.2	5782	66.0
1994	6303.4	950.0	76.0	69.5	75.5	69.3	75.7	70.2	6775	77.3
1995	5700.3	950.0	68.0	69.3	68.0	69.1	68.5	70.0	6014	68.7
1996	4497.9	950.0	54.2	67.5	53.9	67.3	53.9	68.1	4854	55.3
1997	6152.1	950.0	72.8	68.1	72.6	67.8	73.9	68.7	6415	73.2
1998	5499.2	950.0	67.1	68.0	65.8	67.6	66.1	68.5	5904	67.4
1999	5526.7	950.0	66.8	67.9	66.4	67.5	66.4	68.3	6506	74.3
2000	5899.6	950.0	74.3	68.4	70.4	67.8	70.7	68.5	6541	74.5
2001	6167.3	950.0	76.5	69.0	73.6	68.2	73.9	68.9	6781	77.2
2002	6730.5	950.0	80.3	69.8	79.9	69.0	80.9	69.7	7049	80.5
2003	7137.7	950.0	85.4	70.8	84.9	70.0	85.8	70.8	7512	85.8
2004	6325.1	950.0	80.9	71.4	75.4	70.4	75.8	71.1	6935	79.0
2005	6862.8	950.0	84.9	72.2	84.8	71.2	82.5	71.7	7433	84.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					258	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	1266			1607		
D. Inspection, maintenance or repair without refuelling	44			254		
E. Testing of plant systems or components				20		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			17		1	10
Subtotal	1310	0	17	1881	265	10
Total	1327			2156		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		31
13. Reactor Auxiliary Systems		14
14. Safety Systems		1
15. Reactor Cooling Systems		28
16. Steam generation systems		1
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		16
35. All other I&C Systems		0
41. Main Generator Systems		125
42. Electrical Power Supply Systems		6
Total	0	253

UA-41 KHMELNITSKI-2

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 261.4 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 37.0%
Operating Factor: 39.8%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 448 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h												261.4	261.4
EAF (%)												100.0	100.0
UCF (%)												100.0	100.0
LF (%)												37.0	37.0
OF (%)												39.8	39.8
EUF (%)												0.0	0.0
PUF (%)												0.0	0.0
UCLF (%)												0.0	0.0
XUF (%)												0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Feb 1985
Date of First Criticality: 01 Aug 2004
Date of Grid Connection: 07 Aug 2004
Date of Commercial Operation: 15 Dec 2005

Lifetime Generation: 5583.1 GW(e).h
Cumulative Energy Availability Factor: 100.0%
Cumulative Load Factor: 37.0%
Cumulative Unit Capability Factor: 100.0%
Cumulative Energy Unavailability Factor: 0.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
2005	261.4	950.0	100.0	100.0	100.0	100.0	37.0	37.0	296	39.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			2005 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External

The reactor has not yet completed a full year of commercial operation.

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	2005 to 2005 Average Hours Lost Per Year

The reactor has not yet completed a full year of commercial operation.

UA-27 ROVNO-1

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 381.0 MW(e)
Design Net Capacity: 361.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2362.6 GW(e).h
Energy Availability Factor: 84.5%
Load Factor: 70.8%
Operating Factor: 88.5%
Energy Unavailability Factor: 15.5%
Total Off-line Time: 1007 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	202.8	250.5	290.4	81.5	46.2	268.0	260.3	178.7	127.5	205.7	191.4	259.5	2362.6
EAF (%)	99.1	93.9	98.0	32.0	16.6	96.2	92.5	96.2	95.4	97.9	99.4	97.3	84.5
UCF (%)	99.1	93.9	98.0	32.0	17.4	99.0	97.3	98.9	98.2	99.4	99.5	97.4	85.8
LF (%)	71.6	97.8	102.5	29.8	16.3	97.7	91.8	63.0	46.5	72.5	69.8	91.6	70.8
OF (%)	100.0	100.0	99.9	34.9	32.8	100.0	98.1	100.0	96.7	100.0	100.0	100.0	88.5
EUF (%)	0.9	6.1	2.0	68.0	83.4	3.8	7.5	3.8	4.6	2.1	0.6	2.7	15.5
PUF (%)	0.0	3.4	0.0	67.7	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
UCLF (%)	0.9	2.6	2.0	0.3	17.9	1.0	2.7	1.1	1.8	0.6	0.6	2.7	2.9
XUF (%)	0.0	0.0	0.0	0.0	0.8	2.8	4.8	2.7	2.7	1.5	0.0	0.0	1.3

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: THE GRID DISPATCHER'S REQUEST AND TRANSMISSION LINE LIMITATION=475GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: TG-2 MOISTURE REPLACEMENT TG-1 MOISTURE REPAIR

5. Historical Summary

Date of Construction Start:	01 Aug 1973	Lifetime Generation:	64538.0 GW(e).h
Date of First Criticality:	17 Dec 1980	Cumulative Energy Availability Factor:	80.7%
Date of Grid Connection:	31 Dec 1980	Cumulative Load Factor:	80.6%
Date of Commercial Operation:	21 Sep 1981	Cumulative Unit Capability Factor:	81.4%
		Cumulative Energy Unavailability Factor:	19.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	932.3	361.0	91.0	91.0	91.0	91.0	88.2	88.2	2924	99.9
1982	1725.2	361.0	51.9	61.7	51.9	61.7	54.6	63.0	5498	62.8
1983	2036.6	361.0	61.6	61.7	61.6	61.7	64.4	63.6	6752	77.1
1984	2686.3	361.0	82.5	67.9	82.5	67.9	84.7	69.9	7782	88.6
1985	2664.8	365.0	81.4	71.1	81.4	71.1	83.3	73.1	7636	87.2
1986	2712.7	361.0	77.5	72.3	77.5	72.3	85.8	75.4	7606	86.8
1987	3040.8	402.0	86.6	74.7	86.6	74.7	86.3	77.3	7756	88.5
1988	2718.0	361.0	86.0	76.3	86.0	76.3	85.7	78.4	7877	89.7
1989	2823.8	361.0	89.2	77.8	89.2	77.8	89.3	79.7	7994	91.3
1990	2590.6	361.0	79.3	77.9	79.3	77.9	81.9	80.0	7265	82.9
1991	2640.1	361.0	81.4	78.3	81.4	78.3	83.5	80.3	7430	84.8
1992	3082.9	402.0	88.5	79.3	87.3	79.1	87.0	80.9	7989	90.9
1993	2584.4	406.0	83.0	79.6	81.4	79.3	72.7	80.2	7159	81.7
1994	2578.6	361.0	81.7	79.7	81.7	79.5	81.5	80.3	7378	84.2
1995	2747.4	361.0	88.4	80.3	86.1	80.0	86.9	80.8	7756	88.5
1996	2432.0	361.0	79.0	80.2	76.7	79.8	76.7	80.5	6960	79.2
1997	2701.1	361.0	82.2	80.4	81.6	79.9	85.4	80.8	7867	89.8
1998	2612.9	361.0	78.1	80.2	77.8	79.7	82.6	80.9	6912	78.9
1999	2240.5	361.0	82.8	80.4	82.8	79.9	70.8	80.4	6214	70.9
2000	2733.7	361.0	85.7	80.6	82.6	80.1	86.2	80.7	7580	86.3
2001	2753.8	381.0	82.6	80.7	81.4	80.1	82.3	80.7	7369	83.9
2002	2656.2	381.0	81.0	80.8	79.9	80.1	79.6	80.7	7242	82.7
2003	2816.1	381.0	84.5	80.9	83.5	80.3	84.4	80.9	7560	86.3
2004	2876.6	381.0	87.9	81.2	86.5	80.5	86.0	81.1	7914	90.1
2005	2362.6	381.0	85.8	81.4	84.5	80.7	70.8	80.6	7753	88.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		118			50	
C. Inspection, maintenance or repair combined with refuelling	852			981		
D. Inspection, maintenance or repair without refuelling				137	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			23			
L. Human factor related		11			0	
Subtotal	852	129	23	1118	51	0
Total		1004			1169	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems	104	6
13. Reactor Auxiliary Systems		3
14. Safety Systems		0
15. Reactor Cooling Systems		16
16. Steam generation systems		9
32. Feedwater and Main Steam System		0
35. All other I&C Systems		0
41. Main Generator Systems		3
42. Electrical Power Supply Systems		6
Total	104	46

UA-28 ROVNO-2

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 376.0 MW(e)
Design Net Capacity: 384.0 MW(e)
Design Discharge Burnup: 28600 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2549.0 GW(e).h
Energy Availability Factor: 86.0%
Load Factor: 77.4%
Operating Factor: 85.9%
Energy Unavailability Factor: 14.0%
Total Off-line Time: 1233 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	259.8	267.8	289.1	220.3	227.4	211.8	0.0	143.1	203.5	200.2	239.3	286.8	2549.0
EAF (%)	99.2	99.2	99.0	98.3	97.4	75.5	0.0	73.0	96.7	97.4	99.1	98.8	86.0
UCF (%)	99.2	99.2	99.0	98.9	98.8	77.8	0.0	73.0	97.0	99.5	99.4	98.8	86.5
LF (%)	92.9	106.0	103.4	81.5	81.3	78.2	0.0	51.1	75.2	71.5	88.4	102.5	77.4
OF (%)	100.0	100.0	99.9	100.1	100.0	80.3	0.0	69.2	83.6	100.0	100.0	100.0	85.9
EUF (%)	0.8	0.8	1.0	1.7	2.6	24.5	100.0	27.0	3.3	2.6	0.9	1.2	14.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	20.7	100.0	26.3	2.1	0.0	0.0	0.0	12.6
UCLF (%)	0.8	0.8	1.0	1.1	1.2	1.4	0.0	0.7	0.9	0.5	0.6	1.2	0.9
XUF (%)	0.0	0.0	0.0	0.6	1.4	2.3	0.0	0.0	0.3	2.1	0.3	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: THE GRID DISPATCHER'S REQUEST AND TRANSMISSION LINE LIMITATION=345GW(E)H

5. Historical Summary

Date of Construction Start: 01 Oct 1973 **Lifetime Generation:** 63519.0 GW(e).h
Date of First Criticality: 19 Dec 1981 **Cumulative Energy Availability Factor:** 80.6%
Date of Grid Connection: 30 Dec 1981 **Cumulative Load Factor:** 79.8%
Date of Commercial Operation: 30 Jul 1982 **Cumulative Unit Capability Factor:** 81.8%
Cumulative Energy Unavailability Factor: 19.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	1397.2	384.0	90.8	90.8	90.8	90.8	82.4	82.4	4403	99.7
1983	1926.9	384.0	58.0	69.0	58.0	69.0	57.3	65.7	5572	63.6
1984	2808.2	384.0	83.1	74.6	83.1	74.6	83.3	72.7	7884	89.8
1985	2913.5	384.0	86.0	77.9	86.0	77.9	86.6	76.7	7994	91.3
1986	2891.8	384.0	83.0	79.0	83.0	79.0	86.0	78.7	7819	89.3
1987	3166.4	416.0	86.3	80.4	86.3	80.4	86.9	80.3	7649	87.3
1988	2778.3	384.0	85.8	81.2	85.8	81.2	82.4	80.6	7875	89.7
1989	2700.4	384.0	86.3	81.9	86.3	81.9	80.3	80.6	7989	91.2
1990	2799.0	384.0	83.1	82.0	83.1	82.0	83.2	80.9	7815	89.2
1991	2393.2	384.0	71.0	80.9	71.0	80.9	71.1	79.9	6560	74.9
1992	2983.7	416.0	83.8	81.2	82.9	81.1	81.7	80.1	7487	85.2
1993	2053.7	406.0	66.0	79.8	64.4	79.6	57.7	78.0	5981	68.3
1994	2690.7	384.0	83.1	80.1	83.1	79.9	80.0	78.2	7626	87.1
1995	2568.5	384.0	79.6	80.0	76.4	79.6	76.4	78.1	7215	82.4
1996	2783.1	384.0	87.8	80.6	82.5	79.8	82.5	78.4	7905	90.0
1997	2585.6	384.0	77.6	80.4	76.5	79.6	76.9	78.3	6847	78.2
1998	2739.6	384.0	83.2	80.5	81.2	79.7	81.4	78.5	7424	84.7
1999	2543.7	384.0	78.0	80.4	75.5	79.5	75.6	78.3	6958	79.4
2000	2718.2	384.0	84.0	80.6	80.3	79.5	80.6	78.4	7460	84.9
2001	2796.9	376.0	86.6	80.9	83.2	79.7	84.7	78.7	7691	87.6
2002	2861.8	376.0	86.5	81.2	85.7	80.0	86.9	79.1	7756	88.5
2003	2784.2	376.0	82.6	81.2	81.6	80.0	84.5	79.4	7376	84.2
2004	2999.7	376.0	89.4	81.6	88.4	80.4	90.8	79.9	8047	91.6
2005	2549.0	376.0	86.5	81.8	86.0	80.6	77.4	79.8	7527	85.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					154	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1078			893		
D. Inspection, maintenance or repair without refuelling				140		
E. Testing of plant systems or components				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			118	45		
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant , spare part delivery problems etc.)		36				
Subtotal	1078	36	118	1078	155	0
Total	1232			1233		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		19
13. Reactor Auxiliary Systems		2
15. Reactor Cooling Systems		6
16. Steam generation systems		96
17. Safety I&C Systems (excluding reactor I&C)		0
31. Turbine and auxiliaries		0
32. Feedwater and Main Steam System		17
41. Main Generator Systems		3
42. Electrical Power Supply Systems		7
Total	0	150

UA-29 ROVNO-3

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4768.1 GW(e).h
Energy Availability Factor: 68.3%
Load Factor: 57.3%
Operating Factor: 70.3%
Energy Unavailability Factor: 31.7%
Total Off-line Time: 2602 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	495.3	633.8	680.8	604.0	395.7	0.0	0.0	352.2	572.4	558.9	414.8	60.1	4768.1
EAF (%)	77.2	99.5	99.6	98.5	66.6	0.0	0.0	81.6	96.5	98.7	94.8	10.3	68.3
UCF (%)	77.2	99.6	99.7	99.3	67.2	0.0	0.0	83.6	98.7	99.6	98.9	16.0	69.7
LF (%)	70.1	99.3	96.3	88.4	56.0	0.0	0.0	49.8	83.7	79.0	60.7	8.5	57.3
OF (%)	78.0	100.0	99.9	100.1	67.3	0.0	0.0	85.6	100.0	100.0	100.0	16.1	70.3
EUf (%)	22.8	0.5	0.4	1.5	33.4	100.0	100.0	18.4	3.5	1.3	5.2	89.7	31.7
PUf (%)	22.5	0.0	0.0	0.0	19.4	100.0	100.0	14.8	0.9	0.0	0.0	83.9	28.7
UCLF (%)	0.3	0.5	0.4	0.7	13.4	0.0	0.0	1.6	0.5	0.4	1.1	0.2	1.6
XUF (%)	0.0	0.0	0.0	0.7	0.6	0.0	0.0	2.0	2.2	1.0	4.1	5.7	1.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: THE GRID DISPATCHER'S REQUEST AND TRANSMISSION LINE LIMITATION=768GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION - 56.3%REPLACEMENT THE HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL - 59%

5. Historical Summary

Date of Construction Start: 01 Feb 1980 **Lifetime Generation:** 108501.0 GW(e).h
Date of First Criticality: 11 Nov 1986 **Cumulative Energy Availability Factor:** 71.1%
Date of Grid Connection: 21 Dec 1986 **Cumulative Load Factor:** 69.2%
Date of Commercial Operation: 16 May 1987 **Cumulative Unit Capability Factor:** 73.0%
Cumulative Energy Unavailability Factor: 28.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	3961.1	1000.0	81.3	81.3	81.3	81.3	67.4	67.4	4474	76.1
1988	5661.3	950.0	71.1	75.3	71.1	75.3	67.8	67.6	6357	72.4
1989	6046.1	950.0	75.1	75.2	75.1	75.2	72.7	69.5	6771	77.3
1990	6360.1	950.0	77.3	75.8	77.3	75.8	76.4	71.4	6981	79.7
1991	5454.8	950.0	66.0	73.7	66.0	73.7	65.5	70.1	5971	68.2
1992	7084.9	1000.0	82.2	75.3	82.2	75.3	80.7	72.1	7323	83.4
1993	6195.1	950.0	76.5	75.5	75.9	75.4	74.4	72.4	6861	78.3
1994	5574.7	950.0	67.7	74.5	67.7	74.4	67.0	71.7	6042	69.0
1995	5018.3	950.0	61.0	72.9	60.3	72.8	60.3	70.4	5500	62.8
1996	5550.9	950.0	66.8	72.3	66.5	72.1	66.5	70.0	6064	69.0
1997	6249.6	950.0	75.9	72.6	74.7	72.4	75.1	70.5	6730	76.8
1998	5603.5	950.0	68.2	72.3	67.3	71.9	67.3	70.2	6036	68.9
1999	5303.5	950.0	72.6	72.3	63.7	71.3	63.7	69.7	6342	72.4
2000	4991.3	950.0	72.4	72.3	59.8	70.5	59.8	69.0	5641	64.2
2001	5783.6	950.0	75.3	72.5	69.6	70.4	69.3	69.0	6387	72.7
2002	5562.6	950.0	69.8	72.3	68.4	70.3	66.8	68.9	6320	72.1
2003	6250.5	950.0	75.2	72.5	74.3	70.5	75.1	69.2	6815	77.8
2004	6693.3	950.0	84.2	73.1	83.2	71.2	80.2	69.9	7321	83.3
2005	4768.1	950.0	69.7	73.0	68.3	71.1	57.3	69.2	6158	70.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure	1716	99			276	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	623			1622		
D. Inspection, maintenance or repair without refuelling	163			119		
E. Testing of plant systems or components				29		
G. Major back-fitting, refurbishment or upgrading activities without refuelling						10
J. Grid failure or grid unavailability						20
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					3	39
Subtotal	2502	99	0	1770	289	69
Total	2601			2128		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		31
13. Reactor Auxiliary Systems		15
15. Reactor Cooling Systems		1
16. Steam generation systems		33
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		31
32. Feedwater and Main Steam System		4
33. Circulating Water System		1
35. All other I&C Systems		0
41. Main Generator Systems	1814	112
42. Electrical Power Supply Systems	0	39
Total	1814	270

UA-44 SOUTH UKRAINE-1

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAA (PRODUCTION AMALGAMATION 'ATOMMASH', VOLGODONSK)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6068.5 GW(e).h
Energy Availability Factor: 77.1%
Load Factor: 72.9%
Operating Factor: 79.1%
Energy Unavailability Factor: 22.9%
Total Off-line Time: 1834 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	699.5	647.5	708.0	680.9	659.8	248.2	552.6	266.3	0.0	539.8	668.4	397.4	6068.5
EAF (%)	99.9	99.9	99.9	99.8	98.6	47.0	97.0	38.8	0.0	84.5	98.7	61.0	77.1
UCF (%)	99.9	99.9	99.9	99.8	99.6	56.3	98.1	41.2	0.0	84.5	99.1	61.2	78.3
LF (%)	99.0	101.4	100.2	99.7	93.3	36.3	78.2	37.7	0.0	76.3	97.7	56.2	72.9
OF (%)	100.0	100.0	99.9	100.1	100.0	57.1	100.0	42.2	0.0	87.5	100.0	62.1	79.1
EUf (%)	0.1	0.1	0.1	0.2	1.4	53.0	3.0	61.2	100.0	15.5	1.3	39.0	22.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	43.3	1.4	57.9	100.0	13.2	0.0	16.6	19.3
UCLF (%)	0.1	0.1	0.1	0.2	0.4	0.4	0.5	1.0	0.0	2.3	0.9	22.2	2.4
XUF (%)	0.0	0.0	0.0	0.0	1.0	9.3	1.1	2.4	0.0	0.0	0.4	0.2	1.2

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: HIGH TEMPERATURE OF COOLING WATER=184GW(E)H, THE GRID DISPATCHER'S REQUEST =321GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: REPLACEMENT THE 70 % HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL.

5. Historical Summary

Date of Construction Start: 01 Mar 1977 **Lifetime Generation:** 118281.0 GW(e).h
Date of First Criticality: 09 Dec 1982 **Cumulative Energy Availability Factor:** 65.7%
Date of Grid Connection: 31 Dec 1982 **Cumulative Load Factor:** 66.6%
Date of Commercial Operation: 18 Oct 1983 **Cumulative Unit Capability Factor:** 66.4%
Cumulative Energy Unavailability Factor: 34.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	1582.5	950.0	75.6	75.6	75.6	75.6	75.4	75.4	1746	79.1
1984	6075.1	950.0	71.7	72.4	71.7	72.4	72.8	73.3	6364	72.4
1985	6939.1	950.0	81.4	76.4	81.1	76.3	83.4	77.8	7148	81.6
1986	6176.1	950.0	74.1	75.7	73.5	75.4	74.2	76.7	6735	76.9
1987	6385.9	1000.0	75.6	75.7	75.6	75.5	72.9	75.8	6642	75.8
1988	5467.5	950.0	65.9	73.8	65.9	73.7	65.5	73.8	6177	70.3
1989	2501.6	950.0	30.8	67.0	30.8	66.9	30.1	66.9	3321	37.9
1990	6174.4	950.0	75.2	68.1	75.0	68.0	74.2	67.9	7063	80.6
1991	3865.9	950.0	46.5	65.5	46.5	65.4	46.4	65.3	5532	63.1
1992	4946.8	1000.0	49.2	64.0	49.1	63.8	67.6	65.5	6142	69.9
1993	5277.8	950.0	62.3	63.8	61.4	63.6	63.4	65.3	5650	64.5
1994	5117.4	950.0	58.7	63.3	58.7	63.1	61.5	65.0	5667	64.7
1995	5438.6	950.0	66.1	63.6	65.4	63.3	65.4	65.0	6212	70.9
1996	5138.2	950.0	62.1	63.5	61.6	63.2	61.6	64.7	5549	63.2
1997	6196.1	950.0	73.0	64.1	72.5	63.8	74.5	65.4	6416	73.2
1998	6164.9	950.0	73.7	64.8	73.1	64.5	74.1	66.0	6477	73.9
1999	5558.9	950.0	67.1	64.9	66.5	64.6	66.8	66.1	5920	67.6
2000	5203.0	950.0	63.9	64.9	61.2	64.4	62.4	65.8	5677	64.6
2001	5563.7	950.0	68.3	65.0	66.6	64.5	66.7	65.9	6015	68.5
2002	4254.8	950.0	52.2	64.4	50.9	63.8	51.1	65.1	4625	52.8
2003	6008.2	950.0	74.2	64.9	72.6	64.2	72.2	65.5	6612	75.5
2004	6988.9	950.0	85.0	65.8	84.0	65.2	83.8	66.3	7592	86.4
2005	6068.5	950.0	78.3	66.4	77.1	65.7	72.9	66.6	6926	79.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		160			434	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1243			1372		
D. Inspection, maintenance or repair without refuelling	431			351		
E. Testing of plant systems or components				11	0	
J. Grid failure or grid unavailability					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					39	0
Z. Others					1	
Subtotal	1674	160	0	1734	477	0
Total		1834			2211	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		13
14. Safety Systems		1
15. Reactor Cooling Systems		5
16. Steam generation systems		215
31. Turbine and auxiliaries		59
32. Feedwater and Main Steam System		11
33. Circulating Water System		1
35. All other I&C Systems		1
41. Main Generator Systems	160	121
42. Electrical Power Supply Systems		2
XX. Miscellaneous Systems		1
Total	160	430

UA-45 SOUTH UKRAINE-2

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAA (PRODUCTION AMALGAMATION 'ATOMMASH', VOLGODONSK)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6479.2 GW(e).h
Energy Availability Factor: 81.1%
Load Factor: 77.9%
Operating Factor: 82.7%
Energy Unavailability Factor: 18.9%
Total Off-line Time: 1517 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	699.5	640.1	698.6	198.7	0.0	453.7	513.7	533.5	642.9	700.4	694.0	704.1	6479.2
EAF (%)	99.6	98.3	98.9	29.8	0.0	73.2	91.0	87.0	96.6	99.4	100.0	99.9	81.1
UCF (%)	99.6	98.3	98.9	29.9	0.0	80.2	91.0	91.0	96.7	99.4	100.0	99.9	82.0
LF (%)	99.0	100.3	98.8	29.1	0.0	66.3	72.7	75.5	94.0	99.0	101.5	99.6	77.9
OF (%)	100.0	100.0	99.9	30.3	0.0	82.1	91.9	91.4	97.5	100.0	100.0	100.0	82.7
EUF (%)	0.4	1.7	1.1	70.2	100.0	26.8	9.0	13.0	3.4	0.6	0.0	0.1	18.9
PUF (%)	0.0	0.0	0.0	69.9	100.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6
UCLF (%)	0.4	1.7	1.1	0.2	0.0	2.8	9.0	9.0	3.3	0.6	0.0	0.1	2.4
XUF (%)	0.0	0.0	0.0	0.1	0.0	7.0	0.0	4.0	0.1	0.0	0.0	0.0	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: HIGH TEMPERATURE OF COOLING WATER=225GW(E)H, THE GRID DISPATCHER'S REQUEST =260GW(E)H. MAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: REPLACEMENT THE 70 % HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL.

5. Historical Summary

Date of Construction Start: 01 Oct 1979
Date of First Criticality: 30 Dec 1984
Date of Grid Connection: 06 Jan 1985
Date of Commercial Operation: 06 Apr 1985

Lifetime Generation: 102798.0 GW(e).h
Cumulative Energy Availability Factor: 61.2%
Cumulative Load Factor: 61.2%
Cumulative Unit Capability Factor: 62.2%
Cumulative Energy Unavailability Factor: 38.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	4666.7	950.0	73.3	73.3	73.3	73.3	74.4	74.4	4924	74.6
1986	5565.5	950.0	67.0	69.7	66.2	69.3	66.9	70.1	6315	72.1
1987	1641.7	1000.0	22.0	51.8	22.0	51.6	18.7	50.8	1941	22.2
1988	4850.6	950.0	57.4	53.3	57.4	53.1	58.1	52.8	5198	59.2
1989	4437.3	950.0	54.3	53.5	54.3	53.3	53.3	52.9	6674	76.2
1990	1769.0	950.0	21.9	48.1	21.9	47.9	21.3	47.4	4522	51.6
1991	6209.8	950.0	72.0	51.6	72.0	51.5	74.6	51.4	6722	76.7
1992	6412.1	1000.0	72.9	54.4	71.7	54.2	73.0	54.3	6574	74.8
1993	5204.0	950.0	64.0	55.5	61.7	55.0	62.5	55.2	6570	75.0
1994	3958.5	950.0	47.3	54.7	46.9	54.2	47.6	54.5	6471	73.9
1995	5429.4	950.0	66.1	55.7	65.2	55.2	65.2	55.5	6514	74.4
1996	4593.7	950.0	55.4	55.7	55.0	55.2	55.0	55.4	5590	63.6
1997	6326.5	950.0	77.2	57.4	75.4	56.8	76.0	57.0	7400	84.5
1998	4542.4	950.0	55.1	57.2	54.0	56.6	54.6	56.9	4867	55.6
1999	5537.9	950.0	72.0	58.2	66.4	57.2	66.5	57.5	6372	72.7
2000	4103.5	950.0	50.0	57.7	49.2	56.7	49.2	57.0	4486	51.1
2001	6206.5	950.0	74.8	58.7	74.4	57.8	74.4	58.0	6869	78.2
2002	6057.2	950.0	74.2	59.6	72.7	58.6	72.8	58.8	6565	74.9
2003	5507.7	950.0	66.2	59.9	65.8	59.0	66.2	59.2	5868	67.0
2004	6899.7	950.0	86.1	61.2	82.2	60.2	82.7	60.4	7647	87.1
2005	6479.2	950.0	82.0	62.2	81.1	61.2	77.9	61.2	7243	82.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		133			564	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1366			1333		
D. Inspection, maintenance or repair without refuelling				509	5	
E. Testing of plant systems or components				13		
H. Nuclear regulatory requirements					1	5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					73	
L. Human factor related		18			0	
Subtotal	1366	151	0	1855	643	5
Total		1517			2503	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		11
15. Reactor Cooling Systems		21
16. Steam generation systems		453
17. Safety I&C Systems (excluding reactor I&C)		12
31. Turbine and auxiliaries	124	20
32. Feedwater and Main Steam System		41
41. Main Generator Systems		2
42. Electrical Power Supply Systems	8	0
Total	132	560

UA-48 SOUTH UKRAINE-3

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAA (PRODUCTION AMALGAMATION 'ATOMMASH', VOLGODONSK)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6801.0 GW(e).h
Energy Availability Factor: 85.0%
Load Factor: 81.7%
Operating Factor: 86.2%
Energy Unavailability Factor: 15.0%
Total Off-line Time: 1212 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	712.3	643.9	664.1	600.3	668.2	444.9	0.0	407.1	594.1	690.5	673.0	702.7	6801.0
EAF (%)	100.0	99.9	99.7	99.7	99.5	66.6	0.0	60.0	97.8	99.5	99.6	99.7	85.0
UCF (%)	100.0	100.0	99.7	99.7	99.5	68.5	0.0	65.5	99.2	99.5	99.6	99.7	85.7
LF (%)	100.8	100.9	94.0	87.9	94.5	65.0	0.0	57.6	86.9	97.6	98.4	99.4	81.7
OF (%)	100.0	100.0	99.9	100.1	100.0	69.3	0.0	66.8	100.0	100.0	100.0	100.0	86.2
EUF (%)	0.0	0.1	0.3	0.3	0.5	33.4	100.0	40.0	2.2	0.5	0.4	0.3	15.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	31.0	100.0	33.3	0.0	0.0	0.0	0.0	13.9
UCLF (%)	0.0	0.1	0.3	0.3	0.5	0.5	0.0	1.2	0.8	0.5	0.4	0.3	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	1.9	0.0	5.5	1.4	0.0	0.0	0.0	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: HIGH TEMPERATURE OF COOLING WATER=150GW(E)H, THE GRID DISPATCHER'S REQUEST =250GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: REPLACEMENT THE 56 % HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL.REPLACEMENT OF THE BACKUP CONTROL ROOM AUTOMATED MONITORING OF NEUTRON FLUX

5. Historical Summary

Date of Construction Start: 01 Feb 1985 **Lifetime Generation:** 91350.0 GW(e).h
Date of First Criticality: 01 Sep 1989 **Cumulative Energy Availability Factor:** 72.5%
Date of Grid Connection: 20 Sep 1989 **Cumulative Load Factor:** 72.0%
Date of Commercial Operation: 29 Dec 1989 **Cumulative Unit Capability Factor:** 73.8%
Cumulative Energy Unavailability Factor: 27.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	501.9	950.0	100.0	100.0	100.0	100.0	71.0	71.0	563	75.7
1990	5691.6	950.0	69.4	71.8	69.4	71.8	68.4	68.6	6408	73.2
1991	5762.8	950.0	70.4	71.1	70.0	70.9	69.2	68.9	6996	79.9
1992	6458.1	1000.0	75.2	72.5	75.2	72.4	73.5	70.5	6646	75.7
1993	6043.4	950.0	72.8	72.6	71.7	72.2	72.6	71.0	6527	74.5
1994	5565.0	950.0	66.5	71.4	66.4	71.1	66.9	70.2	6223	71.0
1995	4954.8	950.0	60.2	69.6	59.5	69.2	59.5	68.4	6300	71.9
1996	6155.0	950.0	76.4	70.5	73.8	69.8	73.8	69.2	7463	85.0
1997	6514.8	950.0	79.7	71.7	77.7	70.8	78.3	70.3	7079	80.8
1998	5851.0	950.0	71.0	71.6	69.9	70.7	70.3	70.3	6396	73.0
1999	5464.3	950.0	67.2	71.1	65.5	70.2	65.7	69.9	6244	71.3
2000	5909.7	950.0	73.3	71.3	70.6	70.2	70.8	69.9	6588	75.0
2001	6136.3	950.0	76.3	71.8	73.7	70.5	73.5	70.2	6985	79.5
2002	6335.2	950.0	77.5	72.2	76.0	70.9	76.1	70.7	7043	80.4
2003	6036.5	950.0	74.3	72.3	73.1	71.1	72.5	70.8	6680	76.3
2004	6625.1	950.0	82.0	73.0	79.9	71.7	79.4	71.4	7246	82.5
2005	6801.0	950.0	85.7	73.8	85.0	72.5	81.7	72.0	7548	86.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					151	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	1212			1493		
D. Inspection, maintenance or repair without refuelling				241		
E. Testing of plant systems or components				24		
Subtotal	1212	0	0	1758	151	0
Total	1212			1909		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		4
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		0
15. Reactor Cooling Systems		3
16. Steam generation systems		5
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		29
32. Feedwater and Main Steam System		1
33. Circulating Water System		0
35. All other I&C Systems		1
41. Main Generator Systems		89
42. Electrical Power Supply Systems		2
Total	0	142

UA-54 ZAPOROZHE-1

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6018.8 GW(e).h
Energy Availability Factor: 76.8%
Load Factor: 72.3%
Operating Factor: 77.9%
Energy Unavailability Factor: 23.2%
Total Off-line Time: 1937 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	483.9	639.8	706.0	369.7	0.0	157.3	615.3	566.0	438.4	675.1	662.2	705.1	6018.8
EAF (%)	68.6	99.7	99.7	54.5	0.0	27.1	96.0	95.7	85.3	98.6	99.5	98.1	76.8
UCF (%)	68.6	99.7	99.7	55.1	0.0	28.1	99.4	99.1	87.2	99.4	99.5	98.1	77.8
LF (%)	68.5	100.2	99.9	54.1	0.0	23.0	87.1	80.1	64.1	95.4	96.8	99.8	72.3
OF (%)	69.6	100.0	99.9	56.7	0.0	28.9	100.0	100.0	80.1	100.0	100.0	100.0	77.9
EUF (%)	31.4	0.3	0.3	45.5	100.0	72.9	4.0	4.3	14.7	1.4	0.5	1.9	23.2
PUF (%)	31.2	0.0	0.0	44.6	100.0	69.1	0.0	0.0	0.0	0.0	0.0	0.0	20.5
UCLF (%)	0.2	0.3	0.3	0.2	0.0	2.8	0.6	0.9	12.8	0.6	0.5	1.9	1.8
XUF (%)	0.0	0.0	0.0	0.7	0.0	1.0	3.4	3.4	2.0	0.8	0.0	0.0	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: HIGH TEMPERATURE OF COOLING WATER=121GW(E)H, THE GRID DISPATCHER'S REQUEST =361 GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION REPLACEMENT THE HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL USING THE SG MECHANICAL TUBE PLUGSREPLACEMENT OF THE AUTOMATED MONITORING OF NEUTRON FLUX

5. Historical Summary

Date of Construction Start: 01 Apr 1980 **Lifetime Generation:** 99593.0 GW(e).h
Date of First Criticality: 07 Dec 1984 **Cumulative Energy Availability Factor:** 60.6%
Date of Grid Connection: 10 Dec 1984 **Cumulative Load Factor:** 60.2%
Date of Commercial Operation: 25 Dec 1985 **Cumulative Unit Capability Factor:** 63.1%
Cumulative Energy Unavailability Factor: 39.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	495.0	950.0	70.8	70.8	70.8	70.8	70.0	70.0	594	79.8
1986	4826.3	950.0	61.5	62.3	58.3	59.2	58.0	58.9	5580	63.7
1987	6720.9	1000.0	80.8	71.4	80.8	69.9	76.7	67.7	7205	82.2
1988	5170.4	950.0	67.4	70.1	67.2	69.0	62.0	65.9	6225	70.9
1989	0.0	950.0	0.0	53.2	0.0	52.3	0.0	50.0	0	0.0
1990	4668.7	950.0	58.8	54.3	56.4	53.1	56.1	51.2	5684	64.9
1991	5332.2	950.0	68.5	56.6	64.2	54.9	64.1	53.3	6343	72.4
1992	6103.5	950.0	70.3	58.5	67.8	56.8	73.1	56.0	6739	76.7
1993	4209.7	950.0	53.5	57.9	52.1	56.2	50.6	55.4	6591	75.2
1994	3771.0	950.0	45.5	56.5	45.5	55.0	45.3	54.3	5062	57.8
1995	3557.3	950.0	44.9	55.4	42.7	53.8	42.7	53.1	4213	48.1
1996	4299.5	950.0	53.5	55.2	51.5	53.6	51.5	53.0	5224	59.5
1997	4070.6	950.0	53.9	55.1	48.9	53.2	48.9	52.7	5531	63.1
1998	5517.5	950.0	68.7	56.1	66.3	54.2	66.3	53.7	6122	69.9
1999	5992.5	950.0	84.0	58.1	72.0	55.5	72.0	55.0	7422	84.7
2000	4222.7	950.0	52.0	57.7	50.3	55.1	50.6	54.7	4589	52.2
2001	5847.1	950.0	71.8	58.6	69.9	56.0	70.1	55.7	6434	73.2
2002	6735.0	950.0	83.2	60.0	80.6	57.5	80.9	57.1	7334	83.7
2003	6596.4	950.0	81.9	61.2	79.0	58.7	79.3	58.3	7223	82.5
2004	6748.3	950.0	82.6	62.3	80.6	59.8	80.9	59.5	7290	83.0
2005	6018.8	950.0	77.8	63.1	76.8	60.6	72.3	60.2	6823	77.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		160		376	349	4
B. Refuelling without a maintenance					12	
C. Inspection, maintenance or repair combined with refuelling	1551			1525	37	
D. Inspection, maintenance or repair without refuelling	226			380	12	
E. Testing of plant systems or components				7		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					4	5
Subtotal	1777	160	0	2288	414	9
Total		1937			2711	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		53
15. Reactor Cooling Systems		37
16. Steam generation systems	143	462
17. Safety I&C Systems (excluding reactor I&C)		9
31. Turbine and auxiliaries	17	58
32. Feedwater and Main Steam System		42
33. Circulating Water System		4
35. All other I&C Systems		0
41. Main Generator Systems		40
42. Electrical Power Supply Systems		16
XX. Miscellaneous Systems		1
Total	160	722

UA-56 ZAPOROZHE-2

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6303.2 GW(e).h
Energy Availability Factor: 82.4%
Load Factor: 75.7%
Operating Factor: 83.7%
Energy Unavailability Factor: 17.6%
Total Off-line Time: 1428 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	712.8	645.4	704.0	681.4	687.3	95.1	0.0	542.2	564.4	672.9	574.6	423.0	6303.2
EAF (%)	99.7	99.7	98.9	99.7	97.3	14.8	0.0	85.1	97.5	98.6	99.2	99.6	82.4
UCF (%)	99.7	99.7	98.9	99.8	99.6	16.3	0.0	88.4	99.7	99.8	99.8	99.8	83.4
LF (%)	100.9	101.1	99.6	99.8	97.2	13.9	0.0	76.7	82.5	95.1	84.0	59.9	75.7
OF (%)	100.0	100.0	98.9	100.1	100.0	16.9	0.0	89.4	100.0	100.0	100.0	100.0	83.7
EUF (%)	0.3	0.3	1.1	0.3	2.7	85.2	100.0	14.9	2.5	1.4	0.8	0.4	17.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	83.7	100.0	11.3	0.0	0.0	0.0	0.0	16.3
UCLF (%)	0.3	0.3	1.1	0.2	0.4	0.1	0.0	0.3	0.3	0.2	0.2	0.2	0.3
XUF (%)	0.0	0.0	0.0	0.2	2.3	1.5	0.0	3.3	2.2	1.2	0.6	0.2	1.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: TRANSMISSION LINE LIMITATION=196 GW(E)H THE GRID DISPATCHER'S REQUEST =353 GW(E)H MAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION REPLACEMENT THE HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL USING THE SG MECHANICAL TUBE PLUGS

5. Historical Summary

Date of Construction Start: 01 Jan 1981 **Lifetime Generation:** 102999.0 GW(e).h
Date of First Criticality: 28 Jun 1985 **Cumulative Energy Availability Factor:** 65.6%
Date of Grid Connection: 22 Jul 1985 **Cumulative Load Factor:** 64.0%
Date of Commercial Operation: 15 Feb 1986 **Cumulative Unit Capability Factor:** 67.4%
Cumulative Energy Unavailability Factor: 34.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	5112.9	950.0	70.9	70.9	68.4	68.4	67.1	67.1	5764	71.9
1987	6058.3	1000.0	76.0	73.6	76.0	72.5	69.2	68.2	6675	76.2
1988	6088.6	950.0	81.2	76.2	81.2	75.4	73.0	69.8	7253	82.6
1989	3050.9	950.0	45.1	68.4	45.1	67.8	36.7	61.5	3393	38.7
1990	1869.1	950.0	22.6	59.1	22.3	58.6	22.5	53.6	2165	24.7
1991	4583.9	950.0	56.1	58.6	55.4	58.1	55.1	53.9	5112	58.4
1992	6551.7	950.0	77.7	61.4	76.2	60.7	78.5	57.4	7016	79.9
1993	4386.1	950.0	56.6	60.8	53.8	59.8	52.7	56.8	6194	70.7
1994	4103.5	950.0	49.9	59.6	49.8	58.7	49.3	56.0	5924	67.6
1995	5051.8	950.0	63.5	60.0	60.7	58.9	60.7	56.5	7329	83.7
1996	5373.0	950.0	67.5	60.6	64.4	59.4	64.4	57.2	6247	71.1
1997	6081.7	950.0	76.5	62.0	73.0	60.6	73.1	58.5	6745	77.0
1998	4922.8	950.0	62.9	62.0	59.0	60.4	59.2	58.6	5601	63.9
1999	5476.0	950.0	66.9	62.4	65.7	60.8	65.8	59.1	5887	67.2
2000	5626.4	950.0	70.7	63.0	67.4	61.3	67.4	59.6	6281	71.5
2001	5867.6	950.0	72.5	63.6	70.6	61.8	70.3	60.3	6422	73.1
2002	6315.6	950.0	78.8	64.5	75.9	62.7	75.9	61.2	6834	78.0
2003	6742.4	950.0	83.8	65.5	80.9	63.7	81.0	62.3	7387	84.3
2004	6944.3	950.0	86.0	66.6	83.1	64.7	83.2	63.4	7531	85.7
2005	6303.2	950.0	83.4	67.4	82.4	65.6	75.7	64.0	7332	83.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					456	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	1421			1433		
D. Inspection, maintenance or repair without refuelling				571		
E. Testing of plant systems or components				6		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	16
L. Human factor related		7				
Subtotal	1421	7	0	2010	462	16
Total	1428			2488		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		13
13. Reactor Auxiliary Systems		0
15. Reactor Cooling Systems		10
16. Steam generation systems		277
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		42
32. Feedwater and Main Steam System		9
35. All other I&C Systems		9
41. Main Generator Systems		75
42. Electrical Power Supply Systems		4
Total	0	440

UA-78 ZAPOROZHE-3

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6224.1 GW(e).h
Energy Availability Factor: 83.5%
Load Factor: 74.8%
Operating Factor: 82.5%
Energy Unavailability Factor: 16.5%
Total Off-line Time: 1531 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	706.1	639.8	689.3	338.8	673.5	632.4	551.9	629.6	656.9	69.8	36.9	599.0	6224.1
EAF (%)	99.2	99.3	99.2	99.3	97.4	97.1	95.8	94.2	97.1	15.4	10.2	99.0	83.5
UCF (%)	99.2	99.3	99.2	99.4	98.5	98.0	98.3	98.1	98.1	15.7	10.3	99.0	84.4
LF (%)	99.9	100.2	97.5	49.6	95.3	92.5	78.1	89.1	96.0	9.9	5.4	84.8	74.8
OF (%)	100.0	100.0	99.9	62.0	100.0	100.0	100.0	100.0	100.0	16.1	12.2	100.0	82.5
EUf (%)	0.8	0.7	0.8	0.7	2.6	2.9	4.2	5.8	2.9	84.6	89.8	1.0	16.5
PUf (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.0	89.6	0.0	14.5
UCLF (%)	0.8	0.7	0.8	0.6	1.5	2.0	1.7	1.9	1.9	0.3	0.1	1.0	1.1
XUF (%)	0.0	0.0	0.0	0.0	1.1	1.0	2.5	3.9	1.0	0.3	0.1	0.0	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: TRANSMISSION LINE LIMITATION=126 GW(E)H THE GRID DISPATCHER'S REQUEST =539 GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION -41,7%REPLACEMENT THE HPFW-6B (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL USING THE SG MECHANICAL TUBE PLUGSREPLACEMENT OF THE BACKUP CONTROL ROOM AUTOMATED MONITORING OF NEUTRON FLUX

5. Historical Summary

Date of Construction Start: 01 Apr 1982 **Lifetime Generation:** 100197.0 GW(e).h
Date of First Criticality: 04 Dec 1986 **Cumulative Energy Availability Factor:** 67.9%
Date of Grid Connection: 10 Dec 1986 **Cumulative Load Factor:** 66.9%
Date of Commercial Operation: 05 Mar 1987 **Cumulative Unit Capability Factor:** 71.0%
Cumulative Energy Unavailability Factor: 32.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	5757.0	1000.0	80.3	80.3	80.3	80.3	78.4	78.4	5886	80.1
1988	6414.3	950.0	81.3	80.9	81.3	80.9	76.9	77.6	7077	80.6
1989	6614.4	950.0	80.9	80.9	80.9	80.9	79.5	78.2	7373	84.2
1990	5625.3	950.0	68.1	77.6	67.7	77.5	67.6	75.5	6166	70.4
1991	4958.8	950.0	61.1	74.2	59.9	73.9	59.6	72.2	5877	67.1
1992	4140.9	950.0	54.0	70.8	50.5	69.9	49.6	68.4	5274	60.0
1993	5416.6	950.0	67.6	70.3	66.0	69.3	65.1	67.9	7263	82.9
1994	4273.7	950.0	52.5	68.0	52.5	67.2	51.4	65.8	6068	69.3
1995	4027.8	950.0	49.7	66.0	48.4	65.1	48.4	63.9	5804	66.3
1996	4940.2	950.0	62.3	65.6	59.2	64.5	59.2	63.4	6096	69.4
1997	4869.8	950.0	70.1	66.0	58.5	63.9	58.5	62.9	6544	74.7
1998	4953.2	950.0	63.1	65.8	59.5	63.6	59.5	62.6	6316	72.1
1999	5114.5	950.0	64.7	65.7	61.5	63.4	61.5	62.6	6162	70.3
2000	6123.2	950.0	76.6	66.5	73.0	64.1	73.4	63.3	6875	78.3
2001	6307.8	950.0	80.9	67.5	75.7	64.9	75.6	64.2	7027	80.0
2002	6602.0	950.0	84.4	68.5	79.2	65.8	79.3	65.1	7470	85.3
2003	6588.9	950.0	81.9	69.3	79.0	66.6	79.2	65.9	7236	82.6
2004	6308.7	950.0	85.4	70.2	75.5	67.1	75.6	66.5	7371	83.9
2005	6224.1	950.0	84.4	71.0	83.5	67.9	74.8	66.9	7229	82.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					105	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	1256			1473		
D. Inspection, maintenance or repair without refuelling				256		
E. Testing of plant systems or components				24	3	
J. Grid failure or grid unavailability						13
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			275	2	5	
R. External restrictions on supply and services (lack of funds due to delayed payments from customers, disputes in fuel industries, fuel-rationing, labour strike outside the plant , spare part delivery problems etc.)						13
Subtotal	1256	0	275	1755	122	26
Total		1531			1903	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		4
14. Safety Systems		6
15. Reactor Cooling Systems		0
16. Steam generation systems		16
31. Turbine and auxiliaries		5
32. Feedwater and Main Steam System		15
33. Circulating Water System		1
35. All other I&C Systems		1
41. Main Generator Systems		34
42. Electrical Power Supply Systems		5
XX. Miscellaneous Systems		0
Total	0	90

UA-79 ZAPOROZHE-4

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK, RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6511.9 GW(e).h
Energy Availability Factor: 84.1%
Load Factor: 78.2%
Operating Factor: 85.6%
Energy Unavailability Factor: 15.9%
Total Off-line Time: 1262 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	196.2	696.2	674.0	687.3	650.2	590.5	656.9	569.2	660.0	635.6	495.8	6511.9
EAF (%)	0.0	31.4	100.0	99.8	98.3	97.3	97.5	97.0	91.1	99.3	99.8	94.1	84.1
UCF (%)	0.0	31.5	100.0	100.0	99.6	99.9	99.7	99.6	93.4	99.9	99.8	94.6	85.1
LF (%)	0.0	30.7	98.5	98.7	97.2	95.1	83.5	92.9	83.2	93.3	92.9	70.1	78.2
OF (%)	0.0	32.9	99.9	100.1	100.0	100.0	100.0	100.0	94.0	100.0	100.0	96.8	85.6
EUF (%)	100.0	68.6	0.0	0.2	1.7	2.7	2.5	3.0	8.9	0.7	0.2	5.9	15.9
PUF (%)	100.0	68.5	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	3.5	14.6
UCLF (%)	0.0	0.0	0.0	0.0	0.4	0.1	0.3	0.4	0.3	0.1	0.2	1.8	0.3
XUF (%)	0.0	0.1	0.0	0.2	1.2	2.6	2.2	2.6	2.3	0.6	0.0	0.5	1.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: TRANSMISSION LINE LIMITATION=143 GW(E)H THE GRID DISPATCHER'S REQUEST =303 GW(E)H MAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION REPLACEMENT THE HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL USING THE SG MECHANICAL TUBE PLUGS REPLACEMENT OF THE BACKUP CONTROL ROOM AUTOMATED MONITORING OF NEUTRON FLUX

5. Historical Summary

Date of Construction Start: 01 Apr 1983 **Lifetime Generation:** 100788.0 GW(e).h
Date of First Criticality: 15 Dec 1987 **Cumulative Energy Availability Factor:** 71.8%
Date of Grid Connection: 18 Dec 1987 **Cumulative Load Factor:** 71.3%
Date of Commercial Operation: 14 Apr 1988 **Cumulative Unit Capability Factor:** 74.6%
Cumulative Energy Unavailability Factor: 28.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	4798.9	950.0	79.1	79.1	79.1	79.1	76.5	76.5	5278	80.0
1989	5828.1	950.0	73.1	75.7	73.1	75.7	70.0	72.8	6613	75.5
1990	6637.3	950.0	79.8	77.2	78.9	76.8	79.8	75.3	7393	84.4
1991	4259.5	950.0	51.3	70.3	51.1	70.0	51.2	68.9	5114	58.4
1992	6962.3	1000.0	78.8	72.1	78.6	71.8	79.3	71.2	6961	79.2
1993	6118.8	950.0	74.1	72.5	73.4	72.1	73.5	71.6	6821	77.9
1994	5888.7	950.0	71.4	72.3	71.3	72.0	70.8	71.5	6718	76.7
1995	4717.1	950.0	58.4	70.5	56.7	70.0	56.7	69.6	5902	67.4
1996	5372.2	950.0	66.3	70.0	64.4	69.4	64.4	69.0	6372	72.5
1997	6284.4	950.0	79.9	71.1	75.5	70.0	75.5	69.6	7060	80.6
1998	6022.0	950.0	74.0	71.3	72.4	70.2	72.4	69.9	6839	78.1
1999	3921.3	950.0	49.8	69.5	47.1	68.3	47.1	68.0	4630	52.9
2000	6708.4	950.0	83.8	70.6	80.3	69.2	80.4	68.9	7423	84.5
2001	6091.2	950.0	89.8	72.0	73.1	69.5	73.0	69.2	7884	89.8
2002	6337.1	950.0	78.5	72.5	76.1	69.9	76.1	69.7	6895	78.7
2003	6736.3	950.0	82.4	73.1	80.9	70.6	80.9	70.4	7248	82.7
2004	6537.6	950.0	88.5	74.0	78.3	71.1	78.3	70.9	7247	82.5
2005	6511.9	950.0	85.1	74.6	84.1	71.8	78.2	71.3	7498	85.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					170	
B. Refuelling without a maintenance					35	
C. Inspection, maintenance or repair combined with refuelling	1219			1507		
D. Inspection, maintenance or repair without refuelling	43			153		
E. Testing of plant systems or components				20	0	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						30
Subtotal	1262	0	0	1680	205	30
Total	1262			1915		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		6
14. Safety Systems		2
15. Reactor Cooling Systems		11
16. Steam generation systems		20
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		12
32. Feedwater and Main Steam System		6
35. All other I&C Systems		0
41. Main Generator Systems		82
42. Electrical Power Supply Systems		5
XX. Miscellaneous Systems		1
Total	0	165

UA-126 ZAPOROZHE-5

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6278.9 GW(e).h
Energy Availability Factor: 80.8%
Load Factor: 75.4%
Operating Factor: 79.6%
Energy Unavailability Factor: 19.2%
Total Off-line Time: 1785 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	715.3	642.7	689.7	450.9	695.2	656.8	665.9	59.1	0.0	576.1	459.1	668.2	6278.9
EAF (%)	99.9	99.7	99.5	67.9	98.5	97.5	96.6	12.6	0.0	98.2	99.5	99.4	80.8
UCF (%)	100.0	99.7	99.5	68.1	99.7	99.5	99.1	12.9	0.0	99.3	100.0	99.9	81.5
LF (%)	101.2	100.7	97.6	66.0	98.4	96.0	94.2	8.4	0.0	81.4	67.1	94.5	75.4
OF (%)	100.0	100.0	99.9	69.1	100.0	100.0	100.0	11.3	0.0	98.9	75.8	100.0	79.6
EUF (%)	0.1	0.3	0.5	32.1	1.5	2.5	3.4	87.4	100.0	1.8	0.5	0.6	19.2
PUF (%)	0.0	0.2	0.0	28.0	0.0	0.0	0.0	87.1	100.0	0.6	0.0	0.0	18.0
UCLF (%)	0.1	0.1	0.5	3.9	0.3	0.5	0.9	0.0	0.0	0.2	0.0	0.1	0.5
XUF (%)	0.0	0.0	0.0	0.2	1.2	2.0	2.5	0.3	0.0	1.1	0.5	0.5	0.7

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE. BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: THE GRID DISPATCHER'S REQUEST =386 GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY: USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION - 66,6%REPLACEMENT THE HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL -PARTLYUSING THE SG MECHANICAL TUBE PLUGS

5. Historical Summary

Date of Construction Start: 01 Nov 1985 **Lifetime Generation:** 91405.0 GW(e).h
Date of First Criticality: 20 Jul 1989 **Cumulative Energy Availability Factor:** 71.9%
Date of Grid Connection: 14 Aug 1989 **Cumulative Load Factor:** 71.6%
Date of Commercial Operation: 27 Oct 1989 **Cumulative Unit Capability Factor:** 73.8%
Cumulative Energy Unavailability Factor: 28.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	1670.0	950.0	83.1	83.1	83.1	83.1	79.6	79.6	1957	88.6
1990	4678.7	950.0	57.9	63.0	56.6	62.0	56.2	60.9	6002	68.5
1991	6554.9	950.0	79.5	70.3	78.4	69.3	78.8	68.8	7319	83.6
1992	6898.8	1000.0	80.1	73.4	79.2	72.4	78.5	71.9	7032	80.1
1993	5661.8	950.0	68.9	72.4	68.3	71.5	68.0	71.0	6735	76.9
1994	4858.9	950.0	59.1	69.9	59.1	69.1	58.4	68.7	6779	77.4
1995	5391.9	950.0	66.0	69.3	64.7	68.4	64.8	68.0	6506	74.3
1996	6126.0	950.0	74.1	69.9	73.4	69.1	73.4	68.8	6799	77.4
1997	6381.5	950.0	76.2	70.7	75.8	69.9	76.7	69.7	6705	76.5
1998	5856.2	950.0	70.7	70.7	70.1	69.9	70.4	69.8	6249	71.3
1999	5070.2	950.0	63.0	70.0	60.6	69.0	60.9	68.9	5525	63.1
2000	6286.6	950.0	77.9	70.7	74.9	69.6	75.3	69.5	6928	78.9
2001	5890.8	950.0	76.2	71.1	70.7	69.6	70.6	69.6	6751	76.9
2002	6222.5	950.0	80.8	71.8	74.5	70.0	74.8	70.0	6983	79.7
2003	6585.5	950.0	80.2	72.4	79.0	70.6	79.1	70.6	7107	81.1
2004	6826.7	950.0	85.6	73.3	81.6	71.4	81.8	71.4	7551	86.0
2005	6278.9	950.0	81.5	73.8	80.8	71.9	75.4	71.6	6975	79.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		22			105	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	1376			1347		
D. Inspection, maintenance or repair without refuelling	201			257		
E. Testing of plant systems or components				29		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			186		2	11
Subtotal	1577	22	186	1633	116	11
Total		1785			1760	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		8
14. Safety Systems		1
15. Reactor Cooling Systems		8
16. Steam generation systems		50
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		10
32. Feedwater and Main Steam System		9
41. Main Generator Systems		8
42. Electrical Power Supply Systems		7
Total	0	103

UA-127 ZAPOROZHE-6

Operator: NNEGC (NATIONAL NUCLEAR ENERGY GENERATING COMPANY <ENERGOATOM>)

Contractor: PAIP (PRODUCTION AMALGAMATION IZHORSKY PLANT ATOMMASH,VOLGODONSK,RUSSIA)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 950.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5850.7 GW(e).h
Energy Availability Factor: 83.5%
Load Factor: 70.3%
Operating Factor: 74.9%
Energy Unavailability Factor: 16.5%
Total Off-line Time: 2203 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	681.3	396.1	0.0	296.6	0.0	551.4	565.4	682.4	685.4	678.9	660.2	653.1	5850.7
EAF (%)	100.0	62.5	0.1	44.2	100.0	98.8	96.7	99.0	100.0	99.5	100.0	99.6	83.5
UCF (%)	100.0	67.6	0.1	44.5	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	84.5
LF (%)	96.4	62.0	0.0	43.4	0.0	80.6	80.0	96.5	100.2	95.9	96.5	92.4	70.3
OF (%)	100.0	68.0	0.0	46.3	0.1	84.0	100.0	100.0	100.0	100.0	100.0	100.0	74.9
EUF (%)	0.0	37.5	99.9	55.8	0.0	1.2	3.3	1.0	0.0	0.5	0.0	0.4	16.5
PUF (%)	0.0	32.4	99.9	55.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	15.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	5.1	0.0	0.3	0.0	1.2	3.3	1.0	0.0	0.4	0.0	0.4	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

THERE WAS THE NPP OPERATION AT FULL POWER IN BASE LOAD MODE.BUT THERE WERE ENERGY LOSSES DUE TO EXTERNAL CAUSES: THE GRID DISPATCHER'S REQUEST =1055 GW(E)HMAJOR ACHIEVEMENTS LEADING TO INCREASED AVAILABILITY:USING COATING FOR CONDENSER TUBING TO PREVENT CORROSION - 62,5%REPLACEMENT THE HPFW (HIGH PRESSURE FEED WATER HEATER) TUBING ELBOWS ON STAINLESS STEEL -PARTLYUSING THE SG MECHANICAL TUBE PLUGS

5. Historical Summary

Date of Construction Start: 01 Jun 1986 **Lifetime Generation:** 60079.0 GW(e).h
Date of First Criticality: 06 Oct 1995 **Cumulative Energy Availability Factor:** 77.7%
Date of Grid Connection: 19 Oct 1995 **Cumulative Load Factor:** 76.8%
Date of Commercial Operation: 16 Sep 1996 **Cumulative Unit Capability Factor:** 80.4%
Cumulative Energy Unavailability Factor: 22.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1996	2359.7	950.0	86.4	86.4	84.8	84.8	84.8	84.8	2540	86.7
1997	6332.7	950.0	75.5	78.2	75.2	77.6	76.1	78.3	6640	75.8
1998	6132.2	950.0	76.2	77.4	73.4	75.8	73.7	76.3	6766	77.2
1999	6165.4	950.0	78.4	77.7	74.1	75.3	74.1	75.6	6934	79.2
2000	5844.2	950.0	70.1	75.9	69.3	73.9	70.0	74.3	6191	70.5
2001	6336.2	950.0	80.1	76.7	75.2	74.2	75.9	74.6	7118	81.0
2002	6790.6	950.0	83.4	77.8	81.0	75.2	81.6	75.7	7393	84.4
2003	7006.4	950.0	86.3	78.9	83.5	76.3	84.2	76.9	7590	86.6
2004	6867.8	950.0	87.4	79.9	81.7	77.0	82.3	77.5	7715	87.8
2005	5850.7	950.0	84.5	80.4	83.5	77.7	70.3	76.8	6557	74.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1995 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					33	
C. Inspection, maintenance or repair combined with refuelling	1345			1175		
D. Inspection, maintenance or repair without refuelling				93		
E. Testing of plant systems or components				41		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)			859			
Subtotal	1345	0	859	1309	33	0
Total		2204			1342	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1995 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems		4
16. Steam generation systems		5
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		12
32. Feedwater and Main Steam System		0
35. All other I&C Systems		0
41. Main Generator Systems		1
42. Electrical Power Supply Systems		2
XX. Miscellaneous Systems		2
Total	0	28

GB-9A DUNGENESS-A1

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1. Station Details

Type: GCR
Net Reference Unit Power
at the beginning of 2005: 225.0 MW(e)
Design Net Capacity: 275.0 MW(e)
Design Discharge Burnup: 5000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1609.4 GW(e).h
Energy Availability Factor: 81.7%
Load Factor: 81.7%
Operating Factor: 89.9%
Energy Unavailability Factor: 18.3%
Total Off-line Time: 888 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	155.7	25.1	159.9	149.8	146.8	79.7	148.7	156.6	151.3	151.2	135.6	149.1	1609.4
EAF (%)	93.0	16.6	95.5	92.5	87.7	49.2	88.8	93.5	93.4	90.3	83.7	89.1	81.7
UCF (%)	93.0	16.6	95.5	92.5	87.7	49.2	88.8	93.5	93.4	90.4	83.7	89.1	81.7
LF (%)	93.0	16.6	95.5	92.6	87.7	49.2	88.8	93.5	93.4	90.2	83.7	89.1	81.7
OF (%)	100.0	26.0	100.0	100.1	100.0	60.3	94.9	100.0	100.0	99.9	90.7	100.0	89.9
EUF (%)	7.0	83.4	4.5	7.5	12.3	50.8	11.2	6.5	6.6	9.7	16.3	10.9	18.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	7.0	83.4	4.5	7.5	12.3	50.8	11.2	6.5	6.6	9.7	16.3	10.9	18.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 THERE WERE THREE MANUAL SCRAMS. THE FIRST OUTAGE WAS OF ABOUT 21 DAYS COMMENCING ON 03 FEBRUARY 2005 AND WAS DUE TO COOLING WATER CONDENSER WATERBOX REPAIRS. THE SECOND OUTAGE WAS OF ABOUT 13 DAYS COMMENCING ON 19 JUNE AND WAS DUE TO TEMPERATURE MONITORING SYSTEM. THE THIRD OUTAGE WAS OF ABOUT THREE DAYS COMMENCING ON 02 NOVEMBER AND WAS DUE TO STEAM LEAK REPAIRS.

5. Historical Summary

Date of Construction Start: 01 Jul 1960
Date of First Criticality: 01 Jun 1965
Date of Grid Connection: 21 Sep 1965
Date of Commercial Operation: 28 Oct 1965

Lifetime Generation: 57459.0 GW(e).h
Cumulative Energy Availability Factor: 74.5%
Cumulative Load Factor: 66.5%
Cumulative Unit Capability Factor: 83.5%
Cumulative Energy Unavailability Factor: 25.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1965	0.0	220.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1966	0.0	220.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1967	0.0	220.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1968	0.0	220.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1969	0.0	220.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	3176.0	577.0	100.0	100.0	62.8	85.8	62.8	24.0	0	0.0
1971	3407.0	470.0	100.0	100.0	82.3	85.0	82.3	37.8	8809	100.0
1972	3418.9	570.0	100.0	100.0	68.6	81.4	68.7	44.7	8736	100.0
1973	3211.0	410.0	90.3	98.7	89.0	82.4	89.6	50.9	8736	100.0
1974	3374.0	410.0	100.0	98.8	93.8	83.8	94.2	56.2	8672	99.3
1975	3297.0	410.0	100.0	98.9	92.1	84.7	92.0	60.0	8736	100.0
1976	3061.0	410.0	100.0	99.1	83.8	84.6	83.8	62.4	8867	99.6
1977	2819.0	410.0	100.0	99.1	78.9	84.1	78.7	63.8	8736	100.0
1978	2667.0	410.0	100.0	99.2	74.7	83.3	74.5	64.7	8731	99.9
1979	1169.0	410.0	100.0	99.3	39.5	80.0	32.6	62.3	6905	79.0
1980	69.0	410.0	2.1	92.5	2.1	74.6	1.9	58.1	540	6.2
1981	120.0	410.0	2.4	86.4	2.4	69.7	3.3	54.4	840	9.4
1982	2590.0	410.0	72.3	85.6	72.3	69.9	72.3	55.5	8666	99.2
1983	2962.0	410.0	82.4	85.4	82.4	70.6	82.7	57.1	8736	100.0
1984	2914.0	410.0	80.9	85.2	80.9	71.2	81.4	58.4	8736	100.0
1985	3336.3	424.0	91.8	85.5	90.6	72.2	90.1	60.1	8716	99.8
1986	2626.4	424.0	71.6	84.8	70.2	72.1	70.9	60.7	8678	99.3
1987	3054.8	424.0	87.6	84.9	81.3	72.6	80.9	61.7	8796	98.8
1988	2084.8	424.0	62.6	83.9	61.7	72.1	56.3	61.4	8568	98.1
1989	2203.0	424.0	60.1	82.9	59.4	71.5	59.5	61.3	8736	100.0
1990	2995.3	424.0	81.0	82.8	81.0	71.9	80.9	62.1	8711	99.7
1991	3200.4	424.0	91.0	83.1	90.5	72.7	86.4	63.1	8695	99.5
1992	3745.7	440.0	95.9	83.6	95.9	73.6	98.2	64.5	8905	100.0
1993	3219.4	440.0	83.9	83.6	83.4	74.0	83.8	65.3	8697	99.6
1994	3540.7	440.0	93.2	84.0	92.0	74.6	92.1	66.3	8101	92.7
1995	Data not provided									
1996	"									
1997	"									
1998	"									
1999	"									
2000	"									
2001	"									
2002	"									
2003	"									
2004	1197.0	225.0	60.5	83.6	60.5	74.4	60.7	66.2	6009	68.6
2005	1609.4	225.0	81.7	83.5	81.7	74.5	81.7	66.5	7872	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		888			383	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	50					
D. Inspection, maintenance or repair without refuelling	859					
E. Testing of plant systems or components	0				6	
H. Nuclear regulatory requirements					22	
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						14
Subtotal	0	888	0	909	414	16
Total		888			1339	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		9
13. Reactor Auxiliary Systems		2
14. Safety Systems	324	0
15. Reactor Cooling Systems		7
16. Steam generation systems	67	
21. Fuel Handling and Storage Facilities		14
31. Turbine and auxiliaries		19
32. Feedwater and Main Steam System	497	0
33. Circulating Water System		0
41. Main Generator Systems		4
42. Electrical Power Supply Systems		2
Total	888	57

GB-9B DUNGENESS-A2

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1. Station Details

Type: GCR
Net Reference Unit Power
at the beginning of 2005: 225.0 MW(e)
Design Net Capacity: 275.0 MW(e)
Design Discharge Burnup: 5000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1216.7 GW(e).h
Energy Availability Factor: 61.7%
Load Factor: 61.7%
Operating Factor: 75.2%
Energy Unavailability Factor: 38.3%
Total Off-line Time: 2171 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	145.8	7.7	94.8	32.4	56.6	142.5	133.2	112.2	106.6	129.3	108.0	147.7	1216.7
EAF (%)	87.1	5.1	56.6	19.9	33.8	87.9	79.6	67.0	65.8	77.2	66.7	88.2	61.7
UCF (%)	87.1	5.1	56.7	19.9	33.8	88.0	79.6	67.0	65.8	77.2	66.7	88.2	61.7
LF (%)	87.1	5.1	56.6	20.0	33.8	87.9	79.6	67.0	65.8	77.1	66.7	88.2	61.7
OF (%)	100.0	7.1	74.2	25.5	36.6	100.0	100.0	90.2	83.1	94.0	85.1	100.0	75.2
EUF (%)	12.9	94.9	43.4	80.1	66.2	12.1	20.4	33.0	34.2	22.8	33.3	11.8	38.3
PUF (%)	0.0	0.0	0.0	74.7	63.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
UCLF (%)	12.9	94.9	43.4	5.4	2.8	12.1	20.4	33.0	34.2	22.8	33.3	11.8	26.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 THERE WAS ONE AUTOMATIC SCRAM AND FOUR MANUAL SCRAMS. THE AUTOMATIC SCRAM OF ABOUT 2 DAYS DURATION COMMENCED ON 09 NOVEMBER AND WAS DUE TO A FAILED RELAY IN THE CONTROL ROD SUPPLIES. THE FIRST MANUAL SCRAM OF ABOUT 34 DAYS DURATION COMMENCED ON 02 FEBRUARY AND WAS INITIALLY DUE TO A CONTROL ROD PROBLEM BUT REMAINED OUT OF SERVICE TO REPAIR CW CONDENSER WATERBOXES. THE SECOND MANUAL OUTAGE OF ABOUT THREE DAYS COMMENCED 03 AUGUST AND WAS DUE TO A STUCK FUEL ELEMENT. THE THIRD MANUAL OUTAGE OF ABOUT FIVE DAYS WAS DUE TO HIGH BCD READINGS. THE FOURTH MANUAL OUTAGE OF ABOUT FOUR DAYS COMMENCED ON 30 OCTOBER AND WAS DUE TO A SMALL BORE PIPEWORK LEAK REPAIR.

5. Historical Summary

Date of Construction Start:	01 Jul 1960	Lifetime Generation:	58831.0 GW(e).h
Date of First Criticality:	01 Sep 1965	Cumulative Energy Availability Factor:	73.2%
Date of Grid Connection:	01 Nov 1965	Cumulative Load Factor:	73.3%
Date of Commercial Operation:	30 Dec 1965	Cumulative Unit Capability Factor:	73.2%
		Cumulative Energy Unavailability Factor:	26.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1965			Data not provided							
1966										
1967										
1968										
1969										
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1972										
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2003										
2004	1674.6	225.0	84.7	84.7	84.7	84.7	85.0	85.0	8280	94.5
2005	1216.7	225.0	61.7	73.2	61.7	73.2	61.7	73.3	6589	75.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1162			383	
B. Refuelling without a maintenance					0	
D. Inspection, maintenance or repair without refuelling	1009			808		
E. Testing of plant systems or components				0	0	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						9
Subtotal	1009	1162	0	808	383	9
Total		2171			1200	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		4
12. Reactor I&C Systems	800	9
13. Reactor Auxiliary Systems	109	
15. Reactor Cooling Systems		43
21. Fuel Handling and Storage Facilities	73	10
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System	180	5
33. Circulating Water System		1
42. Electrical Power Supply Systems		3
Total	1162	76

GB-18A DUNGENESS-B1

Operator: BE (BRITISH ENERGY)

Contractor: APC (ATOMIC POWER CONSTRUCTION LTD.)

1. Station Details

Type: GCR
 Net Reference Unit Power
 at the beginning of 2005: 555.0 MW(e)
 Design Net Capacity: 607.0 MW(e)
 Design Discharge Burnup: 19000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2955.1 GW(e).h
 Energy Availability Factor: 61.6%
 Load Factor: 60.8%
 Operating Factor: 68.9%
 Energy Unavailability Factor: 38.4%
 Total Off-line Time: 2721 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	403.1	362.7	127.8	386.0	403.4	215.1	296.7	353.1	20.1	75.0	262.3	49.7	2955.1
EAF (%)	97.6	97.3	32.5	96.5	98.0	44.9	81.8	86.3	-0.1	26.3	76.4	4.4	61.6
UCF (%)	98.6	97.3	32.5	96.5	98.0	44.9	81.8	86.3	-0.2	26.3	76.4	4.4	61.7
LF (%)	97.6	97.3	30.9	96.7	97.7	53.8	71.9	85.5	5.0	18.1	65.6	12.0	60.8
OF (%)	100.0	100.0	45.4	100.1	100.0	58.9	92.7	93.5	9.0	31.0	72.2	26.2	68.9
EUF (%)	2.4	2.7	67.5	3.5	2.0	55.1	18.2	13.7	100.1	73.7	23.6	95.6	38.4
PUF (%)	0.0	1.3	54.2	1.4	1.8	55.1	10.3	3.3	51.4	55.0	2.7	1.7	19.9
UCLF (%)	1.4	1.5	13.3	2.1	0.3	0.0	7.9	10.4	48.8	18.7	20.9	93.9	18.4
XUF (%)	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1965 Lifetime Generation: 66573.7 GW(e).h
 Date of First Criticality: 04 Dec 1985 Cumulative Energy Availability Factor: 45.2%
 Date of Grid Connection: 29 Dec 1985 Cumulative Load Factor: 44.4%
 Date of Commercial Operation: 01 Apr 1989 Cumulative Unit Capability Factor: 46.0%
 Cumulative Energy Unavailability Factor: 54.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	88.5	360.0	23.7	23.7	12.3	12.3	3.4	3.4	552	8.4
1990	758.0	360.0	26.3	25.1	26.3	19.9	24.1	14.6	5093	58.3
1991	2656.2	415.0	74.5	44.1	74.5	40.8	74.0	37.4	7329	83.9
1992	1052.3	520.0	27.5	39.2	27.4	36.9	26.7	34.2	2670	30.0
1993	3493.2	540.0	77.5	48.9	77.1	47.0	77.5	45.2	7138	81.7
1994	2385.7	555.0	51.5	49.4	49.2	47.5	49.2	46.0	4676	53.5
1995	873.7	555.0	18.2	43.9	18.2	42.3	17.9	41.0	1587	18.1
1996	2517.0	555.0	51.6	45.1	51.6	43.7	51.6	42.6	5311	60.5
1997	2078.2	555.0	42.9	44.8	42.9	43.6	42.6	42.6	4549	51.8
1998	2198.3	555.0	47.4	45.1	47.0	44.0	45.1	42.9	5716	65.1
1999	1584.2	555.0	33.0	43.8	33.0	42.9	32.5	41.8	4752	54.1
2000	409.6	555.0	8.4	40.5	8.4	39.6	8.4	38.7	1201	13.7
2001	3049.1	555.0	62.2	42.4	61.9	41.5	62.5	40.7	7108	80.9
2002	2167.6	555.0	45.6	42.6	45.5	41.9	44.6	41.1	5043	57.6
2003	2482.9	555.0	54.6	43.5	51.9	42.6	51.1	41.8	5212	59.5
2004	3082.5	555.0	63.8	44.9	63.8	44.0	63.2	43.2	6305	71.8
2005	2955.1	555.0	61.7	46.0	61.6	45.2	60.8	44.4	6039	68.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1488			982	
B. Refuelling without a maintenance					41	
C. Inspection, maintenance or repair combined with refuelling	912	72		560	83	
D. Inspection, maintenance or repair without refuelling				1134	85	
E. Testing of plant systems or components					6	7
H. Nuclear regulatory requirements				359		
J. Grid failure or grid unavailability						9
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					11	5
L. Human factor related					10	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					8	
Z. Others	1080			59		
Subtotal	1992	1560	0	2112	1226	21
Total		3552			3359	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	144	31
13. Reactor Auxiliary Systems		19
14. Safety Systems		1
15. Reactor Cooling Systems		27
16. Steam generation systems	432	47
21. Fuel Handling and Storage Facilities		9
31. Turbine and auxiliaries		75
32. Feedwater and Main Steam System		629
33. Circulating Water System		26
41. Main Generator Systems	912	83
42. Electrical Power Supply Systems		21
XX. Miscellaneous Systems		0
Total	1488	968

GB-18B DUNGENESS-B2**Operator:** BE (BRITISH ENERGY)**Contractor:** APC (ATOMIC POWER CONSTRUCTION LTD.)**1. Station Details**

Type: GCR

Net Reference Unit Power at the beginning of 2005: 555.0 MW(e)

Design Net Capacity: 607.0 MW(e)

Design Discharge Burnup: 18000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2739.7 GW(e).h

Energy Availability Factor: 57.7%

Load Factor: 56.4%

Operating Factor: 64.1%

Energy Unavailability Factor: 42.3%

Total Off-line Time: 3148 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	199.9	354.2	389.6	329.9	116.5	378.2	393.8	296.0	0.0	0.0	0.0	281.7	2739.7
EAF (%)	49.6	92.5	94.5	80.3	32.7	93.5	95.9	81.8	0.0	9.7	6.7	56.7	57.7
UCF (%)	49.6	92.6	94.5	80.4	32.7	93.5	95.9	81.8	0.0	9.7	6.7	56.7	57.7
LF (%)	48.4	95.0	94.3	82.7	28.2	94.6	95.4	71.7	0.0	0.0	0.0	68.2	56.4
OF (%)	62.5	100.0	100.0	94.2	44.0	100.0	100.0	82.9	0.0	0.0	0.0	86.8	64.1
EUF (%)	50.4	7.5	5.5	19.7	67.3	6.5	4.1	18.2	100.0	90.3	93.3	43.3	42.3
PUF (%)	33.4	1.6	0.0	4.9	66.9	4.9	3.8	13.0	100.0	90.3	45.1	14.3	31.7
UCLF (%)	17.0	5.8	5.5	14.8	0.3	1.6	0.4	5.2	0.0	0.0	48.3	29.0	10.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Oct 1965 **Lifetime Generation:** 69671.1 GW(e).h

Date of First Criticality: 23 Dec 1982 **Cumulative Energy Availability Factor:** 46.5%

Date of Grid Connection: 03 Apr 1983 **Cumulative Load Factor:** 46.9%

Date of Commercial Operation: 01 Apr 1985 **Cumulative Unit Capability Factor:** 49.4%

Cumulative Energy Unavailability Factor: 53.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985			Data not provided							
1986	1249.9	450.0	58.6	58.6	27.9	27.9	31.8	31.8	4973	56.9
1987	758.6	450.0	36.4	47.4	17.8	22.8	18.9	25.3	3241	36.4
1988	1041.3	450.0	36.8	43.9	28.4	24.7	26.5	25.7	2838	32.5
1989	232.6	360.0	8.7	35.7	6.3	20.4	6.5	21.2	696	8.0
1990	726.0	360.0	23.1	33.6	23.1	20.8	23.1	21.5	4060	46.5
1991	1467.2	415.0	44.8	35.4	44.8	24.7	40.9	24.7	4295	49.2
1992	2360.4	520.0	62.0	39.4	61.9	30.3	59.9	30.0	6525	73.3
1993	2306.7	555.0	50.2	41.0	50.0	33.2	51.0	33.1	4672	53.5
1994	2568.3	555.0	57.1	43.2	57.0	36.5	53.0	35.8	5075	58.1
1995	773.8	555.0	16.1	39.9	16.1	34.0	15.9	33.4	1358	15.5
1996	3615.0	555.0	74.2	43.6	74.1	38.3	74.2	37.8	6882	78.3
1997	3327.3	555.0	68.5	46.0	68.3	41.2	68.3	40.7	6975	79.4
1998	1897.8	555.0	39.2	45.4	39.2	41.1	38.9	40.6	4390	50.0
1999	2123.3	555.0	30.6	44.2	30.6	40.2	43.6	40.8	5504	62.7
2000	1814.3	555.0	37.2	43.7	37.2	40.0	37.2	40.6	3767	42.9
2001	3007.4	555.0	62.1	45.0	61.1	41.5	61.7	42.0	6393	72.8
2002	2483.3	555.0	51.8	45.4	51.8	42.1	51.1	42.6	5135	58.6
2003	3747.3	555.0	78.3	47.4	76.0	44.2	77.1	44.7	7275	83.0
2004	3514.4	555.0	72.6	48.9	72.6	45.9	72.3	46.3	7138	81.5
2005	2739.7	555.0	57.7	49.4	57.7	46.5	56.4	46.9	5612	64.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					573	
B. Refuelling without a maintenance				37	5	
C. Inspection, maintenance or repair combined with refuelling	1776	816		712	112	
D. Inspection, maintenance or repair without refuelling				961		
E. Testing of plant systems or components						25
H. Nuclear regulatory requirements				452		
J. Grid failure or grid unavailability					2	9
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				26		12
Z. Others	672			59	14	
Subtotal	2448	816	0	2247	706	46
Total	3264			2999		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		12
12. Reactor I&C Systems		59
13. Reactor Auxiliary Systems		2
15. Reactor Cooling Systems		24
16. Steam generation systems		40
17. Safety I&C Systems (excluding reactor I&C)		1
21. Fuel Handling and Storage Facilities		18
31. Turbine and auxiliaries		26
32. Feedwater and Main Steam System		263
33. Circulating Water System		57
41. Main Generator Systems		0
42. Electrical Power Supply Systems		8
XX. Miscellaneous Systems		55
Total	0	565

GB-19A HARTLEPOOL-A1

Operator: BE (BRITISH ENERGY)

Contractor: NPC (NUCLEAR POWER CO. LTD.)

1. Station Details

Type: GCR

Net Reference Unit Power
at the beginning of 2005: 605.0 MW(e)

Design Net Capacity: 625.0 MW(e)

Design Discharge Burnup: 24000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2322.9 GW(e).h

Energy Availability Factor: 43.9%

Load Factor: 43.8%

Operating Factor: 55.1%

Energy Unavailability Factor: 56.1%

Total Off-line Time: 3931 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	269.0	389.1	288.2	315.9	326.5	192.8	85.2	369.9	86.3	0.0	0.0	0.0	2322.9
EAF (%)	60.6	95.7	64.7	71.5	75.2	18.0	30.1	83.9	13.2	9.7	7.7	0.0	43.9
UCF (%)	60.6	95.7	64.7	71.5	75.2	18.0	30.1	83.9	13.2	9.7	7.7	0.0	43.9
LF (%)	59.8	95.7	64.0	72.6	72.5	44.3	18.9	82.2	19.8	0.0	0.0	0.0	43.8
OF (%)	77.0	100.0	85.8	100.1	100.0	41.4	30.5	100.0	26.5	0.0	3.1	0.0	55.1
EUF (%)	39.4	4.3	35.3	28.5	24.8	82.0	69.9	16.1	86.8	90.3	92.3	100.0	56.1
PUF (%)	0.5	2.5	0.1	5.1	4.5	71.5	35.1	4.6	6.4	5.1	5.2	0.0	11.7
UCLF (%)	39.0	1.8	35.2	23.3	20.3	10.5	34.8	11.5	80.4	85.3	87.1	100.0	44.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Oct 1968 Lifetime Generation: 70002.1 GW(e).h

Date of First Criticality: 24 Jun 1983 Cumulative Energy Availability Factor: 74.0%

Date of Grid Connection: 01 Aug 1983 Cumulative Load Factor: 71.3%

Date of Commercial Operation: 01 Apr 1989 Cumulative Unit Capability Factor: 74.1%

 Cumulative Energy Unavailability Factor: 26.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	1315.7	420.0	72.8	72.8	72.8	72.8	39.1	39.1	2983	45.2
1990	1698.7	510.0	40.1	54.5	40.1	54.5	39.9	39.5	3486	39.9
1991	2953.4	625.0	75.0	63.1	75.0	63.1	54.1	45.6	6791	77.7
1992	2910.4	510.0	63.6	63.2	63.5	63.2	64.1	50.4	6156	69.1
1993	4449.6	605.0	87.4	68.7	87.1	68.5	87.4	58.7	7802	89.3
1994	4296.6	605.0	81.7	71.1	81.4	71.0	81.3	62.9	7716	88.3
1995	3584.2	605.0	67.7	70.6	67.7	70.4	67.4	63.7	5937	67.6
1996	4518.0	605.0	85.7	72.7	85.6	72.5	85.0	66.6	7691	87.6
1997	4441.7	605.0	83.9	74.0	83.6	73.9	83.6	68.7	7644	87.0
1998	3892.3	605.0	73.5	74.0	73.5	73.8	73.2	69.1	7108	80.9
1999	5000.1	605.0	94.4	75.9	94.4	75.8	94.1	71.6	8369	95.3
2000	4757.3	605.0	89.5	77.1	88.6	77.0	89.5	73.2	8153	92.8
2001	4291.2	605.0	81.0	77.5	80.9	77.3	80.7	73.8	7301	83.1
2002	4627.8	605.0	87.5	78.2	87.5	78.1	87.3	74.8	7965	90.9
2003	4583.3	605.0	86.6	78.8	86.6	78.7	86.5	75.6	7856	89.7
2004	1942.7	605.0	36.7	76.1	36.7	75.9	36.7	73.1	3385	38.6
2005	2322.9	605.0	43.9	74.1	43.9	74.0	43.8	71.3	4829	55.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1200			516	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling				512	26	
D. Inspection, maintenance or repair without refuelling	552			912		
E. Testing of plant systems or components					21	
G. Major back-fitting, refurbishment or upgrading activities without refuelling				56		
H. Nuclear regulatory requirements				284	235	
J. Grid failure or grid unavailability					4	3
Z. Others	192	1800				
Subtotal	744	3000	0	1764	811	3
Total		3744			2578	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		24
13. Reactor Auxiliary Systems		52
16. Steam generation systems		244
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		59
32. Feedwater and Main Steam System		77
41. Main Generator Systems	1200	11
42. Electrical Power Supply Systems		41
Total	1200	510

GB-19B HARTLEPOOL-A2

Operator: BE (BRITISH ENERGY)

Contractor: NPC (NUCLEAR POWER CO. LTD.)

1. Station Details

Type: GCR
 Net Reference Unit Power
 at the beginning of 2005: 605.0 MW(e)
 Design Net Capacity: 600.0 MW(e)
 Design Discharge Burnup: 24000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3651.6 GW(e).h
 Energy Availability Factor: 69.2%
 Load Factor: 68.9%
 Operating Factor: 73.4%
 Energy Unavailability Factor: 30.8%
 Total Off-line Time: 2332 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	410.4	379.0	425.6	252.9	298.1	378.3	426.2	429.1	14.7	0.0	190.2	447.3	3651.6
EAF (%)	91.2	93.2	94.7	59.0	73.4	80.1	95.1	95.7	-2.7	9.7	41.5	99.3	69.2
UCF (%)	91.2	93.2	94.7	59.0	73.4	80.1	95.1	95.7	-2.7	9.7	41.5	99.3	69.2
LF (%)	91.2	93.2	94.6	58.1	66.2	86.8	94.7	95.3	3.4	0.0	43.7	99.4	68.9
OF (%)	100.0	100.0	98.0	64.1	69.8	93.3	100.0	100.0	4.7	0.0	50.7	100.0	73.4
EUF (%)	8.8	6.8	5.3	41.0	26.6	19.9	4.9	4.3	102.7	90.3	58.5	0.7	30.8
PUF (%)	3.2	2.1	5.3	34.8	2.6	5.0	3.9	3.9	75.3	7.6	9.7	0.7	12.7
UCLF (%)	5.7	4.7	0.0	6.2	24.1	15.0	1.0	0.4	27.5	82.8	48.9	0.0	18.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1968
 Date of First Criticality: 09 Sep 1984
 Date of Grid Connection: 31 Oct 1984
 Date of Commercial Operation: 01 Apr 1989

Lifetime Generation: 65872.1 GW(e).h
 Cumulative Energy Availability Factor: 77.5%
 Cumulative Load Factor: 75.5%
 Cumulative Unit Capability Factor: 77.8%
 Cumulative Energy Unavailability Factor: 22.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	2234.8	420.0	100.0	100.0	100.0	100.0	80.6	80.6	4689	71.0
1990	3238.4	510.0	74.1	84.3	74.1	84.3	76.0	77.8	6796	77.8
1991	1855.9	625.0	55.1	71.6	55.1	71.6	34.0	58.7	3755	43.0
1992	4316.8	575.0	87.3	76.1	87.0	76.0	84.9	66.3	7923	89.0
1993	4264.6	605.0	84.9	78.1	83.8	77.8	83.8	70.2	7682	87.9
1994	3703.9	605.0	70.2	76.6	69.9	76.3	70.1	70.2	6612	75.7
1995	3750.7	605.0	70.9	75.7	70.9	75.4	70.6	70.2	6149	70.0
1996	4370.3	605.0	82.2	76.6	82.1	76.3	82.2	71.9	8131	92.6
1997	4127.9	605.0	77.9	76.8	77.2	76.4	77.7	72.6	6954	79.2
1998	4555.1	605.0	86.0	77.7	85.6	77.4	85.7	74.0	7973	90.8
1999	4472.5	605.0	84.4	78.4	83.6	78.0	84.2	75.0	7808	88.9
2000	4265.9	605.0	80.3	78.6	80.3	78.2	80.3	75.5	7463	85.0
2001	4635.9	605.0	87.5	79.3	87.5	79.0	87.2	76.4	8092	92.1
2002	4910.3	605.0	92.7	80.3	92.7	80.0	92.7	77.6	8383	95.7
2003	3488.4	605.0	66.4	79.3	66.4	79.1	65.8	76.8	6258	71.4
2004	3380.6	605.0	63.9	78.3	63.9	78.1	63.8	76.0	6016	68.7
2005	3651.6	605.0	69.2	77.8	69.2	77.5	68.9	75.5	6428	73.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					513	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling				598	2	
D. Inspection, maintenance or repair without refuelling				662		
E. Testing of plant systems or components					6	
G. Major back-fitting, refurbishment or upgrading activities without refuelling				52		
H. Nuclear regulatory requirements				120		60
Z. Others	696	168		38		
Subtotal	696	168	0	1470	526	60
Total	864			2056		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		34
12. Reactor I&C Systems		21
13. Reactor Auxiliary Systems		3
15. Reactor Cooling Systems		65
21. Fuel Handling and Storage Facilities		3
31. Turbine and auxiliaries		23
32. Feedwater and Main Steam System		188
41. Main Generator Systems		138
42. Electrical Power Supply Systems		19
Total	0	494

GB-20A HEYSHAM-A1

Operator: BE (BRITISH ENERGY)

Contractor: NPC (NUCLEAR POWER CO. LTD.)

1. Station Details

Type: GCR

Net Reference Unit Power
at the beginning of 2005: 575.0 MW(e)

Design Net Capacity: 611.0 MW(e)

Design Discharge Burnup: 24000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4033.1 GW(e).h

Energy Availability Factor: 80.1%

Load Factor: 80.1%

Operating Factor: 85.1%

Energy Unavailability Factor: 19.9%

Total Off-line Time: 1302 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	428.8	377.7	426.3	228.5	372.2	380.1	417.5	408.0	146.3	1.2	411.4	435.0	4033.1
EAF (%)	99.9	97.7	99.8	55.8	87.5	91.5	97.8	95.5	29.6	10.5	96.4	100.0	80.1
UCF (%)	99.9	97.7	99.8	55.8	87.5	91.5	97.8	95.5	29.6	10.5	96.4	100.0	80.1
LF (%)	100.2	97.7	99.6	55.3	87.0	91.8	97.6	95.4	35.3	0.3	99.4	101.7	80.1
OF (%)	100.0	100.0	100.0	65.8	100.0	100.0	100.0	100.0	50.7	5.9	100.0	100.0	85.1
EUF (%)	0.1	2.3	0.2	44.2	12.5	8.5	2.2	4.5	70.4	89.5	3.6	0.0	19.9
PUF (%)	0.0	0.2	0.2	43.3	3.2	3.5	2.2	2.4	36.2	31.9	3.5	0.0	10.5
UCLF (%)	0.1	2.1	0.0	0.9	9.2	5.1	0.0	2.1	34.2	57.6	0.1	0.0	9.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Dec 1970 Lifetime Generation: 70382.2 GW(e).h

Date of First Criticality: 06 Apr 1983 Cumulative Energy Availability Factor: 76.1%

Date of Grid Connection: 09 Jul 1983 Cumulative Load Factor: 74.8%

Date of Commercial Operation: 01 Apr 1989 Cumulative Unit Capability Factor: 76.4%

 Cumulative Energy Unavailability Factor: 23.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	2351.6	420.0	100.0	100.0	100.0	100.0	84.8	84.8	5448	82.5
1990	1786.7	510.0	43.4	65.7	43.4	65.7	42.0	58.9	4096	46.9
1991	3826.2	621.0	86.4	74.7	86.4	74.7	70.5	63.9	7279	83.3
1992	2764.2	550.0	55.8	69.4	55.6	69.3	56.4	61.8	5981	67.2
1993	3638.2	560.0	75.0	70.6	74.3	70.4	75.0	64.7	6643	76.0
1994	4563.4	575.0	90.5	74.3	90.4	74.1	90.8	69.5	8128	93.0
1995	2808.9	575.0	55.9	71.4	55.9	71.3	55.6	67.4	4794	54.6
1996	4056.8	575.0	80.3	72.6	80.2	72.5	80.3	69.1	7674	87.4
1997	4298.8	575.0	85.4	74.1	84.5	73.9	85.1	71.0	7757	88.3
1998	3766.1	575.0	74.8	74.2	73.8	73.9	74.6	71.4	6950	79.1
1999	4549.8	575.0	90.4	75.8	89.7	75.4	90.1	73.2	7990	91.0
2000	4587.9	575.0	90.8	77.1	90.4	76.7	90.8	74.7	8230	93.7
2001	4034.6	575.0	78.0	77.2	77.6	76.8	79.9	75.2	6959	79.2
2002	4445.5	575.0	88.4	78.0	87.9	77.6	88.3	76.1	7921	90.4
2003	3746.2	575.0	74.8	77.8	74.4	77.4	74.4	76.0	6783	77.4
2004	2638.1	575.0	52.7	76.1	52.4	75.8	52.4	74.5	4951	56.5
2005	4033.1	575.0	80.1	76.4	80.1	76.1	80.1	74.8	7458	85.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					410	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				810	16	
D. Inspection, maintenance or repair without refuelling				647		
E. Testing of plant systems or components					87	33
H. Nuclear regulatory requirements				106	66	19
J. Grid failure or grid unavailability					7	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						9
Z. Others	528	720		27	4	
Subtotal	528	720	0	1590	592	61
Total	1248			2243		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		7
15. Reactor Cooling Systems		62
16. Steam generation systems		17
31. Turbine and auxiliaries		6
32. Feedwater and Main Steam System		26
33. Circulating Water System		140
41. Main Generator Systems		102
42. Electrical Power Supply Systems		36
XX. Miscellaneous Systems		9
Total	0	405

GB-20B HEYSHAM-A2

Operator: BE (BRITISH ENERGY)

Contractor: NPC (NUCLEAR POWER CO. LTD.)

1. Station Details

Type: GCR

Net Reference Unit Power
at the beginning of 2005: 575.0 MW(e)

Design Net Capacity: 611.0 MW(e)

Design Discharge Burnup: 24000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2112.6 GW(e).h

Energy Availability Factor: 43.7%

Load Factor: 41.9%

Operating Factor: 44.2%

Energy Unavailability Factor: 56.3%

Total Off-line Time: 4891 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	395.5	0.0	0.0	206.8	86.4	0.0	0.0	341.8	165.2	127.5	361.9	427.4	2112.6
EAF (%)	92.6	0.0	0.1	51.4	27.1	0.0	9.7	80.6	34.2	37.3	87.4	99.2	43.7
UCF (%)	92.6	0.0	0.1	51.4	27.1	0.0	9.7	80.6	34.2	37.3	87.4	99.2	43.7
LF (%)	92.5	0.0	0.0	50.0	20.2	0.0	0.0	79.9	39.9	29.8	87.4	99.9	41.9
OF (%)	95.2	0.0	0.0	56.7	21.5	0.0	0.0	87.9	38.3	33.3	93.2	100.0	44.2
EUF (%)	7.4	100.0	99.9	48.6	72.9	100.0	90.3	19.4	65.8	62.7	12.6	0.8	56.3
PUF (%)	2.4	0.0	0.0	4.0	72.9	100.0	6.2	6.3	4.9	4.0	1.4	0.2	16.9
UCLF (%)	5.0	100.0	99.9	44.6	0.0	0.0	84.2	13.1	60.9	58.6	11.2	0.6	39.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Dec 1970 Lifetime Generation: GW(e).h

Date of First Criticality: 03 Jun 1984 Cumulative Energy Availability Factor: 73.2%

Date of Grid Connection: 11 Oct 1984 Cumulative Load Factor: 71.7%

Date of Commercial Operation: 01 Apr 1989 Cumulative Unit Capability Factor: 73.7%

 Cumulative Energy Unavailability Factor: 26.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	2505.6	420.0	100.0	100.0	100.0	100.0	90.4	90.4	5507	83.4
1990	3044.2	510.0	72.0	83.0	72.0	83.0	71.5	78.9	6690	76.6
1991	2647.7	622.0	65.0	75.2	64.6	75.0	48.7	65.8	5132	58.7
1992	3548.1	550.0	74.6	75.0	72.8	74.4	72.5	67.7	6951	78.1
1993	4336.5	560.0	88.5	77.9	88.1	77.4	89.4	72.4	7886	90.3
1994	3707.5	575.0	75.3	77.5	77.3	77.4	73.8	72.7	6652	76.1
1995	3367.5	575.0	66.9	75.8	66.9	75.7	66.7	71.7	5772	65.7
1996	3561.9	575.0	70.8	75.1	70.5	75.0	70.5	71.6	6836	77.8
1997	4443.3	575.0	88.2	76.7	86.9	76.4	88.0	73.5	8026	91.4
1998	4497.6	575.0	89.3	78.0	86.7	77.5	89.0	75.2	7999	91.1
1999	3712.7	575.0	73.8	77.6	71.7	77.0	73.5	75.0	6570	74.8
2000	4342.6	575.0	86.3	78.4	86.1	77.8	86.0	76.0	7946	90.5
2001	4495.0	575.0	90.8	79.4	89.3	78.7	89.0	77.0	8187	93.2
2002	3407.9	575.0	68.3	78.6	68.1	77.9	67.7	76.3	6313	72.1
2003	3647.0	575.0	72.5	78.1	72.5	77.5	72.4	76.1	6595	75.3
2004	1974.6	575.0	39.7	75.7	39.6	75.1	39.2	73.7	3805	43.4
2005	2112.6	575.0	43.7	73.7	43.7	73.2	41.9	71.7	3869	44.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		1764			475	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	1416	216		745	17	
D. Inspection, maintenance or repair without refuelling				585		
E. Testing of plant systems or components				9	24	6
H. Nuclear regulatory requirements				72	90	69
J. Grid failure or grid unavailability					2	13
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				64	7	7
Z. Others		1560		22		
Subtotal	1416	3540	0	1497	618	95
Total		4956			2210	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		98
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		1
15. Reactor Cooling Systems		70
16. Steam generation systems		13
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries	1764	40
32. Feedwater and Main Steam System		37
33. Circulating Water System		142
41. Main Generator Systems		12
42. Electrical Power Supply Systems		49
Total	1764	469

GB-22A HEYSHAM-B1

Operator: BE (BRITISH ENERGY)

Contractor: NPC (NUCLEAR POWER CO. LTD.)

1. Station Details

Type: GCR

Net Reference Unit Power
at the beginning of 2005: 625.0 MW(e)

Design Net Capacity: 615.0 MW(e)

Design Discharge Burnup: 27000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4262.5 GW(e).h

Energy Availability Factor: 78.0%

Load Factor: 77.9%

Operating Factor: 83.5%

Energy Unavailability Factor: 22.0%

Total Off-line Time: 1443 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	401.7	417.5	436.8	433.7	441.7	405.6	448.2	418.5	423.7	298.0	0.0	137.0	4262.5
EAF (%)	86.6	99.4	94.1	96.3	98.0	86.7	96.7	90.2	93.9	67.8	6.7	20.4	78.0
UCF (%)	86.6	99.4	94.1	96.3	98.0	86.7	96.7	90.2	93.9	67.8	6.7	20.4	78.0
LF (%)	86.4	99.4	93.9	96.5	95.0	90.1	96.4	90.0	94.1	64.0	0.0	29.5	77.9
OF (%)	93.4	100.0	99.9	100.1	100.0	100.0	100.0	100.0	100.0	69.0	0.0	40.5	83.5
EUF (%)	13.4	0.6	5.9	3.7	2.0	13.3	3.3	9.8	6.1	32.2	93.3	79.6	22.0
PUF (%)	0.2	0.6	5.9	3.7	2.0	13.3	3.0	7.7	6.1	32.2	93.3	34.0	16.8
UCLF (%)	13.3	0.0	0.0	0.0	0.0	0.0	0.3	2.1	0.0	0.0	0.0	45.6	5.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1980 Lifetime Generation: 70382.0 GW(e).h

Date of First Criticality: 23 Jun 1988 Cumulative Energy Availability Factor: 75.3%

Date of Grid Connection: 12 Jul 1988 Cumulative Load Factor: 73.7%

Date of Commercial Operation: 01 Apr 1989 Cumulative Unit Capability Factor: 76.2%

 Cumulative Energy Unavailability Factor: 24.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	900.8	615.0	56.9	56.9	56.9	56.9	22.2	22.2	2319	35.1
1990	1487.0	615.0	27.7	40.3	27.7	40.3	27.7	25.3	3509	40.2
1991	1465.4	615.0	36.9	39.1	36.9	39.1	27.3	26.0	2786	31.9
1992	4096.0	615.0	80.2	50.2	74.8	48.7	74.8	39.2	7240	81.3
1993	4498.2	625.0	83.7	57.3	82.3	55.8	82.7	48.4	7376	84.4
1994	4181.1	625.0	79.1	61.1	75.6	59.3	76.6	53.3	7255	83.0
1995	5193.8	625.0	94.9	66.2	94.5	64.6	94.6	59.5	8286	94.3
1996	4707.4	625.0	85.7	68.7	85.0	67.2	85.7	62.9	7699	87.6
1997	4152.8	625.0	75.9	69.5	75.2	68.1	75.6	64.4	7105	80.9
1998	5019.4	625.0	91.7	71.8	90.5	70.4	91.4	67.2	8688	98.9
1999	4235.5	625.0	77.4	72.3	76.6	71.0	77.1	68.1	7212	82.1
2000	4415.3	625.0	80.4	73.0	79.9	71.8	80.4	69.2	7502	85.4
2001	5241.0	625.0	92.0	74.5	91.5	73.3	95.5	71.2	8534	97.2
2002	4414.0	625.0	80.8	75.0	80.8	73.9	80.6	71.9	7501	85.6
2003	5045.3	625.0	92.2	76.2	92.0	75.1	92.2	73.3	8444	96.4
2004	4115.7	625.0	75.3	76.1	75.3	75.1	75.2	73.4	7250	82.8
2005	4262.5	625.0	78.0	76.2	78.0	75.3	77.9	73.7	7317	83.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		432			274	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	1200			722	29	
D. Inspection, maintenance or repair without refuelling				57		
E. Testing of plant systems or components				1	9	
G. Major back-fitting, refurbishment or upgrading activities without refuelling				178		
H. Nuclear regulatory requirements				129		
J. Grid failure or grid unavailability						55
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						4
Subtotal	1200	432	0	1087	318	59
Total		1632			1464	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems		9
31. Turbine and auxiliaries		117
32. Feedwater and Main Steam System	432	113
41. Main Generator Systems		22
42. Electrical Power Supply Systems		2
Total	432	263

GB-22B HEYSHAM-B2

Operator: BE (BRITISH ENERGY)

Contractor: NPC (NUCLEAR POWER CO. LTD.)

1. Station Details

Type: GCR

Net Reference Unit Power
at the beginning of 2005: 625.0 MW(e)

Design Net Capacity: 615.0 MW(e)

Design Discharge Burnup: 27000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5056.8 GW(e).h

Energy Availability Factor: 92.3%

Load Factor: 92.4%

Operating Factor: 97.8%

Energy Unavailability Factor: 7.7%

Total Off-line Time: 196 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	450.2	334.9	429.1	448.1	434.5	351.8	459.9	431.5	412.1	443.3	445.5	416.0	5056.8
EAF (%)	96.4	80.1	92.3	99.1	93.5	78.3	99.0	92.9	91.5	95.2	99.1	89.3	92.3
UCF (%)	96.4	80.1	92.3	99.1	93.5	78.3	99.0	92.9	91.5	95.2	99.1	89.3	92.3
LF (%)	96.8	79.7	92.3	99.7	93.4	78.2	98.9	92.8	91.6	95.2	99.0	89.5	92.4
OF (%)	100.0	83.0	99.9	100.1	100.0	88.6	100.0	100.0	100.0	100.0	100.0	100.0	97.8
EUF (%)	3.6	19.9	7.7	0.9	6.5	21.7	1.0	7.1	8.5	4.8	0.9	10.7	7.7
PUF (%)	3.6	0.0	7.7	0.9	6.5	2.1	1.0	6.2	8.5	4.8	0.9	10.7	4.5
UCLF (%)	0.0	19.9	0.0	0.0	0.0	19.6	0.0	0.9	0.0	0.0	0.0	0.0	3.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1980 Lifetime Generation: 68619.5 GW(e).h

Date of First Criticality: 01 Nov 1988 Cumulative Energy Availability Factor: 74.9%

Date of Grid Connection: 11 Nov 1988 Cumulative Load Factor: 73.2%

Date of Commercial Operation: 01 Apr 1989 Cumulative Unit Capability Factor: 76.1%

 Cumulative Energy Unavailability Factor: 25.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	2590.4	615.0	74.4	74.4	74.4	74.4	63.8	63.8	4878	73.9
1990	784.0	615.0	14.9	40.5	14.9	40.5	14.6	35.8	1901	21.8
1991	2424.0	615.0	53.7	45.3	53.4	45.2	45.1	39.2	4453	51.0
1992	3486.5	615.0	66.4	51.0	64.7	50.5	63.7	45.8	6198	69.6
1993	4384.9	625.0	91.6	59.6	79.6	56.6	80.6	53.1	7125	81.6
1994	4435.3	625.0	84.0	63.9	80.7	60.9	81.2	58.1	7723	88.4
1995	4498.8	625.0	82.2	66.6	82.3	64.1	81.9	61.6	7249	82.5
1996	4265.4	625.0	78.6	68.2	78.4	65.9	77.7	63.7	7103	80.9
1997	4780.7	625.0	87.4	70.4	85.5	68.2	87.1	66.4	8021	91.3
1998	4209.7	625.0	77.0	71.1	76.2	69.0	76.7	67.5	7574	86.2
1999	2987.2	625.0	54.7	69.5	54.6	67.7	54.4	66.3	4987	56.8
2000	5001.9	625.0	91.1	71.4	90.5	69.6	91.1	68.4	8660	98.6
2001	4234.2	625.0	91.4	73.0	90.8	71.3	77.1	69.1	7103	80.9
2002	5010.3	625.0	91.5	74.3	91.5	72.8	91.5	70.7	8521	97.3
2003	4582.8	625.0	83.9	75.0	83.8	73.5	83.7	71.6	7712	88.0
2004	4244.2	625.0	77.4	75.1	77.4	73.8	77.5	72.0	7383	84.3
2005	5056.8	625.0	92.3	76.1	92.3	74.9	92.4	73.2	8564	97.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					407	
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling	683				42	
D. Inspection, maintenance or repair without refuelling	46					
E. Testing of plant systems or components					11	
G. Major back-fitting, refurbishment or upgrading activities without refuelling	26					
H. Nuclear regulatory requirements	284					
J. Grid failure or grid unavailability					8	46
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						58
Subtotal	0	0	0	1039	475	104
Total	0			1618		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		9
31. Turbine and auxiliaries		313
32. Feedwater and Main Steam System		40
41. Main Generator Systems		45
Total	0	407

GB-16A HINKLEY POINT-B1

Operator: BE (BRITISH ENERGY)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1 Station Details

Type: GCR
 Net Reference Unit Power
 at the beginning of 2005: 610.0 MW(e)
 Design Net Capacity: 625.0 MW(e)
 Design Discharge Burnup: 27000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4580.6 GW(e).h
 Energy Availability Factor: 85.2%
 Load Factor: 85.7%
 Operating Factor: 94.3%
 Energy Unavailability Factor: 14.8%
 Total Off-line Time: 503 hours

3 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	419.4	409.3	432.6	400.4	416.3	429.5	376.3	326.4	356.1	227.4	438.4	348.6	4580.6
EAF (%)	90.5	97.9	93.8	90.1	91.0	93.8	86.6	73.7	79.7	51.5	99.8	76.3	85.2
UCF (%)	90.6	97.9	93.8	90.1	91.0	93.8	86.6	73.7	79.7	51.5	99.8	76.3	85.2
LF (%)	92.4	99.9	95.3	91.2	91.7	97.8	82.9	71.9	81.1	50.1	99.8	76.8	85.7
OF (%)	100.0	100.0	100.0	100.0	100.0	100.0	99.7	85.2	100.0	47.4	100.0	100.0	94.3
EUF (%)	9.5	2.1	6.2	9.9	9.0	6.2	13.4	26.3	20.3	48.5	0.2	23.7	14.8
PUF (%)	8.1	0.0	6.0	5.8	6.3	4.9	7.8	4.3	12.0	46.3	0.2	13.6	9.7
UCLF (%)	1.3	2.1	0.2	4.2	2.7	1.3	5.6	22.1	8.3	2.2	0.0	10.1	5.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4 2005 Summary of Operation

5 Historical Summary

Date of Construction Start:	01 Sep 1967	Lifetime Generation:	104548.1 GW(e).h
Date of First Criticality:	24 Sep 1976	Cumulative Energy Availability Factor:	76.8%
Date of Grid Connection:	30 Oct 1976	Cumulative Load Factor:	77.9%
Date of Commercial Operation:	02 Oct 1978	Cumulative Unit Capability Factor:	77.8%
		Cumulative Energy Unavailability Factor:	23.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978			Data not provided							
1979	3079.8	400.0	79.4	79.4	73.5	73.5	88.1	88.1	6646	76.1
1980	2337.2	500.0	59.9	68.8	55.4	63.6	56.3	70.9	5394	61.7
1981	3441.6	520.0	78.6	72.5	74.3	67.7	74.3	72.2	7118	79.9
1982	2950.8	520.0	67.8	71.2	65.4	67.0	65.0	70.2	6000	68.7
1983	4083.0	520.0	88.3	74.9	86.6	71.2	89.9	74.4	8127	93.0
1984	3408.2	520.0	72.0	74.4	71.6	71.3	75.0	74.5	6589	75.4
1985	4263.0	520.0	90.5	76.8	82.2	72.9	93.8	77.4	8167	93.5
1986	3199.2	560.0	68.2	75.6	67.2	72.1	65.4	75.7	6110	69.9
1987	1838.0	560.0	39.6	71.1	38.8	68.0	36.9	70.9	3554	39.9
1988	2905.4	560.0	59.9	69.9	59.1	67.0	59.4	69.7	5370	61.5
1989	4195.3	560.0	85.6	71.4	85.5	68.8	85.8	71.2	7878	90.2
1990	3102.0	560.0	63.9	70.8	63.4	68.3	63.4	70.6	5732	65.6
1991	4601.9	560.0	94.3	72.7	94.3	70.5	94.1	72.5	8430	96.5
1992	3614.5	585.0	70.2	72.5	69.8	70.4	69.5	72.2	6565	73.7
1993	4843.3	585.0	94.8	74.1	94.6	72.2	94.0	73.8	8587	97.5
1994	4126.2	585.0	78.7	74.4	78.4	72.6	80.7	74.3	7342	84.0
1995	4812.5	610.0	90.1	75.5	89.6	73.7	89.8	75.3	7910	90.1
1996	4797.3	610.0	90.2	76.4	89.7	74.7	89.5	76.2	8418	95.8
1997	4185.7	610.0	78.4	76.5	78.3	74.9	78.1	76.3	7341	83.6
1998	4252.6	610.0	79.6	76.7	80.9	75.3	79.4	76.5	7740	88.1
1999	4045.2	610.0	75.8	76.6	77.0	75.4	75.5	76.4	7221	82.2
2000	3850.6	610.0	71.9	76.4	71.9	75.2	71.9	76.2	7208	82.1
2001	4802.0	610.0	87.0	76.9	87.0	75.7	89.6	76.9	8545	97.3
2002	4581.0	610.0	85.0	77.3	85.0	76.2	85.7	77.3	8021	91.6
2003	4076.4	610.0	74.8	77.2	74.8	76.1	76.3	77.2	7032	80.3
2004	4578.7	610.0	84.7	77.5	84.7	76.5	85.7	77.6	8091	92.4
2005	4580.6	610.0	85.2	77.8	85.2	76.8	85.7	77.9	8257	94.3

6 Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				16	358	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				73	26	
D. Inspection, maintenance or repair without refuelling	432			344		
E. Testing of plant systems or components					1	
H. Nuclear regulatory requirements				158		
J. Grid failure or grid unavailability					4	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						1
Subtotal	432	0	0	591	391	1
Total	432			983		

7 Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		14
12. Reactor I&C Systems		14
15. Reactor Cooling Systems		4
16. Steam generation systems		17
31. Turbine and auxiliaries		150
32. Feedwater and Main Steam System		24
41. Main Generator Systems		92
42. Electrical Power Supply Systems		48
Total	0	363

GB-16B HINKLEY POINT-B2

Operator: BE (BRITISH ENERGY)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1. Station Details

Type: GCR
 Net Reference Unit Power
 at the beginning of 2005: 610.0 MW(e)
 Design Net Capacity: 625.0 MW(e)
 Design Discharge Burnup: 27000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3357.2 GW(e).h
 Energy Availability Factor: 63.3%
 Load Factor: 62.8%
 Operating Factor: 74.7%
 Energy Unavailability Factor: 36.7%
 Total Off-line Time: 2216 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	416.3	395.7	388.8	332.3	405.6	368.8	222.8	369.3	387.2	19.9	0.0	50.4	3357.2
EAF (%)	91.7	96.5	85.8	74.7	91.0	83.2	51.1	81.9	85.4	11.8	6.7	2.7	63.3
UCF (%)	91.7	96.5	85.8	74.8	91.0	83.2	51.1	81.9	85.4	11.8	6.7	2.7	63.3
LF (%)	91.7	96.5	85.7	75.8	89.4	84.0	49.1	81.4	88.2	4.4	0.0	11.1	62.8
OF (%)	100.0	100.0	100.0	87.5	100.0	100.0	57.3	100.0	100.0	22.3	0.0	31.6	74.7
EUF (%)	8.3	3.5	14.2	25.3	9.0	16.8	48.9	18.1	14.6	88.2	93.3	97.3	36.7
PUF (%)	8.3	3.5	8.0	10.0	7.3	15.3	7.4	12.7	11.4	88.2	93.3	67.9	27.9
UCLF (%)	0.0	0.0	6.2	15.3	1.7	1.5	41.5	5.4	3.1	0.0	0.0	29.5	8.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Sep 1967	Lifetime Generation:	100107.6 GW(e).h
Date of First Criticality:	01 Feb 1976	Cumulative Energy Availability Factor:	74.0%
Date of Grid Connection:	05 Feb 1976	Cumulative Load Factor:	72.6%
Date of Commercial Operation:	27 Sep 1976	Cumulative Unit Capability Factor:	75.2%
		Cumulative Energy Unavailability Factor:	26.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976			Data not provided							
1977	1044.0	400.0	74.6	74.6	74.6	74.6	29.9	29.9	2756	31.5
1978			Data not provided							
1979	1499.7	400.0	44.0	59.3	38.2	56.4	42.9	36.4	3512	40.2
1980	3008.9	500.0	71.3	63.8	69.3	61.2	72.5	49.9	6390	73.1
1981	2488.8	520.0	57.1	61.8	54.7	59.3	53.8	51.0	5054	56.8
1982	3155.1	520.0	73.6	64.5	69.8	61.6	69.5	55.1	6834	78.2
1983	3454.5	520.0	75.6	66.5	74.1	63.9	76.0	58.9	6839	78.3
1984	4393.5	520.0	89.6	70.1	89.4	67.8	96.7	64.8	8228	94.2
1985	3229.9	520.0	66.7	69.6	66.7	67.7	71.1	65.6	5950	68.1
1986	3497.3	560.0	81.2	71.1	75.1	68.6	72.5	66.5	7257	84.2
1987	2971.1	560.0	68.3	70.7	60.6	67.7	59.6	65.7	6333	71.1
1988	4268.2	560.0	91.1	72.8	86.6	69.6	87.2	67.9	8467	96.9
1989	2484.6	560.0	65.6	72.1	65.3	69.2	50.8	66.3	4896	56.0
1990	4463.5	560.0	92.4	73.8	91.2	71.1	91.2	68.4	8565	98.0
1991	2353.5	560.0	57.4	72.6	57.4	70.0	48.1	66.8	4432	50.7
1992	3902.0	585.0	76.6	72.9	76.3	70.5	75.1	67.4	7225	81.1
1993	3743.0	610.0	71.7	72.8	71.4	70.5	71.7	67.8	6575	75.3
1994	4852.2	610.0	91.5	74.0	91.1	71.9	91.1	69.3	8602	98.5
1995	4518.1	610.0	84.6	74.7	84.6	72.7	84.3	70.3	7411	84.4
1996	3119.9	610.0	58.9	73.8	59.1	71.9	58.2	69.6	5615	63.9
1997	4512.9	610.0	84.5	74.4	85.0	72.7	84.2	70.4	7958	90.6
1998	4738.9	610.0	88.7	75.1	88.3	73.5	88.4	71.3	8641	98.4
1999	4082.3	610.0	76.9	75.2	75.8	73.6	76.2	71.6	7402	84.3
2000	4189.4	610.0	78.9	75.4	78.9	73.9	78.2	71.9	7851	89.4
2001	4772.4	610.0	84.1	75.8	84.1	74.3	89.1	72.7	8406	95.7
2002	3257.3	610.0	61.2	75.2	61.2	73.8	61.0	72.2	6163	70.4
2003	4619.5	610.0	86.5	75.6	86.5	74.3	86.4	72.8	8575	97.9
2004	4150.5	610.0	77.7	75.7	77.7	74.4	77.7	73.0	8163	93.2
2005	3357.2	610.0	63.3	75.2	63.3	74.0	62.8	72.6	6544	74.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					550	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	1944	120		47	15	
D. Inspection, maintenance or repair without refuelling				161		
E. Testing of plant systems or components				4	12	
H. Nuclear regulatory requirements				45	71	
J. Grid failure or grid unavailability					3	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					5	
Z. Others					13	
Subtotal	1944	120	0	257	672	0
Total		2064			929	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		35
12. Reactor I&C Systems		18
16. Steam generation systems		120
31. Turbine and auxiliaries		154
32. Feedwater and Main Steam System		151
33. Circulating Water System		2
41. Main Generator Systems		48
XX. Miscellaneous Systems		3
Total	0	531

GB-17A HUNTERSTON-B1

Operator: BE (BRITISH ENERGY)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1. Station Details

Type: GCR
 Net Reference Unit Power
 at the beginning of 2005: 595.0 MW(e)
 Design Net Capacity: 624.0 MW(e)
 Design Discharge Burnup: 21000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4096.4 GW(e).h
 Energy Availability Factor: 78.4%
 Load Factor: 78.6%
 Operating Factor: 93.7%
 Energy Unavailability Factor: 21.6%
 Total Off-line Time: 553 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	336.0	121.0	354.2	387.3	357.7	350.6	331.8	386.1	223.3	443.3	388.5	416.5	4096.4
EAF (%)	75.9	31.3	80.2	89.8	82.3	78.4	77.5	84.5	52.5	99.9	90.7	93.7	78.4
UCF (%)	75.9	31.3	80.2	89.8	82.3	82.7	77.5	84.5	52.5	99.9	90.7	93.7	78.8
LF (%)	75.9	30.3	80.0	90.5	80.8	81.9	75.0	87.2	52.1	100.0	90.7	94.1	78.6
OF (%)	98.3	50.9	100.0	100.1	100.0	100.0	100.0	100.0	70.8	99.9	100.0	100.0	93.7
EUF (%)	24.1	68.7	19.8	10.2	17.7	21.6	22.5	15.5	47.5	0.1	9.3	6.3	21.6
PUF (%)	7.6	0.0	2.3	2.5	6.4	11.2	3.0	7.5	42.7	0.1	5.5	6.3	7.9
UCLF (%)	16.5	68.7	17.5	7.8	11.3	6.1	19.5	8.0	4.8	0.0	3.9	0.0	13.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1967
Date of First Criticality: 31 Jan 1976
Date of Grid Connection: 06 Feb 1976
Date of Commercial Operation: 06 Feb 1976

Lifetime Generation: 104268.6 GW(e).h
Cumulative Energy Availability Factor: 72.4%
Cumulative Load Factor: 70.7%
Cumulative Unit Capability Factor: 79.1%
Cumulative Energy Unavailability Factor: 27.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	1349.0	459.0	100.0	100.0	36.0	36.0	35.7	35.7	4293	52.2
1977	1709.2	500.0	100.0	100.0	40.1	38.2	39.1	37.5	4313	49.4
1978	2158.4	500.0	100.0	100.0	49.4	42.1	49.4	41.7	5375	61.5
1979	2250.0	500.0	100.0	100.0	52.2	44.7	51.5	44.2	5259	60.2
1980	1486.0	500.0	34.5	86.5	34.4	42.6	34.0	42.1	3750	42.9
1981	1794.8	500.0	40.8	78.6	40.8	42.3	40.3	41.8	3941	44.3
1982	3484.1	515.0	77.3	78.4	77.3	47.5	77.4	47.1	7408	84.8
1983	2912.0	520.0	63.1	76.4	63.1	49.5	64.1	49.3	6107	69.9
1984	4214.0	550.0	85.5	77.5	85.5	53.9	87.7	54.0	8080	92.5
1985	3644.2	575.0	71.1	76.8	71.1	55.8	72.5	56.1	6655	76.2
1986	4571.2	575.0	89.1	78.0	89.1	59.2	91.0	59.6	8268	94.6
1987	3268.4	575.0	63.7	76.7	63.7	59.6	63.8	60.0	6358	71.4
1988	4492.3	575.0	89.2	77.8	89.2	62.1	89.4	62.5	8568	98.1
1989	2959.7	575.0	58.2	76.2	58.2	61.8	58.9	62.2	5467	62.6
1990	4744.1	575.0	92.7	77.4	92.7	64.0	94.4	64.5	8585	98.3
1991	2033.8	575.0	40.1	74.9	40.1	62.4	40.5	62.9	3827	43.8
1992	4315.7	575.0	92.0	76.0	84.4	63.8	84.3	64.3	8771	98.5
1993	2928.9	575.0	59.5	75.0	58.2	63.5	58.3	63.9	5581	63.9
1994	4698.1	585.0	92.8	76.0	92.4	65.1	92.3	65.5	8545	97.8
1995	3830.0	585.0	74.2	75.9	74.2	65.6	72.5	65.9	6917	76.6
1996	1643.7	585.0	98.5	77.1	98.5	67.3	32.0	64.2	2839	32.3
1997	3834.0	595.0	73.6	76.9	73.6	67.6	73.4	64.6	7035	80.1
1998	4835.4	595.0	92.8	77.7	92.8	68.8	92.5	66.0	8584	97.7
1999	4811.5	595.0	92.3	78.3	92.3	69.9	92.1	67.1	8591	97.8
2000	4035.6	595.0	77.2	78.3	77.2	70.2	77.2	67.6	7497	85.3
2001	5030.4	595.0	86.6	78.6	86.6	70.9	96.2	68.7	8598	97.9
2002	4678.5	595.0	89.1	79.0	89.1	71.6	89.8	69.6	8356	95.4
2003	3936.5	595.0	74.7	78.9	74.6	71.7	75.5	69.8	7225	82.5
2004	4522.7	595.0	85.7	79.1	85.5	72.2	86.8	70.4	8271	94.4
2005	4096.4	595.0	78.8	79.1	78.4	72.4	78.6	70.7	8207	93.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		528			327	4
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	290				7	
D. Inspection, maintenance or repair without refuelling	797					
E. Testing of plant systems or components	88				8	
H. Nuclear regulatory requirements	35					
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	2				13	
Subtotal	0	528	0	1212	358	5
Total		528			1575	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		25
13. Reactor Auxiliary Systems		6
14. Safety Systems		1
15. Reactor Cooling Systems		65
16. Steam generation systems	528	9
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries		90
32. Feedwater and Main Steam System		35
33. Circulating Water System		6
35. All other I&C Systems		2
41. Main Generator Systems		46
42. Electrical Power Supply Systems		31
XX. Miscellaneous Systems		4
Total	528	321

GB-17B HUNTERSTON-B2

Operator: BE (BRITISH ENERGY)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1. Station Details

Type: GCR
 Net Reference Unit Power
 at the beginning of 2005: 595.0 MW(e)
 Design Net Capacity: 624.0 MW(e)
 Design Discharge Burnup: 21000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3633.6 GW(e).h
 Energy Availability Factor: 69.4%
 Load Factor: 69.7%
 Operating Factor: 80.1%
 Energy Unavailability Factor: 30.6%
 Total Off-line Time: 1743 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	404.8	341.3	393.2	319.5	345.3	272.3	0.0	0.0	321.1	432.0	396.0	408.1	3633.6
EAF (%)	91.1	85.3	88.9	71.4	82.0	53.4	9.7	9.7	64.6	95.8	93.0	89.8	69.4
UCF (%)	91.1	85.3	88.9	71.4	82.5	59.9	9.7	9.7	64.6	95.8	93.0	89.9	70.0
LF (%)	91.4	85.4	88.8	74.7	78.0	63.6	0.0	0.0	74.9	97.5	92.4	92.2	69.7
OF (%)	100.0	100.0	100.0	93.7	97.7	79.4	0.0	1.1	92.8	99.9	100.0	100.0	80.1
EUF (%)	8.9	14.7	11.1	28.6	18.0	46.6	90.3	90.3	35.4	4.2	7.0	10.2	30.6
PUF (%)	6.8	8.1	0.0	7.5	8.9	32.9	90.3	43.1	10.3	4.2	6.7	10.2	19.2
UCLF (%)	2.1	6.7	11.1	21.1	8.6	7.3	0.0	47.2	25.2	0.0	0.4	0.0	10.8
XUF (%)	0.0	0.0	0.0	0.0	0.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1967
Date of First Criticality: 27 Mar 1977
Date of Grid Connection: 31 Mar 1977
Date of Commercial Operation: 31 Mar 1977

Lifetime Generation: 98490.5 GW(e).h
Cumulative Energy Availability Factor: 71.5%
Cumulative Load Factor: 68.8%
Cumulative Unit Capability Factor: 81.2%
Cumulative Energy Unavailability Factor: 28.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	1047.7	500.0	100.0	100.0	29.2	29.2	28.4	28.4	3071	41.7
1978	0.0	500.0	100.0	100.0	0.0	13.4	0.0	13.0	0	0.0
1979	0.0	500.0	100.0	100.0	0.0	8.7	0.0	8.4	0	0.0
1980	2544.0	500.0	100.0	100.0	58.9	21.7	58.2	21.4	5147	58.9
1981	3019.9	500.0	68.2	93.3	68.2	31.5	67.8	31.1	7219	81.1
1982	2706.2	515.0	59.8	87.5	59.8	36.4	60.1	36.2	5596	64.0
1983	4153.0	520.0	100.0	89.4	88.4	44.2	91.4	44.5	8524	97.6
1984	3287.0	550.0	67.7	86.4	67.7	47.4	68.4	47.7	6365	72.9
1985	4507.7	575.0	88.7	86.7	88.7	52.6	89.7	53.0	8303	95.0
1986	3616.1	575.0	70.8	84.9	70.8	54.6	72.0	55.1	6496	74.4
1987	4623.4	575.0	90.8	85.5	90.5	58.3	90.3	58.7	8710	97.8
1988	3115.5	575.0	61.3	83.3	61.3	58.5	62.0	59.0	5754	65.9
1989	4728.0	575.0	93.5	84.2	93.5	61.5	94.1	61.9	8643	98.9
1990	3231.3	575.0	63.8	82.6	63.8	61.6	64.3	62.1	5858	67.1
1991	4727.8	575.0	94.7	83.5	94.0	64.0	94.1	64.4	8707	99.7
1992	1969.7	575.0	39.2	80.5	39.2	62.3	38.5	62.6	3733	41.9
1993	4322.1	575.0	86.7	80.8	86.1	63.8	86.0	64.1	8128	93.0
1994	3784.7	585.0	74.9	80.5	74.7	64.4	74.4	64.7	6949	79.5
1995	4671.3	585.0	90.1	81.1	90.1	65.9	87.9	66.1	8315	91.6
1996	1276.6	585.0	91.9	81.6	91.9	67.3	24.8	63.9	2377	27.1
1997	4559.7	595.0	87.5	81.9	87.5	68.3	87.2	65.1	8200	93.4
1998	4518.0	595.0	86.7	82.2	86.7	69.2	86.4	66.1	8149	92.8
1999	4102.0	595.0	78.8	82.0	78.8	69.7	78.5	66.7	7302	83.1
2000	3241.6	595.0	62.0	81.1	62.0	69.3	62.0	66.5	6411	73.0
2001	3785.0	595.0	83.7	81.2	83.7	70.0	72.4	66.7	6485	73.8
2002	4413.1	595.0	83.1	81.3	83.1	70.5	84.7	67.5	7721	88.1
2003	4627.3	595.0	87.8	81.6	87.5	71.2	88.8	68.3	8381	95.7
2004	4238.7	595.0	83.7	81.6	83.4	71.6	81.3	68.8	7799	89.0
2005	3633.6	595.0	70.0	81.2	69.4	71.5	69.7	68.8	7017	80.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				95	915	4
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling	1224	432		151	3	
D. Inspection, maintenance or repair without refuelling				707		
E. Testing of plant systems or components				1	2	
H. Nuclear regulatory requirements					0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				1	1	0
Subtotal	1224	432	0	955	928	4
Total	1656			1887		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		8
14. Safety Systems		0
15. Reactor Cooling Systems		38
16. Steam generation systems		13
31. Turbine and auxiliaries		59
32. Feedwater and Main Steam System		829
33. Circulating Water System		4
35. All other I&C Systems		1
41. Main Generator Systems		13
42. Electrical Power Supply Systems		10
XX. Miscellaneous Systems		0
Total	0	981

GB-11A OLDBURY-A1

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1. Station Details

Type: GCR
Net Reference Unit Power at the beginning of 2005: 217.0 MW(e)
Design Net Capacity: 300.0 MW(e)
Design Discharge Burnup: 5430 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 744.6 GW(e).h
Energy Availability Factor: 39.2%
Load Factor: 39.2%
Operating Factor: 45.6%
Energy Unavailability Factor: 60.8%
Total Off-line Time: 4763 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	0.0	0.0	0.0	0.0	0.0	43.0	102.0	35.5	138.8	143.1	138.6	143.5	744.6
EAF (%)	0.0	0.0	0.0	-0.1	0.0	27.6	63.2	22.0	88.8	88.7	88.7	88.9	39.2
UCF (%)	0.0	0.0	0.0	-0.1	0.0	27.6	63.2	22.0	88.8	88.7	88.7	88.9	39.2
LF (%)	0.0	0.0	0.0	0.0	0.0	27.6	63.2	22.0	88.8	88.5	88.7	88.9	39.2
OF (%)	0.0	0.0	0.0	0.0	0.0	34.6	81.3	28.9	100.0	99.9	100.0	100.0	45.6
EUF (%)	100.0	100.0	100.0	100.1	100.0	72.4	36.8	78.0	11.2	11.3	11.3	11.1	60.8
PUF (%)	100.0	100.0	100.0	100.1	100.0	65.4	0.0	0.0	0.0	0.0	0.0	0.0	46.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	7.0	36.8	78.0	11.2	11.3	11.3	11.1	14.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 THE REACTOR RETURNED TO SERVICE ON 20 JUNE AFTER RESOLVING THE TWO SAFETY CASE ISSUES FROM 2004.THERE WAS ONE MANUAL OUTAGE OF ABOUT 28 DAYS DURATION COMMENCING ON 26 JULY DUE TO BOILER THERMOCOUPLE INSPECTION AND REPAIRS.

5. Historical Summary

Date of Construction Start: 01 May 1962
Date of First Criticality: 01 Aug 1967
Date of Grid Connection: 07 Nov 1967
Date of Commercial Operation: 31 Dec 1967

Lifetime Generation: 57019.0 GW(e).h
Cumulative Energy Availability Factor: 79.8%
Cumulative Load Factor: 77.4%
Cumulative Unit Capability Factor: 88.5%
Cumulative Energy Unavailability Factor: 20.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1967	0.0	217.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1968	0.0	217.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1969	0.0	217.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	2546.0	633.0	100.0	100.0	45.9	68.5	45.9	26.8	0	0.0
1971	3120.9	423.0	100.0	100.0	86.9	73.6	83.8	42.8	8759	99.4
1972	2872.9	420.0	100.0	100.0	76.0	74.2	78.3	50.5	8736	100.0
1973	2530.4	400.0	63.3	93.7	63.3	72.3	72.4	54.3	8704	99.6
1974	2710.0	400.0	100.0	94.6	74.9	72.7	77.6	57.7	8731	99.9
1975	2873.0	407.0	100.0	95.3	78.8	73.5	80.8	60.7	8693	99.5
1976	3017.0	416.0	100.0	95.9	80.2	74.3	81.5	63.1	8714	97.9
1977	3110.0	416.0	100.0	96.3	85.5	75.4	85.6	65.5	8736	100.0
1978	3067.0	416.0	100.0	96.7	84.5	76.3	84.4	67.3	8736	100.0
1979	3184.0	416.0	100.0	96.9	88.1	77.3	87.6	69.0	8736	100.0
1980	3296.0	416.0	87.5	96.2	86.2	78.0	90.7	70.7	8736	100.0
1981	3376.0	416.0	87.4	95.5	85.5	78.6	91.1	72.3	8904	100.0
1982	3434.0	416.0	89.2	95.1	86.0	79.1	94.5	73.8	8736	100.0
1983	3013.0	434.0	77.8	94.0	77.4	79.0	79.5	74.2	8566	98.1
1984	3041.0	434.0	77.7	92.9	77.7	78.9	80.2	74.6	8736	100.0
1985	3322.1	434.0	83.2	92.4	83.2	79.2	87.6	75.3	8701	99.6
1986	3308.6	434.0	87.0	92.1	85.0	79.5	87.3	76.0	8650	99.0
1987	3222.9	434.0	84.1	91.6	82.9	79.7	83.4	76.4	8904	100.0
1988	3375.2	434.0	90.8	91.6	85.9	80.0	89.0	77.0	8530	97.6
1989	2915.2	434.0	86.5	91.4	82.0	80.1	76.9	77.0	8644	98.9
1990	2915.1	434.0	76.1	90.7	76.1	79.9	76.9	77.0	8713	99.7
1991	3184.2	434.0	84.3	90.4	84.3	80.1	84.0	77.3	8736	100.0
1992	3412.1	434.0	88.6	90.3	88.6	80.4	88.3	77.8	8857	99.5
1993	3541.3	434.0	92.9	90.4	92.5	80.9	93.4	78.4	8736	100.0
1994	3486.8	434.0	91.6	90.5	91.6	81.3	92.0	78.9	8318	95.2
1995	Data not provided									
1996	"									
1997	"									
1998	"									
1999	"									
2000	"									
2001	"									
2002	"									
2003	"									
2004	723.8	217.0	37.8	89.5	37.8	80.5	38.1	78.1	3430	39.2
2005	744.6	217.0	39.2	88.5	39.2	79.8	39.2	77.4	3997	45.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		668		1	264	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				31		
D. Inspection, maintenance or repair without refuelling	3783			525		
E. Testing of plant systems or components	312			121		0
H. Nuclear regulatory requirements				34		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						4
Subtotal	4095	668	0	712	266	4
Total	4763			982		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
12. Reactor I&C Systems		9
15. Reactor Cooling Systems		36
16. Steam generation systems	668	
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		11
41. Main Generator Systems		163
42. Electrical Power Supply Systems		6
Total	668	257

GB-11B OLDBURY-A2

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: TNPG (THE NUCLEAR POWER GROUP LTD.)

1. Station Details

Type: GCR
Net Reference Unit Power at the beginning of 2005: 217.0 MW(e)
Design Net Capacity: 300.0 MW(e)
Design Discharge Burnup: 5470 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 776.5 GW(e).h
Energy Availability Factor: 40.9%
Load Factor: 40.9%
Operating Factor: 42.7%
Energy Unavailability Factor: 59.1%
Total Off-line Time: 5017 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	158.3	142.5	157.7	146.7	148.3	22.9	0.0	0.0	0.0	0.0	0.0	0.0	776.5
EAF (%)	98.1	97.7	97.7	93.9	91.9	14.7	0.0	0.0	0.0	0.1	0.0	0.0	40.9
UCF (%)	98.1	97.7	97.7	93.9	91.9	14.7	0.0	0.0	0.0	0.1	0.0	0.0	40.9
LF (%)	98.1	97.7	97.7	94.0	91.9	14.7	0.0	0.0	0.0	0.0	0.0	0.0	40.9
OF (%)	100.0	100.0	100.0	100.1	100.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0	42.7
EUF (%)	1.9	2.3	2.3	6.1	8.1	85.3	100.0	100.0	100.0	99.9	100.0	100.0	59.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	83.5	100.0	100.0	100.0	99.9	100.0	100.0	57.3
UCLF (%)	1.9	2.3	2.3	6.1	8.1	1.9	0.0	0.0	0.0	0.0	0.0	0.0	1.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 A STATUTORY OUTAGE COMMENCED ON 05 JUNE. HOWEVER, THE REACTOR REMAINED OUT OF SERVICE FOR THE REST OF 2005 DUE TO A SAFETY CASE ISSUE (GRAPHITE DEPLETION).

5. Historical Summary

Date of Construction Start:	01 May 1962	Lifetime Generation:	60087.0 GW(e).h
Date of First Criticality:	01 Dec 1967	Cumulative Energy Availability Factor:	64.6%
Date of Grid Connection:	06 Apr 1968	Cumulative Load Factor:	64.8%
Date of Commercial Operation:	30 Sep 1968	Cumulative Unit Capability Factor:	64.6%
		Cumulative Energy Unavailability Factor:	35.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1968			Data not provided							
1969										
1970										
1971										
1972										
1973										
1974										
1975										
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1999										
2000										
2001										
2002										
2003										
2004	1686.4	217.0	88.4	88.4	88.4	88.4	88.7	88.7	8187	93.5
2005	776.5	217.0	40.9	64.6	40.9	64.6	40.9	64.8	3743	42.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure						
D. Inspection, maintenance or repair without refuelling	5017			403	56	1
H. Nuclear regulatory requirements				77		
Subtotal	5017	0	0	480	56	1
Total	5017			537		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		12
15. Reactor Cooling Systems		4
16. Steam generation systems		5
17. Safety I&C Systems (excluding reactor I&C)		6
21. Fuel Handling and Storage Facilities		7
31. Turbine and auxiliaries		6
32. Feedwater and Main Steam System		4
41. Main Generator Systems		1
42. Electrical Power Supply Systems		4
Total	0	52

GB-10A SIZEWELL-A1

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: EE/B&W/T (THE ENGLISH ELECTRIC CO. LTD / BABCOCK & WILCOX CO. / TAYLOR WOODROW CONSTRUCTION

1. Station Details

Type: GCR
Net Reference Unit Power
at the beginning of 2005: 210.0 MW(e)
Design Net Capacity: 290.0 MW(e)
Design Discharge Burnup: 4950 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1730.8 GW(e).h
Energy Availability Factor: 94.1%
Load Factor: 94.1%
Operating Factor: 100.0%
Energy Unavailability Factor: 5.9%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	154.9	140.8	152.7	141.5	144.2	138.2	145.6	140.4	138.1	143.6	142.8	148.1	1730.8
EAF (%)	99.1	99.8	97.8	93.6	92.3	91.4	93.2	89.9	91.3	91.9	94.5	94.8	94.1
UCF (%)	99.1	99.8	98.5	93.6	92.3	92.1	93.2	89.9	94.7	92.8	95.3	95.5	94.7
LF (%)	99.1	99.8	97.8	93.7	92.3	91.4	93.2	89.9	91.3	91.8	94.5	94.8	94.1
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0
EUF (%)	0.9	0.2	2.2	6.4	7.7	8.6	6.8	10.1	8.7	8.1	5.5	5.2	5.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.9	0.2	1.5	6.4	7.7	7.9	6.8	10.1	5.3	7.2	4.7	4.5	5.3
XUF (%)	0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	3.3	0.9	0.8	0.7	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 THE REACTOR WAS ALWAYS CRITICAL AND ON LINE.

5. Historical Summary

Date of Construction Start: 01 Apr 1961
Date of First Criticality: 01 Jun 1965
Date of Grid Connection: 21 Jan 1966
Date of Commercial Operation: 25 Mar 1966

Lifetime Generation: 55131.0 GW(e).h
Cumulative Energy Availability Factor: 77.4%
Cumulative Load Factor: 70.2%
Cumulative Unit Capability Factor: 83.4%
Cumulative Energy Unavailability Factor: 22.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1966	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1967	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1968	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1969	0.0	210.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	3630.0	652.0	100.0	100.0	63.6	83.7	63.6	28.4	0	0.0
1971	3868.6	490.0	100.0	100.0	95.7	86.7	90.1	43.9	8690	99.2
1972	3265.4	490.0	100.0	100.0	74.5	84.3	75.9	50.4	0	0.0
1973	2910.3	420.0	80.7	97.2	80.7	83.7	79.3	54.6	7975	91.3
1974	3116.0	420.0	100.0	97.5	84.1	83.8	84.9	58.5	8719	99.8
1975	3424.0	420.0	100.0	97.8	91.9	84.7	93.3	62.4	8675	99.3
1976	3403.0	420.0	100.0	98.0	89.9	85.2	91.0	65.4	8904	100.0
1977	3324.0	420.0	100.0	98.2	90.1	85.7	90.6	67.7	8736	100.0
1978	3372.0	420.0	100.0	98.4	90.9	86.1	91.9	69.8	8736	100.0
1979	3310.0	420.0	90.9	97.8	90.9	86.5	90.2	71.3	8736	100.0
1980	2792.0	420.0	77.5	96.3	77.5	85.8	76.1	71.7	8694	99.5
1981	2131.0	420.0	55.3	93.5	55.3	83.7	57.0	70.7	8735	98.1
1982	1889.0	420.0	56.1	91.2	56.1	82.0	51.5	69.5	8659	99.1
1983	3151.0	420.0	92.4	91.2	92.4	82.6	85.9	70.4	8736	100.0
1984	1845.0	420.0	49.2	88.9	49.2	80.8	50.3	69.3	7256	83.1
1985	2688.8	420.0	78.6	88.3	71.1	80.2	73.3	69.5	8691	99.5
1986	1990.5	420.0	58.8	86.8	53.2	78.9	54.3	68.8	8660	99.1
1987	2760.0	420.0	80.2	86.5	73.1	78.6	73.8	69.0	8904	100.0
1988	2672.6	420.0	76.1	86.0	72.0	78.3	72.8	69.2	8530	97.6
1989	2595.0	420.0	70.7	85.4	70.0	77.9	70.7	69.2	8433	96.5
1990	2691.7	420.0	72.9	84.9	72.9	77.7	73.4	69.4	8016	91.8
1991	2746.4	420.0	78.7	84.6	78.7	77.8	74.9	69.6	8655	99.1
1992	2266.8	420.0	67.1	83.9	66.9	77.3	60.6	69.3	8077	90.7
1993	3023.4	420.0	84.8	83.9	82.0	77.5	82.4	69.8	8730	99.9
1994	3375.7	420.0	91.7	84.2	91.7	78.0	92.0	70.6	8125	93.0
1995	Data not provided									
1996	"									
1997	"									
1998	"									
1999	"									
2000	"									
2001	"									
2002	"									
2003	"									
2004	526.5	210.0	28.3	83.2	28.3	77.1	28.6	69.8	2507	28.6
2005	1730.8	210.0	94.7	83.4	94.1	77.4	94.1	70.2	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				20	427	
B. Refuelling without a maintenance					2	
D. Inspection, maintenance or repair without refuelling	561					
E. Testing of plant systems or components	7				1	
F. Major back-fitting, refurbishment or upgrading activities with refuelling	41					
G. Major back-fitting, refurbishment or upgrading activities without refuelling	96				0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						12
Subtotal	0	0	0	725	430	12
Total	0			1167		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		67
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		21
14. Safety Systems		4
15. Reactor Cooling Systems		65
16. Steam generation systems		5
21. Fuel Handling and Storage Facilities		3
31. Turbine and auxiliaries		13
32. Feedwater and Main Steam System		25
33. Circulating Water System		17
41. Main Generator Systems		88
42. Electrical Power Supply Systems		44
XX. Miscellaneous Systems		6
Total	0	370

GB-10B SIZEWELL-A2

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: EE/B&W/T (THE ENGLISH ELECTRIC CO. LTD / BABCOCK & WILCOX CO. / TAYLOR WOODROW CONSTRUCTION

1. Station Details

Type: GCR
Net Reference Unit Power
at the beginning of 2005: 210.0 MW(e)
Design Net Capacity: 290.0 MW(e)
Design Discharge Burnup: 4960 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 1521.2 GW(e).h
Energy Availability Factor: 82.7%
Load Factor: 82.7%
Operating Factor: 85.2%
Energy Unavailability Factor: 17.3%
Total Off-line Time: 1298 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	155.7	141.0	153.4	150.8	152.1	142.7	20.4	14.0	139.6	150.9	147.6	153.0	1521.2
EAF (%)	99.7	99.9	98.2	99.8	97.3	94.4	13.0	8.9	92.3	96.6	97.6	97.9	82.7
UCF (%)	99.7	99.9	98.7	99.8	97.4	95.2	13.1	8.9	95.8	97.4	98.5	98.6	83.3
LF (%)	99.7	99.9	98.2	99.9	97.3	94.4	13.0	8.9	92.3	96.5	97.6	97.9	82.7
OF (%)	100.0	100.0	100.0	100.1	100.0	99.4	15.6	10.5	100.0	99.9	100.0	100.0	85.2
EUF (%)	0.3	0.1	1.8	0.2	2.7	5.6	87.0	91.1	7.7	3.4	2.4	2.1	17.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	72.2	89.5	0.0	0.0	0.0	0.0	13.7
UCLF (%)	0.3	0.1	1.3	0.3	2.7	4.8	14.8	1.6	4.2	2.6	1.6	1.4	3.0
XUF (%)	0.0	0.0	0.6	0.0	0.0	0.8	0.0	0.0	3.5	0.8	0.8	0.7	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 THERE WAS ONE STATUTORY OUTAGE AND ONE MANUAL SCRAM. THE STATUTORY OUTAGE COMMENCED ON 09 JULY 2005 WITH A DURATION OF ABOUT 50 DAYS. THE MANUAL SCRAM WAS FOR ABOUT FOUR DAYS DURATION COMMENCING ON 30 JUNE AND DUE TO LOSS OF REACTIVITY WHILE RETURNING CIRCUIT BACK TO SERVICE.

5. Historical Summary

Date of Construction Start:	01 Apr 1961	Lifetime Generation:	51625.0 GW(e).h
Date of First Criticality:	01 Dec 1965	Cumulative Energy Availability Factor:	87.7%
Date of Grid Connection:	09 Apr 1966	Cumulative Load Factor:	87.8%
Date of Commercial Operation:	15 Sep 1966	Cumulative Unit Capability Factor:	88.8%
		Cumulative Energy Unavailability Factor:	12.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1966			Data not provided							
1967										
1968										
1969										
1970										
1971										
1972										
1973										
1974										
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2002										
2003										
2004	1710.6	210.0	94.3	94.3	92.7	92.7	93.0	93.0	8608	98.3
2005	1521.2	210.0	83.3	88.8	82.7	87.7	82.7	87.8	7462	85.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					226	
D. Inspection, maintenance or repair without refuelling	1203			611	1	
E. Testing of plant systems or components						0
H. Nuclear regulatory requirements				36		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	6
S. Fuel management limitation (including high flux tilt, stretch out or coast-down operation)		95				
Subtotal	1203	95	0	647	228	6
Total		1298			881	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		6
15. Reactor Cooling Systems		26
16. Steam generation systems		16
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		6
32. Feedwater and Main Steam System		8
33. Circulating Water System		5
41. Main Generator Systems		7
42. Electrical Power Supply Systems		4
Total	0	81

GB-24 SIZEWELL-B

Operator: BE (BRITISH ENERGY)

Contractor: PPC (PWR POWER PROJECTS)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1188.0 MW(e)

Design Net Capacity: 1188.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8696.3 GW(e).h

Energy Availability Factor: 83.9%

Load Factor: 83.6%

Operating Factor: 85.3%

Energy Unavailability Factor: 16.1%

Total Off-line Time: 1284 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	876.5	790.9	692.2	0.0	276.4	838.1	873.7	875.1	848.9	882.2	855.4	886.8	8696.3
EAF (%)	99.2	99.1	78.6	-0.1	36.0	97.7	99.0	99.1	99.1	99.7	99.9	100.0	83.9
UCF (%)	99.2	99.1	78.6	-0.1	36.0	97.7	99.0	99.1	99.1	99.7	99.9	100.0	83.9
LF (%)	99.2	99.1	78.3	0.0	31.3	98.0	98.8	99.0	99.2	99.7	100.0	100.3	83.6
OF (%)	100.0	100.0	80.2	0.0	44.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	85.3
EUF (%)	0.8	0.9	21.4	100.1	64.0	2.3	1.0	0.9	0.9	0.3	0.1	0.0	16.1
PUF (%)	0.8	0.9	21.4	100.1	10.6	2.3	1.0	0.9	0.9	0.3	0.1	0.0	11.5
UCLF (%)	0.0	0.0	0.0	0.0	53.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 18 Jul 1988

Date of First Criticality: 31 Jan 1995

Date of Grid Connection: 14 Feb 1995

Date of Commercial Operation: 22 Sep 1995

Lifetime Generation: 75587.3 GW(e).h

Cumulative Energy Availability Factor: 85.1%

Cumulative Load Factor: 82.5%

Cumulative Unit Capability Factor: 85.2%

Cumulative Energy Unavailability Factor: 14.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1995	0.0	1188.0	100.0	100.0	99.6	99.6	0.0	0.0	0	0.0
1996	8488.5	1188.0	81.3	86.0	81.4	85.9	81.3	61.0	7367	83.9
1997	8469.8	1188.0	81.4	84.0	81.5	84.0	81.2	69.6	6992	79.6
1998	10123.1	1188.0	97.3	88.0	97.4	88.0	97.0	77.9	8705	99.1
1999	7959.0	1188.0	76.5	85.4	76.5	85.4	76.3	77.5	7134	81.2
2000	8527.2	1188.0	81.7	84.7	81.6	84.7	81.7	78.3	7612	86.7
2001	9198.0	1188.0	77.4	83.5	77.2	83.5	88.1	79.8	7784	88.6
2002	9195.0	1188.0	88.9	84.3	88.5	84.2	88.4	81.0	7862	89.7
2003	8854.2	1188.0	89.3	84.9	88.7	84.7	85.1	81.5	7613	86.9
2004	9329.1	1188.0	89.4	85.4	89.4	85.2	89.6	82.4	8685	99.1
2005	8696.3	1188.0	83.9	85.2	83.9	85.1	83.6	82.5	7476	85.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1995 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					309	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	984	504		274	26	
E. Testing of plant systems or components					6	
H. Nuclear regulatory requirements				345		
Subtotal	984	504	0	619	344	0
Total		1488			963	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1995 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		37
13. Reactor Auxiliary Systems		5
14. Safety Systems		78
15. Reactor Cooling Systems		7
16. Steam generation systems		5
31. Turbine and auxiliaries		4
32. Feedwater and Main Steam System		29
41. Main Generator Systems		140
XX. Miscellaneous Systems		0
Total	0	305

GB-23A TORNESS 1

Operator: BE (BRITISH ENERGY)

Contractor: NNC (NATIONAL NUCLEAR CORPORATION)

1. Station Details

Type: GCR

Net Reference Unit Power
at the beginning of 2005: 625.0 MW(e)

Design Net Capacity: 645.0 MW(e)

Design Discharge Burnup: 29500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4667.7 GW(e).h

Energy Availability Factor: 85.3%

Load Factor: 85.3%

Operating Factor: 95.6%

Energy Unavailability Factor: 14.7%

Total Off-line Time: 388 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	380.6	349.9	314.5	404.6	450.3	402.5	450.4	380.6	360.2	412.2	392.1	369.8	4667.7
EAF (%)	82.0	83.7	68.5	89.8	97.1	88.9	97.2	82.5	76.4	91.6	89.7	76.6	85.3
UCF (%)	82.0	83.7	68.5	89.8	97.2	88.9	97.2	82.5	76.4	91.6	89.7	76.7	85.3
LF (%)	81.9	83.3	67.6	90.0	96.8	89.4	96.9	81.9	80.0	88.5	87.1	79.5	85.3
OF (%)	99.7	85.4	61.3	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	95.6
EUF (%)	18.0	16.3	31.5	10.2	2.9	11.1	2.8	17.5	23.6	8.4	10.3	23.4	14.7
PUF (%)	12.1	2.0	1.6	10.2	2.9	11.1	2.8	8.8	11.8	5.0	8.0	11.5	7.3
UCLF (%)	5.9	14.3	29.9	0.0	0.0	0.0	0.0	8.7	11.9	3.5	2.3	11.9	7.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1980 Lifetime Generation: 66318.7 GW(e).h

Date of First Criticality: 25 Mar 1988 Cumulative Energy Availability Factor: 73.2%

Date of Grid Connection: 25 May 1988 Cumulative Load Factor: 68.2%

Date of Commercial Operation: 25 May 1988 Cumulative Unit Capability Factor: 75.2%

 Cumulative Energy Unavailability Factor: 26.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	2287.1	645.0	92.5	92.5	69.1	69.1	66.2	66.2	4330	80.9
1989	2162.1	625.0	53.2	68.5	39.5	51.0	39.6	49.9	4582	52.4
1990	1938.4	625.0	35.7	56.0	35.7	45.1	35.5	44.4	3943	45.1
1991	2513.6	625.0	46.0	53.2	46.0	45.4	46.0	44.9	5011	57.4
1992	4532.9	632.0	81.7	59.5	81.7	53.4	80.6	52.8	7792	87.5
1993	3603.1	632.0	67.9	61.1	67.7	56.0	62.9	54.6	6358	70.2
1994	4329.9	632.0	86.7	64.9	79.5	59.6	78.4	58.2	7716	88.3
1995	4058.6	632.0	75.2	66.3	75.2	61.6	71.5	60.0	6867	76.5
1996	1178.1	632.0	96.6	69.8	96.6	65.7	21.2	55.5	2043	23.3
1997	4909.4	625.0	89.7	71.9	89.7	68.2	89.4	59.0	8050	91.6
1998	4297.9	625.0	78.6	72.5	78.6	69.1	78.3	60.8	7153	81.4
1999	5157.8	625.0	94.2	74.3	94.2	71.3	93.9	63.6	8737	99.5
2000	4376.8	625.0	79.7	74.8	79.7	71.9	79.7	64.9	8769	99.8
2001	3968.5	625.0	70.2	74.4	70.2	71.8	72.3	65.4	7613	86.7
2002	3761.9	625.0	69.6	74.1	68.7	71.6	68.7	65.6	6719	76.7
2003	4681.9	625.0	85.8	74.8	85.6	72.5	85.5	66.9	8347	95.3
2004	3921.8	625.0	71.6	74.6	71.6	72.4	71.6	67.2	6993	79.8
2005	4667.7	625.0	85.3	75.2	85.3	73.2	85.3	68.2	8372	95.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		360			213	
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling				693	9	
D. Inspection, maintenance or repair without refuelling				212		
E. Testing of plant systems or components					1	
H. Nuclear regulatory requirements				65		
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						33
Z. Others					29	
Subtotal	0	360	0	970	259	34
Total		360			1263	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		33
15. Reactor Cooling Systems		96
31. Turbine and auxiliaries		25
32. Feedwater and Main Steam System		12
41. Main Generator Systems		10
42. Electrical Power Supply Systems		34
Total	0	210

GB-23B TORNESS 2

Operator: BE (BRITISH ENERGY)

Contractor: NNC (NATIONAL NUCLEAR CORPORATION)

1. Station Details

Type: GCR

Net Reference Unit Power
at the beginning of 2005: 625.0 MW(e)

Design Net Capacity: 645.0 MW(e)

Design Discharge Burnup: 29500 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4821.9 GW(e).h

Energy Availability Factor: 87.9%

Load Factor: 88.1%

Operating Factor: 97.8%

Energy Unavailability Factor: 12.1%

Total Off-line Time: 190 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	421.6	400.1	368.6	359.5	414.7	406.0	453.4	415.0	357.1	411.7	402.2	411.8	4821.9
EAF (%)	90.7	95.3	79.4	79.7	89.6	89.8	97.7	96.9	71.6	88.9	89.7	85.0	87.9
UCF (%)	90.7	95.3	79.4	79.7	89.6	89.8	97.8	96.9	71.6	88.9	89.7	85.0	87.9
LF (%)	90.7	95.3	79.3	80.0	89.2	90.2	97.5	89.2	79.4	88.4	89.4	88.6	88.1
OF (%)	100.0	100.0	100.0	100.1	100.0	100.0	100.0	92.6	95.1	90.7	100.0	95.7	97.8
EUF (%)	9.3	4.7	20.6	20.3	10.4	10.2	2.3	3.1	28.4	11.1	10.3	15.0	12.1
PUF (%)	9.3	4.7	2.9	12.7	10.4	10.2	2.3	3.1	12.8	2.9	10.3	8.9	7.5
UCLF (%)	0.0	0.0	17.8	7.6	0.0	0.0	0.0	0.0	15.6	8.2	0.0	6.2	4.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1980 Lifetime Generation: 62839.7 GW(e).h

Date of First Criticality: 23 Dec 1988 Cumulative Energy Availability Factor: 72.2%

Date of Grid Connection: 03 Feb 1989 Cumulative Load Factor: 67.5%

Date of Commercial Operation: 03 Feb 1989 Cumulative Unit Capability Factor: 73.3%

 Cumulative Energy Unavailability Factor: 27.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	3633.8	625.0	87.4	87.4	74.2	74.2	73.3	73.3	7068	89.1
1990	1948.3	625.0	36.1	60.5	36.1	54.2	35.7	53.6	4211	48.2
1991	2651.3	625.0	48.4	56.3	48.4	52.2	48.6	51.9	5068	58.0
1992	3732.7	625.0	67.0	59.1	67.0	56.1	67.1	55.8	6560	73.7
1993	4038.0	632.0	74.4	62.2	74.4	59.8	73.1	59.4	7168	82.1
1994	3478.1	632.0	71.2	63.8	65.5	60.8	62.8	59.9	6264	71.5
1995	4651.9	632.0	85.9	67.1	85.9	64.5	81.3	63.1	7909	87.4
1996	1571.3	632.0	96.2	70.8	96.2	68.5	28.3	58.7	2409	27.4
1997	4218.0	625.0	77.7	71.5	77.7	69.6	76.8	60.7	7181	81.8
1998	5094.4	625.0	93.7	73.8	93.7	72.0	92.8	64.0	8713	99.2
1999	4984.0	625.0	91.1	75.3	91.1	73.7	90.8	66.4	8588	97.8
2000	3936.1	625.0	71.7	75.0	71.7	73.6	71.7	66.8	7686	87.5
2001	4293.6	625.0	77.2	75.2	76.6	73.8	78.2	67.7	8476	96.5
2002	1945.6	625.0	37.0	72.5	35.7	71.1	35.5	65.4	3751	42.8
2003	3782.8	625.0	69.4	72.3	69.4	71.0	69.1	65.7	6874	78.5
2004	4083.0	625.0	74.5	72.4	74.5	71.2	74.6	66.2	7682	87.7
2005	4821.9	625.0	87.9	73.3	87.9	72.2	88.1	67.5	8570	97.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					374	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling	661				11	
D. Inspection, maintenance or repair without refuelling	245					
G. Major back-fitting, refurbishment or upgrading activities without refuelling	26				28	
H. Nuclear regulatory requirements	56					
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	
Subtotal	0	0	0	988	418	0
Total	0			1406		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
15. Reactor Cooling Systems		309
16. Steam generation systems		33
17. Safety I&C Systems (excluding reactor I&C)		24
21. Fuel Handling and Storage Facilities		2
32. Feedwater and Main Steam System		0
Total	0	371

GB-13A WYLFA 1

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: EE/B&W/T (THE ENGLISH ELECTRIC CO. LTD / BABCOCK & WILCOX CO. / TAYLOR WOODROW CONSTRUCTION

1. Station Details

Type: GCR
Net Reference Unit Power
at the beginning of 2005: 490.0 MW(e)
Design Net Capacity: 550.0 MW(e)
Design Discharge Burnup: 54000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2967.9 GW(e).h
Energy Availability Factor: 69.1%
Load Factor: 69.1%
Operating Factor: 82.2%
Energy Unavailability Factor: 30.9%
Total Off-line Time: 1560 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	330.4	230.3	217.0	2.6	0.0	202.0	303.2	334.1	333.9	327.2	324.2	363.0	2967.9
EAF (%)	90.6	69.9	59.5	0.6	0.0	57.3	83.2	91.7	94.6	89.8	91.9	99.6	69.1
UCF (%)	90.6	69.9	59.5	0.6	0.0	57.3	83.2	93.3	97.1	91.1	93.2	99.6	69.7
LF (%)	90.6	69.9	59.5	0.7	0.0	57.3	83.2	91.7	94.6	89.6	91.9	99.6	69.1
OF (%)	100.0	100.0	100.0	1.5	0.0	85.1	100.0	100.0	100.0	99.9	100.0	100.0	82.2
EUF (%)	9.4	30.1	40.5	99.4	100.0	42.7	16.8	8.3	5.4	10.2	8.1	0.4	30.9
PUF (%)	0.0	0.0	0.0	98.6	100.0	34.0	13.2	0.0	0.0	0.0	0.0	0.0	20.5
UCLF (%)	9.4	30.1	40.5	0.8	0.0	8.8	3.6	6.7	2.9	8.9	6.8	0.4	9.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.4	1.4	1.3	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 A STATUTORY OUTAGE OF ABOUT 60 DAYS COMMENCED ON 01 APRIL.THERE WAS ONE MANUAL OUTAGE OF ABOUT 2 DAYS COMMENCING ON 21 JUNE DUE TO A STUCK FUEL ELEMENT.

5. Historical Summary

Date of Construction Start:	01 Sep 1963	Lifetime Generation:	97984.0 GW(e).h
Date of First Criticality:	01 Nov 1969	Cumulative Energy Availability Factor:	71.5%
Date of Grid Connection:	24 Jan 1971	Cumulative Load Factor:	72.0%
Date of Commercial Operation:	01 Nov 1971	Cumulative Unit Capability Factor:	88.4%
		Cumulative Energy Unavailability Factor:	28.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	684.7	990.0	100.0	100.0	47.2	47.2	47.2	47.2	1273	87.0
1972	3026.3	990.0	100.0	100.0	35.0	36.7	35.0	36.7	0	0.0
1973	2236.9	840.0	100.0	100.0	30.5	34.1	30.5	34.1	0	0.0
1974	4364.0	840.0	100.0	100.0	59.5	41.6	59.5	41.6	8568	98.1
1975	1583.0	840.0	100.0	100.0	21.6	37.0	21.6	37.0	4437	50.8
1976	4818.0	840.0	100.0	100.0	66.8	42.7	64.4	42.2	8633	97.0
1977	4984.0	840.0	100.0	100.0	70.0	46.9	67.9	46.2	8008	91.7
1978	3801.0	840.0	100.0	100.0	52.5	47.7	51.8	47.0	7739	88.6
1979	5200.0	840.0	100.0	100.0	74.9	50.9	70.9	49.8	8694	99.5
1980	5764.0	840.0	78.2	97.7	78.1	53.8	78.5	52.9	8609	98.5
1981	6234.0	840.0	83.3	96.3	83.2	56.7	83.3	55.9	8823	99.1
1982	6040.0	840.0	81.8	95.0	81.7	58.9	81.4	58.1	8700	98.5
1983	6296.0	840.0	84.7	94.2	83.9	60.9	85.8	60.4	8715	99.8
1984	6757.0	840.0	89.5	93.8	89.5	63.1	92.1	62.7	8728	99.9
1985	6682.5	840.0	88.5	93.4	88.4	64.8	91.1	64.7	8736	100.0
1986	4099.9	840.0	62.1	91.4	61.9	64.6	55.7	64.1	7939	90.6
1987	4499.4	840.0	59.1	89.4	58.8	64.3	60.2	63.9	8611	96.7
1988	6172.4	840.0	84.3	89.1	83.8	65.4	84.1	65.0	8530	97.6
1989	6614.0	840.0	86.9	89.0	86.9	66.6	89.6	66.4	8572	97.6
1990	6746.4	840.0	89.9	89.0	89.9	67.8	91.9	67.7	8549	97.9
1991	7451.3	840.0	91.5	89.2	89.7	68.8	101.5	69.3	8374	95.9
1992	7795.2	950.0	92.3	89.3	92.1	70.1	92.2	70.5	8904	100.0
1993	7215.2	950.0	87.0	89.2	86.8	70.9	86.9	71.4	8477	97.0
1994	6111.0	950.0	76.1	88.6	72.4	71.0	73.6	71.5	6933	79.4
1995	Data not provided									
1996	"									
1997	"									
1998	"									
1999	"									
2000	"									
2001	"									
2002	"									
2003	"									
2004	4144.3	490.0	97.0	88.8	96.1	71.6	96.3	72.1	8784	100.0
2005	2967.9	490.0	69.7	88.4	69.1	71.5	69.1	72.0	7200	82.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		63			425	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				33	9	
D. Inspection, maintenance or repair without refuelling	1497			534		
H. Nuclear regulatory requirements				18	9	
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	16
Subtotal	1497	63	0	585	445	18
Total		1560			1048	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		9
12. Reactor I&C Systems		32
13. Reactor Auxiliary Systems		0
14. Safety Systems		4
15. Reactor Cooling Systems		24
16. Steam generation systems		34
21. Fuel Handling and Storage Facilities	44	15
31. Turbine and auxiliaries	19	111
32. Feedwater and Main Steam System		34
41. Main Generator Systems		0
42. Electrical Power Supply Systems		4
Total	63	267

GB-13B WYLFA 2

Operator: BNFL (BRITISH NUCLEAR FUELS PLC)

Contractor: EE/B&W/T (THE ENGLISH ELECTRIC CO. LTD / BABCOCK & WILCOX CO. / TAYLOR WOODROW CONSTRUCTION

1. Station Details

Type: GCR
Net Reference Unit Power
at the beginning of 2005: 490.0 MW(e)
Design Net Capacity: 550.0 MW(e)
Design Discharge Burnup: 54000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3782.0 GW(e).h
Energy Availability Factor: 88.1%
Load Factor: 88.1%
Operating Factor: 98.7%
Energy Unavailability Factor: 11.9%
Total Off-line Time: 115 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	333.4	260.5	282.7	331.4	326.2	282.7	326.2	325.7	323.6	343.2	328.0	318.4	3782.0
EAF (%)	91.5	79.1	77.5	93.9	89.5	80.1	89.5	89.3	91.7	94.2	93.0	87.3	88.1
UCF (%)	91.5	79.1	77.5	93.9	89.5	81.4	90.6	91.1	93.3	96.5	93.9	87.9	88.9
LF (%)	91.5	79.1	77.5	94.1	89.5	80.1	89.5	89.3	91.7	94.0	93.0	87.3	88.1
OF (%)	100.0	100.0	89.5	100.1	100.0	100.0	100.0	100.0	100.0	99.9	100.0	95.0	98.7
EUF (%)	8.5	20.9	22.5	6.1	10.5	19.9	10.5	10.7	8.3	5.8	7.0	12.7	11.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	8.6	20.9	22.5	6.1	10.5	18.7	9.4	8.9	6.7	3.5	6.1	12.1	11.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	1.2	1.1	1.7	1.6	2.3	0.9	0.6	0.8

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

DURING 2005 THERE WERE TWO MANUAL OUTAGES. THE FIRST OF ABOUT 3 DAYS DURATION COMMENCED ON 17 MARCH DUE TO A GAS CIRCULATOR PROBLEM. THE SECOND OF ABOUT 2 DAYS COMMENCED ON 30 DECEMBER DUE TO A LOSS OF SUPPLIES ON TURBINE ALTERNATOR NUMBER 3.

5. Historical Summary

Date of Construction Start:	01 Sep 1963	Lifetime Generation:	93443.0 GW(e).h
Date of First Criticality:	01 Sep 1970	Cumulative Energy Availability Factor:	81.7%
Date of Grid Connection:	21 Jul 1971	Cumulative Load Factor:	81.9%
Date of Commercial Operation:	03 Jan 1972	Cumulative Unit Capability Factor:	82.1%
		Cumulative Energy Unavailability Factor:	18.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972			Data not provided							
1973										
1974										
1975										
1976										
1977										
1978										
1979										
1980										
1981										
1982										
1983										
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1999										
2000										
2001										
2002										
2003										
2004	3247.0	490.0	75.4	75.4	75.4	75.4	75.6	75.6	7296	83.3
2005	3782.0	490.0	88.9	82.1	88.1	81.7	88.1	81.9	8645	98.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		115			319	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	42					
D. Inspection, maintenance or repair without refuelling	531					
E. Testing of plant systems or components					2	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)						16
Subtotal	0	115	0	573	329	16
Total		115			918	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		15
12. Reactor I&C Systems		13
14. Safety Systems		2
15. Reactor Cooling Systems		51
16. Steam generation systems	78	112
17. Safety I&C Systems (excluding reactor I&C)		9
21. Fuel Handling and Storage Facilities		1
31. Turbine and auxiliaries	37	87
32. Feedwater and Main Steam System		11
41. Main Generator Systems		4
42. Electrical Power Supply Systems		6
Total	115	311

US-313 ARKANSAS ONE-1

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: B&W (BABCOCK & WILCOX CO.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 840.0 MW(e)
Design Net Capacity: 850.0 MW(e)
Design Discharge Burnup: 35000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5743.2 GW(e).h
Energy Availability Factor: 77.4%
Load Factor: 78.1%
Operating Factor: 77.4%
Energy Unavailability Factor: 22.6%
Total Off-line Time: 1982 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	642.4	580.4	640.6	616.4	635.8	607.7	621.4	622.4	609.0	78.2	0.0	89.0	5743.2
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	9.7	0.0	20.8	77.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	9.7	0.0	20.8	77.4
LF (%)	102.8	102.8	102.5	101.9	101.7	100.5	99.4	99.6	100.7	12.5	0.0	14.2	78.1
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	12.6	0.0	17.9	77.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.3	100.0	79.2	22.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.3	100.0	67.3	21.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	1.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1968
Date of First Criticality: 06 Aug 1974
Date of Grid Connection: 17 Aug 1974
Date of Commercial Operation: 19 Dec 1974

Lifetime Generation: 165256.9 GW(e).h
Cumulative Energy Availability Factor: 77.5%
Cumulative Load Factor: 72.6%
Cumulative Unit Capability Factor: 77.8%
Cumulative Energy Unavailability Factor: 22.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	0.0	797.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1975	4898.4	797.0	67.7	70.2	67.7	70.2	70.2	64.7	6661	76.0
1976	3888.0	836.0	53.0	61.8	53.0	61.8	52.9	58.9	4966	56.5
1977	5103.1	836.0	69.7	64.4	69.7	64.4	69.7	62.4	6688	76.3
1978	5249.8	836.0	71.7	66.2	71.7	66.2	71.7	64.7	6676	76.2
1979	3323.4	836.0	45.4	62.1	45.4	62.1	45.4	60.9	4253	48.6
1980	3781.2	836.0	74.8	64.2	63.7	62.3	51.5	59.3	5570	63.4
1981	4900.8	836.0	72.5	65.4	72.5	63.8	66.9	60.4	6336	72.3
1982	3721.4	836.0	64.8	65.3	64.8	63.9	50.8	59.2	5671	64.7
1983	3220.6	836.0	48.3	63.4	48.3	62.2	44.0	57.5	4191	47.8
1984	4604.1	836.0	70.1	64.1	70.1	63.0	62.7	58.0	6150	70.0
1985	5190.4	836.0	78.3	65.4	78.3	64.3	70.9	59.2	6852	78.2
1986	3589.9	836.0	62.2	65.1	62.2	64.2	49.0	58.4	5446	62.2
1987	4763.3	836.0	88.2	66.9	88.2	66.0	65.0	58.9	7720	88.1
1988	3963.2	836.0	68.3	67.0	68.3	66.2	54.0	58.5	5996	68.3
1989	3377.0	836.0	67.1	67.0	67.1	66.2	46.1	57.7	5871	67.0
1990	4145.8	836.0	75.9	67.5	75.9	66.8	56.6	57.6	6437	73.5
1991	6540.5	836.0	91.3	68.9	91.3	68.3	89.3	59.5	7991	91.2
1992	5833.1	836.0	80.7	69.6	80.7	69.0	79.4	60.6	7088	80.7
1993	6126.5	836.0	85.9	70.4	85.9	69.8	83.7	61.8	7520	85.8
1994	7198.6	836.0	98.7	71.8	98.7	71.3	98.3	63.6	8643	98.7
1995	5978.2	836.0	85.6	72.5	85.6	72.0	81.6	64.5	7493	85.5
1996	6287.0	836.0	86.7	73.1	86.7	72.6	85.6	65.4	7613	86.7
1997	7251.1	836.0	99.6	74.3	99.6	73.8	99.0	66.9	8723	99.6
1998	6216.8	836.0	84.1	74.7	84.1	74.2	84.9	67.6	7364	84.1
1999	6714.7	836.0	90.3	75.3	90.3	74.9	91.7	68.6	7907	90.3
2000	6410.1	836.0	88.2	75.8	88.2	75.4	87.3	69.3	7748	88.2
2001	6875.5	836.0	91.8	76.4	91.8	76.0	93.9	70.2	8100	92.5
2002	6568.6	836.0	89.1	76.9	89.1	76.5	89.7	70.9	7820	89.3
2003	6794.3	836.0	91.8	77.4	91.8	77.0	92.8	71.7	8050	91.9
2004	6827.6	836.0	91.6	77.8	91.6	77.5	93.0	72.4	8045	91.6
2005	5743.2	840.0	77.4	77.8	77.4	77.5	78.1	72.6	6778	77.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		88			644	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling				912		
D. Inspection, maintenance or repair without refuelling				152		
E. Testing of plant systems or components				3	2	
F. Major back-fitting, refurbishment or upgrading activities with refuelling	1893					
H. Nuclear regulatory requirements						51
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				61	4	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					2	
Subtotal	1893	88	0	1128	657	52
Total	1981			1837		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		95
12. Reactor I&C Systems		36
13. Reactor Auxiliary Systems		16
14. Safety Systems		30
15. Reactor Cooling Systems		49
16. Steam generation systems		55
17. Safety I&C Systems (excluding reactor I&C)		23
31. Turbine and auxiliaries	88	118
32. Feedwater and Main Steam System		75
33. Circulating Water System		11
35. All other I&C Systems		1
41. Main Generator Systems		92
42. Electrical Power Supply Systems		38
XX. Miscellaneous Systems		0
Total	88	639

US-368 ARKANSAS ONE-2

Operator: ENTERGY (ENTERGY NUCLEAR)
Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 1000.0 MW(e)
Design Net Capacity: 912.0 MW(e)
Design Discharge Burnup: 35000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7959.5 GW(e).h
Energy Availability Factor: 90.9%
Load Factor: 90.9%
Operating Factor: 90.9%
Energy Unavailability Factor: 9.1%
Total Off-line Time: 795 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	752.3	679.5	193.8	437.0	749.9	721.9	744.0	742.2	706.1	751.3	728.1	753.5	7959.5
EAF (%)	100.0	100.0	25.8	66.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.9
UCF (%)	100.0	100.0	25.8	66.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.9
LF (%)	101.1	101.1	26.0	60.7	100.8	100.3	100.0	99.8	98.1	100.8	101.1	101.3	90.9
OF (%)	100.0	100.0	25.8	66.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.9
EUF (%)	0.0	0.0	74.2	33.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
PUF (%)	0.0	0.0	74.2	33.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jul 1971
Date of First Criticality: 05 Dec 1978
Date of Grid Connection: 26 Dec 1978
Date of Commercial Operation: 26 Mar 1980

Lifetime Generation: 161685.7 GW(e).h
Cumulative Energy Availability Factor: 81.7%
Cumulative Load Factor: 81.8%
Cumulative Unit Capability Factor: 81.9%
Cumulative Energy Unavailability Factor: 18.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	3646.6	890.0	80.2	80.2	73.5	73.5	60.8	60.8	4913	72.8
1981	4323.6	858.0	65.2	71.9	65.2	68.9	57.5	59.0	5622	64.2
1982	3807.5	858.0	57.9	66.9	57.9	65.0	50.7	56.0	5023	57.3
1983	4427.9	858.0	61.5	65.5	61.5	64.0	58.9	56.8	5380	61.4
1984	6203.6	858.0	84.7	69.5	84.7	68.4	82.3	62.1	7439	84.7
1985	4701.2	858.0	69.2	69.4	69.0	68.5	62.5	62.2	6040	68.9
1986	5314.3	858.0	71.6	69.8	71.6	68.9	70.7	63.4	6274	71.6
1987	6605.2	858.0	87.7	72.1	87.7	71.3	87.9	66.6	7678	87.6
1988	4952.9	858.0	66.8	71.5	66.8	70.8	65.7	66.5	5867	66.8
1989	5472.2	858.0	74.4	71.8	74.4	71.2	72.8	67.1	6514	74.4
1990	7129.6	858.0	93.8	73.8	93.8	73.3	94.9	69.7	8211	93.7
1991	6123.3	858.0	82.1	74.5	82.1	74.0	81.5	70.7	7187	82.0
1992	5504.8	858.0	72.8	74.4	72.8	73.9	73.0	70.9	6390	72.7
1993	7344.7	858.0	95.3	75.9	95.3	75.5	97.7	72.8	8346	95.3
1994	6724.9	858.0	88.0	76.7	88.0	76.3	89.5	73.9	7707	88.0
1995	5694.5	858.0	75.9	76.6	75.9	76.3	75.8	74.1	6644	75.8
1996	7063.9	858.0	91.6	77.5	91.6	77.2	93.7	75.2	8049	91.6
1997	6957.0	858.0	91.5	78.3	91.5	78.0	92.6	76.2	8013	91.5
1998	6877.3	858.0	91.3	79.0	91.3	78.7	91.5	77.0	7995	91.3
1999	6226.9	858.0	82.4	79.2	82.4	78.9	82.8	77.3	7219	82.4
2000	5265.3	858.0	69.2	78.7	69.2	78.4	69.9	76.9	6077	69.2
2001	7917.0	858.0	96.8	79.5	96.8	79.3	105.3	78.2	8498	97.0
2002	8002.2	858.0	93.1	80.1	93.1	79.9	106.5	79.5	8203	93.6
2003	7925.7	858.0	92.5	80.6	92.5	80.4	105.5	80.6	8156	93.1
2004	8627.6	1000.0	97.7	81.4	97.7	81.2	98.2	81.4	8580	97.7
2005	7959.5	1000.0	90.9	81.9	90.9	81.7	90.9	81.8	7966	90.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					561	
B. Refuelling without a maintenance					14	
C. Inspection, maintenance or repair combined with refuelling	792			883		
D. Inspection, maintenance or repair without refuelling				143		
E. Testing of plant systems or components	0			14	22	
J. Grid failure or grid unavailability						16
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	3	0
Z. Others					0	
Subtotal	792	0	0	1040	600	16
Total		792			1656	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems		69
13. Reactor Auxiliary Systems		22
14. Safety Systems		100
15. Reactor Cooling Systems		164
16. Steam generation systems		29
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		50
32. Feedwater and Main Steam System		60
33. Circulating Water System		3
41. Main Generator Systems		11
42. Electrical Power Supply Systems		33
Total	0	549

US-334 BEAVER VALLEY-1

Operator: FENOC (FIRST ENERGY NUCLEAR OPERATING CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 821.0 MW(e)
Design Net Capacity: 835.0 MW(e)
Design Discharge Burnup: 43727 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7290.3 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 101.4%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 0 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	627.7	566.1	628.4	602.8	590.5	598.1	608.9	612.9	597.3	624.2	606.0	627.5	7290.3
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	102.8	102.6	102.9	102.1	96.7	101.2	99.7	100.3	101.0	102.1	102.5	102.7	101.4
OF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

US-482 WOLF CREEK

Operator: WOLF (WOLF CREEK NUCLEAR OPERATION CORP.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1165.0 MW(e)

Design Net Capacity: 1170.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8820.9 GW(e).h

Energy Availability Factor: 86.0%

Load Factor: 86.4%

Operating Factor: 85.9%

Energy Unavailability Factor: 14.0%

Total Off-line Time: 1233 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	618.7	716.1	884.7	209.2	329.4	846.5	869.4	871.3	847.3	884.6	857.6	886.2	8820.9
EAF (%)	71.0	93.2	100.0	26.7	41.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.0
UCF (%)	71.0	93.2	100.0	26.7	41.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.0
LF (%)	71.4	91.5	102.1	24.9	38.0	100.9	100.3	100.5	101.0	101.9	102.2	102.2	86.4
OF (%)	71.4	92.4	100.0	26.5	40.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.9
EUF (%)	29.0	6.8	0.0	73.3	59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
PUF (%)	0.0	0.0	0.0	73.3	59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
UCLF (%)	29.0	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1977

Date of First Criticality: 22 May 1985

Date of Grid Connection: 12 Jun 1985

Date of Commercial Operation: 03 Sep 1985

Lifetime Generation: 175012.2 GW(e).h

Cumulative Energy Availability Factor: 85.6%

Cumulative Load Factor: 84.9%

Cumulative Unit Capability Factor: 85.7%

Cumulative Energy Unavailability Factor: 14.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	2942.1	1128.0	100.0	100.0	100.0	100.0	90.6	90.6	2770	96.2
1986	6966.1	1128.0	73.0	79.7	73.0	79.7	70.5	75.5	6416	73.2
1987	6504.1	1128.0	68.6	74.9	68.6	74.9	65.8	71.3	6009	68.6
1988	6676.4	1128.0	66.8	72.5	66.8	72.5	67.4	70.1	5963	67.9
1989	9709.3	1135.0	98.4	78.5	98.4	78.5	97.7	76.5	8618	98.4
1990	7889.1	1135.0	79.8	78.7	79.8	78.7	79.3	77.1	7036	80.3
1991	5891.4	1135.0	71.0	77.5	71.0	77.5	59.3	74.2	6288	71.8
1992	8490.7	1131.0	85.4	78.6	85.4	78.6	85.5	75.8	7538	85.8
1993	7908.6	1134.0	79.3	78.7	79.3	78.7	79.7	76.2	7000	79.9
1994	8546.0	1160.0	85.4	79.4	85.4	79.4	84.9	77.2	7500	85.6
1995	10062.2	1167.0	98.5	81.3	98.5	81.3	98.7	79.3	8625	98.5
1996	8233.7	1163.0	81.8	81.3	80.6	81.2	80.4	79.4	7078	80.6
1997	8447.5	1163.0	82.8	81.5	82.8	81.4	82.9	79.7	7255	82.8
1998	10400.7	1163.0	100.0	82.9	100.0	82.8	102.1	81.4	8760	100.0
1999	9156.6	1163.0	89.6	83.3	89.6	83.3	89.9	82.0	7847	89.6
2000	9071.4	1170.0	88.8	83.7	88.8	83.6	88.3	82.4	7795	88.7
2001	10346.7	1170.0	99.7	84.7	99.7	84.6	101.0	83.6	8731	99.7
2002	9041.7	1165.0	87.8	84.9	87.8	84.8	88.4	83.9	7695	87.8
2003	8902.5	1167.0	86.7	85.0	86.7	84.9	87.1	84.1	7594	86.7
2004	10132.7	1166.0	98.8	85.7	98.5	85.6	98.9	84.8	8650	98.5
2005	8820.9	1165.0	86.0	85.7	86.0	85.6	86.4	84.9	7528	85.9

5. Historical Summary

Date of Construction Start: 01 Jun 1970
Date of First Criticality: 10 May 1976
Date of Grid Connection: 14 Jun 1976
Date of Commercial Operation: 01 Oct 1976

Lifetime Generation: 138828.0 GW(e).h
Cumulative Energy Availability Factor: 70.3%
Cumulative Load Factor: 66.5%
Cumulative Unit Capability Factor: 70.3%
Cumulative Energy Unavailability Factor: 29.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	303.2	852.0	100.0	100.0	100.0	100.0	16.1	16.1	821	37.2
1977	2870.3	843.0	39.2	51.6	39.2	51.6	38.9	34.2	4312	49.2
1978	2481.4	800.0	35.4	44.6	35.4	44.6	35.4	34.7	3569	40.7
1979	1778.4	815.0	24.8	38.6	24.8	38.6	24.9	31.7	3498	39.9
1980	300.7	811.0	6.9	31.2	6.9	31.2	4.2	25.3	600	6.8
1981	4674.7	810.0	73.9	39.2	73.9	39.2	65.9	33.0	6444	73.6
1982	2717.4	810.0	41.7	39.6	41.7	39.6	38.3	33.8	3644	41.6
1983	4682.2	810.0	68.5	43.6	68.5	43.6	66.0	38.2	5976	68.2
1984	4756.8	810.0	71.8	47.0	71.8	47.0	66.9	41.7	6301	71.7
1985	5901.5	810.0	91.9	51.8	91.9	51.8	83.2	46.1	8046	91.8
1986	4784.2	810.0	70.7	53.7	70.7	53.7	67.4	48.2	6195	70.7
1987	5620.9	810.0	84.0	56.3	84.0	56.3	79.2	50.9	7320	83.6
1988	4993.6	810.0	79.6	58.2	79.6	58.2	70.2	52.5	6989	79.6
1989	3794.3	810.0	66.5	58.9	66.5	58.9	53.5	52.6	5822	66.5
1990	6167.1	810.0	92.2	61.2	92.2	61.2	86.9	55.0	8074	92.2
1991	3710.9	810.0	55.8	60.8	55.8	60.8	52.3	54.8	4883	55.7
1992	6298.4	810.0	93.6	62.9	93.6	62.9	88.5	56.9	8218	93.6
1993	4359.8	810.0	67.3	63.1	67.3	63.1	61.4	57.1	5891	67.2
1994	5504.4	810.0	79.9	64.0	79.9	64.0	77.6	58.3	6991	79.8
1995	5449.2	810.0	77.8	64.7	77.8	64.7	76.8	59.2	6813	77.8
1996	5698.1	810.0	81.3	65.6	81.3	65.6	80.1	60.3	7132	81.2
1997	4025.8	810.0	56.8	65.1	56.8	65.1	56.7	60.1	4972	56.8
1998	2829.3	810.0	40.4	64.0	40.4	64.0	39.9	59.2	3557	40.6
1999	6106.2	810.0	88.5	65.1	88.5	65.1	86.1	60.3	7746	88.4
2000	5883.0	810.0	84.6	65.9	84.6	65.9	82.7	61.3	7430	84.6
2001	5991.0	821.0	84.6	66.6	84.6	66.6	84.1	62.2	7407	84.6
2002	6989.9	821.0	97.0	67.8	97.0	67.8	97.2	63.5	8490	96.9
2003	5985.4	821.0	84.1	68.4	84.1	68.4	83.2	64.2	7359	84.0
2004	6678.5	821.0	92.4	69.3	92.4	69.3	92.6	65.3	8119	92.4
2005	7290.3	821.0	100.0	70.3	100.0	70.3	101.4	66.5	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					736	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	1212				6	
D. Inspection, maintenance or repair without refuelling	115					
E. Testing of plant systems or components	10				22	
H. Nuclear regulatory requirements					129	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	23				203	2
Z. Others					2	
Subtotal	0	0	0	1360	1113	2
Total	0			2475		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		8
13. Reactor Auxiliary Systems		36
14. Safety Systems		21
15. Reactor Cooling Systems		185
16. Steam generation systems		2
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		20
32. Feedwater and Main Steam System		144
35. All other I&C Systems		1
41. Main Generator Systems		24
42. Electrical Power Supply Systems		164
XX. Miscellaneous Systems		64
Total	0	673

US-412 BEAVER VALLEY-2

Operator: FENOC (FIRST ENERGY NUCLEAR OPERATING CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 831.0 MW(e)
Design Net Capacity: 836.0 MW(e)
Design Discharge Burnup: 36351 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6680.0 GW(e).h
Energy Availability Factor: 93.3%
Load Factor: 91.8%
Operating Factor: 93.3%
Energy Unavailability Factor: 6.7%
Total Off-line Time: 591 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	627.9	524.1	570.8	66.2	617.5	593.2	610.4	610.6	596.8	624.3	607.0	631.3	6680.0
EAF (%)	100.0	100.0	100.0	17.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.3
UCF (%)	100.0	100.0	100.0	17.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.3
LF (%)	101.6	93.8	92.3	11.1	99.9	99.1	98.7	98.8	99.8	100.8	101.5	102.1	91.8
OF (%)	100.0	100.0	100.0	17.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.3
EUF (%)	0.0	0.0	0.0	82.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
PUF (%)	0.0	0.0	0.0	82.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1974
Date of First Criticality: 04 Aug 1987
Date of Grid Connection: 17 Aug 1987
Date of Commercial Operation: 17 Nov 1987

Lifetime Generation: 105921.8 GW(e).h
Cumulative Energy Availability Factor: 85.0%
Cumulative Load Factor: 80.9%
Cumulative Unit Capability Factor: 85.0%
Cumulative Energy Unavailability Factor: 15.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	738.1	836.0	100.0	100.0	100.0	100.0	82.4	82.4	950	88.7
1988	6477.1	833.0	93.8	94.5	93.8	94.5	88.5	87.9	8224	93.6
1989	4557.1	833.0	71.7	83.7	71.7	83.7	62.5	75.9	6245	71.3
1990	4291.6	820.0	77.1	81.6	77.1	81.6	59.2	70.6	6734	76.9
1991	6762.2	820.0	99.5	85.9	99.5	85.9	94.1	76.2	8720	99.5
1992	5647.1	820.0	94.8	87.7	94.8	87.7	78.4	76.7	7342	83.6
1993	5212.7	820.0	77.3	86.0	77.3	86.0	72.6	76.0	6770	77.3
1994	7024.7	820.0	96.8	87.5	96.8	87.5	97.8	79.0	8481	96.8
1995	6047.0	820.0	87.0	87.4	87.0	87.4	84.2	79.7	7616	86.9
1996	4788.6	820.0	70.3	85.6	70.3	85.6	66.5	78.2	6169	70.2
1997	6158.7	820.0	86.6	85.7	86.6	85.7	85.7	79.0	7583	86.6
1998	1808.7	820.0	25.1	80.2	25.1	80.2	25.2	74.1	2179	24.9
1999	5752.5	820.0	81.7	80.4	81.7	80.4	80.1	74.6	7155	81.7
2000	6227.8	820.0	88.9	81.0	88.9	81.0	86.5	75.5	7804	88.8
2001	7191.7	831.0	99.4	82.3	99.4	82.3	99.8	77.3	8702	99.3
2002	6604.3	831.0	92.9	83.0	92.9	83.0	90.7	78.1	8133	92.8
2003	6637.0	831.0	91.8	83.6	91.8	83.6	91.2	79.0	8037	91.7
2004	7314.8	831.0	100.0	84.5	100.0	84.5	100.2	80.2	8784	100.0
2005	6680.0	831.0	93.3	85.0	93.3	85.0	91.8	80.9	8169	93.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					534	
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling	590			625	3	
D. Inspection, maintenance or repair without refuelling				22		
E. Testing of plant systems or components				1	23	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					77	
Subtotal	590	0	0	648	644	0
Total	590			1292		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		17
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		48
14. Safety Systems		16
15. Reactor Cooling Systems		307
16. Steam generation systems		31
17. Safety I&C Systems (excluding reactor I&C)		9
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		11
35. All other I&C Systems		5
41. Main Generator Systems		4
42. Electrical Power Supply Systems		35
XX. Miscellaneous Systems		13
Total	0	529

US-456 BRAIDWOOD-1**Operator:** EXELON (Exelon Nuclear Co.)**Contractor:** WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1185.0 MW(e)

Design Net Capacity: 1120.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10277.0 GW(e).h

Energy Availability Factor: 98.5%

Load Factor: 99.0%

Operating Factor: 98.5%

Energy Unavailability Factor: 1.5%

Total Off-line Time: 131 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	894.4	810.9	898.2	863.6	891.4	849.6	869.9	870.8	665.7	894.7	868.9	899.0	10277.0
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	82.1	100.0	100.0	100.0	98.5
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	82.1	100.0	100.0	100.0	98.5
LF (%)	101.4	101.8	101.9	101.2	101.1	99.6	98.7	98.8	78.0	101.3	101.8	102.0	99.0
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	81.9	100.0	100.0	100.0	98.5
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9	0.0	0.0	0.0	1.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9	0.0	0.0	0.0	1.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1975 **Lifetime Generation:** 145535.7 GW(e).h

Date of First Criticality: 29 May 1987 **Cumulative Energy Availability Factor:** 85.9%

Date of Grid Connection: 12 Jul 1987 **Cumulative Load Factor:** 83.5%

Date of Commercial Operation: 29 Jul 1988 **Cumulative Unit Capability Factor:** 85.9%

Cumulative Energy Unavailability Factor: 14.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	3424.2	1120.0	91.7	91.7	91.7	91.7	82.0	82.0	3409	91.4
1989	4649.1	1120.0	62.3	71.0	62.3	71.0	47.4	57.7	5435	62.0
1990	8264.6	1120.0	89.1	78.5	89.1	78.5	84.2	68.6	7778	88.8
1991	5018.6	1120.0	59.4	72.9	59.4	72.9	51.2	63.5	5198	59.3
1992	7157.9	1120.0	81.4	74.8	81.4	74.8	72.8	65.6	7142	81.3
1993	8693.1	1120.0	92.1	78.0	92.1	78.0	88.6	69.9	8048	91.9
1994	7398.2	1120.0	79.8	78.3	79.8	78.3	75.4	70.7	6940	79.2
1995	6614.3	1120.0	71.7	77.4	71.7	77.4	67.4	70.3	6214	70.9
1996	7618.9	1120.0	80.5	77.8	80.5	77.8	77.4	71.1	7021	79.9
1997	8096.3	1120.0	84.0	78.4	84.0	78.4	82.5	72.3	7339	83.8
1998	7578.8	1100.0	79.9	78.6	79.9	78.6	77.4	72.8	6976	79.6
1999	9904.8	1120.0	99.1	80.4	99.1	80.4	101.0	75.3	8680	99.1
2000	9311.3	1100.0	94.9	81.5	94.9	81.5	96.1	76.9	8335	94.9
2001	9557.9	1168.0	94.0	82.5	94.0	82.5	97.7	78.5	8247	94.1
2002	10612.2	1161.0	100.0	83.7	100.0	83.7	104.1	80.3	8760	100.0
2003	10094.8	1161.0	95.3	84.5	95.3	84.5	99.3	81.6	8353	95.4
2004	9807.2	1161.0	94.5	85.1	94.5	85.1	96.2	82.5	8310	94.6
2005	10277.0	1185.0	98.5	85.9	98.5	85.9	99.0	83.5	8630	98.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		129			326	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling				688		
D. Inspection, maintenance or repair without refuelling				144	0	
E. Testing of plant systems or components				2		
H. Nuclear regulatory requirements					25	
J. Grid failure or grid unavailability					4	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	7	
Subtotal	0	129	0	834	371	0
Total		129			1205	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		4
14. Safety Systems		5
15. Reactor Cooling Systems	129	1
16. Steam generation systems		26
17. Safety I&C Systems (excluding reactor I&C)		10
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System		21
41. Main Generator Systems		186
42. Electrical Power Supply Systems		14
XX. Miscellaneous Systems		14
Total	129	283

US-457 BRAIDWOOD-2**Operator:** EXELON (Exelon Nuclear Co.)**Contractor:** WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1177.0 MW(e)

Design Net Capacity: 1120.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9519.4 GW(e).h

Energy Availability Factor: 94.1%

Load Factor: 92.3%

Operating Factor: 94.1%

Energy Unavailability Factor: 5.9%

Total Off-line Time: 517 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	872.3	789.9	772.2	408.3	721.2	829.3	849.5	851.5	832.2	871.4	846.1	875.5	9519.4
EAF (%)	100.0	100.0	87.1	51.9	90.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.1
UCF (%)	100.0	100.0	87.1	51.9	90.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.1
LF (%)	99.6	99.9	88.2	48.2	82.4	97.9	97.0	97.2	98.2	99.4	99.8	100.0	92.3
OF (%)	100.0	100.0	88.8	53.2	87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.1
EUF (%)	0.0	0.0	12.9	48.1	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
PUF (%)	0.0	0.0	0.0	46.7	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
UCLF (%)	0.0	0.0	12.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1975 **Lifetime Generation:** 146907.6 GW(e).h

Date of First Criticality: 08 Mar 1988 **Cumulative Energy Availability Factor:** 89.5%

Date of Grid Connection: 25 May 1988 **Cumulative Load Factor:** 86.5%

Date of Commercial Operation: 17 Oct 1988 **Cumulative Unit Capability Factor:** 89.5%

Cumulative Energy Unavailability Factor: 10.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	1350.9	1120.0	81.9	81.9	81.9	81.9	66.6	66.6	1476	81.5
1989	7142.0	1120.0	86.9	86.0	86.9	86.0	72.8	71.7	7581	86.5
1990	6353.6	1120.0	78.8	82.8	78.8	82.8	64.8	68.6	6849	78.2
1991	6545.5	1120.0	75.7	80.6	75.7	80.6	66.7	68.0	6626	75.6
1992	8751.1	1120.0	95.1	84.0	95.1	84.0	89.0	73.0	8346	95.0
1993	7362.3	1120.0	81.5	83.5	81.5	83.5	75.0	73.4	7098	81.0
1994	6636.1	1120.0	74.1	82.0	74.1	82.0	67.6	72.5	6454	73.7
1995	9533.0	1120.0	98.1	84.2	98.1	84.2	97.2	75.9	8583	98.0
1996	8011.8	1120.0	84.1	84.2	84.1	84.2	81.4	76.6	7349	83.7
1997	8234.7	1120.0	86.5	84.5	86.5	84.5	83.9	77.4	7563	86.3
1998	9694.6	1100.0	97.7	85.8	97.7	85.8	99.0	79.5	8552	97.6
1999	9030.9	1120.0	92.3	86.3	92.3	86.3	92.0	80.6	8070	92.1
2000	9510.9	1100.0	94.6	87.0	94.6	87.0	98.1	82.0	8303	94.5
2001	9647.9	1122.0	96.7	87.7	96.7	87.7	99.0	83.3	8481	96.8
2002	9449.5	1154.0	92.5	88.1	92.5	88.1	94.3	84.1	8099	92.5
2003	9932.2	1154.0	95.1	88.6	95.1	88.6	98.3	85.0	8337	95.2
2004	10201.0	1129.0	99.7	89.3	99.7	89.3	102.7	86.1	8757	99.7
2005	9519.4	1177.0	94.1	89.5	94.1	89.5	92.3	86.5	8244	94.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		106			154	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	410			581		
D. Inspection, maintenance or repair without refuelling				89		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					21	
Subtotal	410	106	0	670	190	0
Total		516			860	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		14
14. Safety Systems		11
15. Reactor Cooling Systems		3
21. Fuel Handling and Storage Facilities		9
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System		20
35. All other I&C Systems		6
41. Main Generator Systems	106	8
42. Electrical Power Supply Systems		71
Total	106	143

US-260 BROWNS FERRY-2

Operator: TVA (TENNESSEE VALLEY AUTHORITY)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1118.0 MW(e)
Design Net Capacity: 1065.0 MW(e)
Design Discharge Burnup: 38000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8802.2 GW(e).h
Energy Availability Factor: 91.9%
Load Factor: 89.9%
Operating Factor: 91.9%
Energy Unavailability Factor: 8.1%
Total Off-line Time: 708 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	840.5	736.3	469.7	311.2	834.9	770.0	802.2	761.6	795.7	828.7	811.5	839.8	8802.2
EAF (%)	100.0	100.0	64.5	44.8	100.0	100.0	99.0	95.0	100.0	100.0	100.0	100.0	91.9
UCF (%)	100.0	100.0	64.5	44.8	100.0	100.0	99.0	95.0	100.0	100.0	100.0	100.0	91.9
LF (%)	101.0	98.0	56.5	38.7	100.4	95.7	96.4	91.6	98.8	99.5	100.8	101.0	89.9
OF (%)	100.0	100.0	65.7	43.4	100.0	100.0	98.9	94.9	100.0	100.0	100.0	100.0	91.9
EUF (%)	0.0	0.0	35.5	55.2	0.0	0.0	1.0	5.0	0.0	0.0	0.0	0.0	8.1
PUF (%)	0.0	0.0	35.5	53.4	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	7.5
UCLF (%)	0.0	0.0	0.0	1.8	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1967
Date of First Criticality: 20 Jul 1974
Date of Grid Connection: 28 Aug 1974
Date of Commercial Operation: 01 Mar 1975

Lifetime Generation: 174200.1 GW(e).h
Cumulative Energy Availability Factor: 77.1%
Cumulative Load Factor: 73.5%
Cumulative Unit Capability Factor: 77.1%
Cumulative Energy Unavailability Factor: 22.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	550.6	1065.0	7.0	7.0	7.0	7.0	7.0	7.0	517	7.0
1976	1567.2	1065.0	16.8	12.3	16.8	12.3	16.8	12.3	2547	29.0
1977	6225.0	1065.0	66.8	31.5	66.8	31.5	66.7	31.5	6963	79.5
1978	5547.5	1065.0	59.5	38.8	59.5	38.8	59.5	38.8	6032	68.9
1979	7441.4	1065.0	79.8	47.2	79.8	47.2	79.8	47.2	7593	86.7
1980	5618.4	1065.0	69.8	51.1	69.5	51.1	60.1	49.4	6073	69.1
1981	7471.9	1065.0	85.2	56.1	85.2	56.1	80.1	53.9	7452	85.1
1982	4450.9	1065.0	54.9	55.9	54.9	55.9	47.7	53.1	4778	54.5
1983	6385.6	1065.0	74.8	58.1	74.8	58.0	68.4	54.9	6514	74.4
1984	4044.4	1065.0	66.5	58.9	66.5	58.9	43.2	53.7	5844	66.5
1985	0.0	1065.0	0.0	57.5	0.0	57.5	0.0	52.4	0	0.0
1986	Data not available - Long-term shutdown									
1987	"									
1988	"									
1989	"									
1990	"									
1991	3804.0	1065.0	70.2	58.3	70.2	58.3	60.7	52.9	4125	70.1
1992	8388.8	1065.0	95.7	61.5	95.7	61.5	89.7	56.0	8401	95.6
1993	5776.8	1065.0	65.7	61.8	65.7	61.8	61.9	56.5	5753	65.7
1994	7345.2	1065.0	82.6	63.3	82.6	63.3	78.7	58.1	7234	82.6
1995	9197.0	1065.0	98.5	65.7	98.5	65.7	98.6	60.8	8629	98.5
1996	8046.3	1065.0	88.7	67.2	88.7	67.1	86.0	62.4	7795	88.7
1997	8372.9	1065.0	92.8	68.7	92.8	68.7	89.7	64.1	8130	92.8
1998	9301.0	1065.0	99.7	70.4	99.7	70.4	99.7	66.1	8730	99.7
1999	8586.3	1118.0	91.0	71.6	91.0	71.6	89.1	67.3	7985	91.2
2000	9733.5	1118.0	99.4	73.0	99.4	73.0	99.1	69.0	8727	99.4
2001	8414.6	1118.0	87.2	73.8	87.2	73.7	85.9	69.9	7636	87.2
2002	8911.3	1118.0	94.4	74.7	94.4	74.7	91.0	70.9	8269	94.4
2003	8369.2	1118.0	90.1	75.4	90.1	75.4	85.5	71.5	7888	90.0
2004	9786.0	1118.0	99.2	76.5	99.2	76.5	99.6	72.8	8715	99.2
2005	8802.2	1118.0	91.9	77.1	91.9	77.1	89.9	73.5	8052	91.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		50			188	
B. Refuelling without a maintenance					25	
C. Inspection, maintenance or repair combined with refuelling	648			928		
D. Inspection, maintenance or repair without refuelling	7			65	3	
E. Testing of plant systems or components				8	3	
H. Nuclear regulatory requirements						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					407	
Subtotal	655	50	0	1001	626	0
Total	705			1627		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
12. Reactor I&C Systems		28
13. Reactor Auxiliary Systems		11
14. Safety Systems		7
15. Reactor Cooling Systems	37	26
31. Turbine and auxiliaries		53
32. Feedwater and Main Steam System		10
35. All other I&C Systems		0
41. Main Generator Systems	13	9
42. Electrical Power Supply Systems		26
XX. Miscellaneous Systems		1
Total	50	176

US-260 BROWNS FERRY-2

Operator: TVA (TENNESSEE VALLEY AUTHORITY)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1118.0 MW(e)
Design Net Capacity: 1065.0 MW(e)
Design Discharge Burnup: 38000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8802.2 GW(e).h
Energy Availability Factor: 91.9%
Load Factor: 89.9%
Operating Factor: 91.9%
Energy Unavailability Factor: 8.1%
Total Off-line Time: 708 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	840.5	736.3	469.7	311.2	834.9	770.0	802.2	761.6	795.7	828.7	811.5	839.8	8802.2
EAF (%)	100.0	100.0	64.5	44.8	100.0	100.0	99.0	95.0	100.0	100.0	100.0	100.0	91.9
UCF (%)	100.0	100.0	64.5	44.8	100.0	100.0	99.0	95.0	100.0	100.0	100.0	100.0	91.9
LF (%)	101.0	98.0	56.5	38.7	100.4	95.7	96.4	91.6	98.8	99.5	100.8	101.0	89.9
OF (%)	100.0	100.0	65.7	43.4	100.0	100.0	98.9	94.9	100.0	100.0	100.0	100.0	91.9
EUF (%)	0.0	0.0	35.5	55.2	0.0	0.0	1.0	5.0	0.0	0.0	0.0	0.0	8.1
PUF (%)	0.0	0.0	35.5	53.4	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	7.5
UCLF (%)	0.0	0.0	0.0	1.8	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1967
Date of First Criticality: 20 Jul 1974
Date of Grid Connection: 28 Aug 1974
Date of Commercial Operation: 01 Mar 1975

Lifetime Generation: 174200.1 GW(e).h
Cumulative Energy Availability Factor: 77.1%
Cumulative Load Factor: 73.5%
Cumulative Unit Capability Factor: 77.1%
Cumulative Energy Unavailability Factor: 22.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	550.6	1065.0	7.0	7.0	7.0	7.0	7.0	7.0	517	7.0
1976	1567.2	1065.0	16.8	12.3	16.8	12.3	16.8	12.3	2547	29.0
1977	6225.0	1065.0	66.8	31.5	66.8	31.5	66.7	31.5	6963	79.5
1978	5547.5	1065.0	59.5	38.8	59.5	38.8	59.5	38.8	6032	68.9
1979	7441.4	1065.0	79.8	47.2	79.8	47.2	79.8	47.2	7593	86.7
1980	5618.4	1065.0	69.8	51.1	69.5	51.1	60.1	49.4	6073	69.1
1981	7471.9	1065.0	85.2	56.1	85.2	56.1	80.1	53.9	7452	85.1
1982	4450.9	1065.0	54.9	55.9	54.9	55.9	47.7	53.1	4778	54.5
1983	6385.6	1065.0	74.8	58.1	74.8	58.0	68.4	54.9	6514	74.4
1984	4044.4	1065.0	66.5	58.9	66.5	58.9	43.2	53.7	5844	66.5
1985	0.0	1065.0	0.0	57.5	0.0	57.5	0.0	52.4	0	0.0
1986	Data not available - Long-term shutdown									
1987	"									
1988	"									
1989	"									
1990	"									
1991	3804.0	1065.0	70.2	58.3	70.2	58.3	60.7	52.9	4125	70.1
1992	8388.8	1065.0	95.7	61.5	95.7	61.5	89.7	56.0	8401	95.6
1993	5776.8	1065.0	65.7	61.8	65.7	61.8	61.9	56.5	5753	65.7
1994	7345.2	1065.0	82.6	63.3	82.6	63.3	78.7	58.1	7234	82.6
1995	9197.0	1065.0	98.5	65.7	98.5	65.7	98.6	60.8	8629	98.5
1996	8046.3	1065.0	88.7	67.2	88.7	67.1	86.0	62.4	7795	88.7
1997	8372.9	1065.0	92.8	68.7	92.8	68.7	89.7	64.1	8130	92.8
1998	9301.0	1065.0	99.7	70.4	99.7	70.4	99.7	66.1	8730	99.7
1999	8586.3	1118.0	91.0	71.6	91.0	71.6	89.1	67.3	7985	91.2
2000	9733.5	1118.0	99.4	73.0	99.4	73.0	99.1	69.0	8727	99.4
2001	8414.6	1118.0	87.2	73.8	87.2	73.7	85.9	69.9	7636	87.2
2002	8911.3	1118.0	94.4	74.7	94.4	74.7	91.0	70.9	8269	94.4
2003	8369.2	1118.0	90.1	75.4	90.1	75.4	85.5	71.5	7888	90.0
2004	9786.0	1118.0	99.2	76.5	99.2	76.5	99.6	72.8	8715	99.2
2005	8802.2	1118.0	91.9	77.1	91.9	77.1	89.9	73.5	8052	91.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		50			188	
B. Refuelling without a maintenance					25	
C. Inspection, maintenance or repair combined with refuelling	648			928		
D. Inspection, maintenance or repair without refuelling	7			65	3	
E. Testing of plant systems or components				8	3	
H. Nuclear regulatory requirements						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					407	
Subtotal	655	50	0	1001	626	0
Total	705			1627		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
12. Reactor I&C Systems		28
13. Reactor Auxiliary Systems		11
14. Safety Systems		7
15. Reactor Cooling Systems	37	26
31. Turbine and auxiliaries		53
32. Feedwater and Main Steam System		10
35. All other I&C Systems		0
41. Main Generator Systems	13	9
42. Electrical Power Supply Systems		26
XX. Miscellaneous Systems		1
Total	50	176

US-296 BROWNS FERRY-3

Operator: TVA (TENNESSEE VALLEY AUTHORITY)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1114.0 MW(e)
Design Net Capacity: 1065.0 MW(e)
Design Discharge Burnup: 38000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9153.7 GW(e).h
Energy Availability Factor: 95.7%
Load Factor: 93.8%
Operating Factor: 95.7%
Energy Unavailability Factor: 4.3%
Total Off-line Time: 376 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	834.7	612.6	825.6	802.5	825.3	783.2	806.1	799.7	709.2	802.7	523.7	828.5	9153.7
EAF (%)	100.0	85.3	100.0	100.0	100.0	100.0	100.0	100.0	94.6	96.8	70.6	100.0	95.7
UCF (%)	100.0	85.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.8	70.6	100.0	96.2
LF (%)	100.7	81.8	99.6	100.0	99.6	97.6	97.3	96.5	88.4	96.8	65.3	100.0	93.8
OF (%)	100.0	85.3	100.0	99.9	100.0	100.0	100.0	100.0	94.4	98.7	68.6	100.0	95.7
EUF (%)	0.0	14.7	0.0	0.0	0.0	0.0	0.0	0.0	5.4	3.2	29.4	0.0	4.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	29.4	0.0	3.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Jul 1968	Lifetime Generation:	136077.8 GW(e).h
Date of First Criticality:	08 Aug 1976	Cumulative Energy Availability Factor:	79.4%
Date of Grid Connection:	12 Sep 1976	Cumulative Load Factor:	76.9%
Date of Commercial Operation:	01 Mar 1977	Cumulative Unit Capability Factor:	79.4%
		Cumulative Energy Unavailability Factor:	20.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	5850.9	1065.0	74.8	74.8	74.8	74.8	74.8	74.8	6499	88.5
1978	5554.3	1065.0	59.5	66.5	59.5	66.5	59.5	66.5	6225	71.1
1979	5482.5	1065.0	58.8	63.8	58.8	63.8	58.8	63.8	5704	65.1
1980	6936.1	1065.0	79.9	68.0	79.3	67.8	74.1	66.5	6949	79.1
1981	6264.8	1065.0	72.6	68.9	72.6	68.8	67.2	66.6	6358	72.6
1982	4892.8	1065.0	57.4	67.0	57.4	66.9	52.4	64.2	5022	57.3
1983	5394.3	1065.0	61.9	66.2	61.9	66.1	57.8	63.3	5417	61.8
1984	290.5	1065.0	5.7	58.5	5.7	58.4	3.1	55.6	503	5.7
1985	1526.5	1065.0	68.8	58.8	68.8	58.7	66.4	55.9	1496	69.3
1986	Data not available - Long-term shutdown									
1987	"									
1988	"									
1989	"									
1990	"									
1991	"									
1992	"									
1993	"									
1994	"									
1995	764.6	1065.0	79.5	59.1	79.5	59.0	70.4	56.1	810	79.4
1996	8803.5	1065.0	95.8	63.1	95.8	63.0	94.1	60.2	8412	95.8
1997	8523.4	1065.0	94.8	66.2	94.8	66.1	91.4	63.3	8302	94.8
1998	7884.9	1118.0	89.9	68.3	89.9	68.3	83.5	65.1	7863	89.8
1999	9730.6	1118.0	100.0	71.0	100.0	71.0	99.4	68.0	8760	100.0
2000	9097.4	1118.0	94.6	72.9	94.6	72.9	92.6	70.0	8311	94.6
2001	9803.4	1118.0	100.0	74.9	100.0	74.8	100.1	72.2	8760	100.0
2002	9260.1	1118.0	96.0	76.3	96.0	76.3	94.6	73.7	8407	96.0
2003	9325.7	1118.0	96.6	77.6	96.6	77.6	95.2	75.1	8463	96.6
2004	8701.8	1118.0	91.1	78.4	91.1	78.4	88.6	75.9	8000	91.1
2005	9153.7	1114.0	96.2	79.4	95.7	79.4	93.8	76.9	8384	95.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		236			191	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling				517	268	
D. Inspection, maintenance or repair without refuelling				18		
E. Testing of plant systems or components				5		
H. Nuclear regulatory requirements						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				3	17	
L. Human factor related		99				
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			39			
Z. Others					1	
Subtotal	0	335	39	543	482	1
Total		374			1026	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		11
14. Safety Systems		17
15. Reactor Cooling Systems		35
31. Turbine and auxiliaries	236	52
32. Feedwater and Main Steam System		24
41. Main Generator Systems		0
42. Electrical Power Supply Systems		22
XX. Miscellaneous Systems		1
Total	236	175

US-325 BRUNSWICK-1

Operator: PROGRESS (Progress Energy Corporation)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 872.0 MW(e)
Design Net Capacity: 821.0 MW(e)
Design Discharge Burnup: 27800 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7755.1 GW(e).h
Energy Availability Factor: 94.5%
Load Factor: 101.5%
Operating Factor: 94.5%
Energy Unavailability Factor: 5.5%
Total Off-line Time: 486 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	708.7	616.8	713.3	469.6	696.8	685.2	523.9	567.2	682.9	705.8	689.8	695.3	7755.1
EAF (%)	100.0	100.0	100.0	72.8	100.0	100.0	77.0	84.2	100.0	100.0	100.0	100.0	94.5
UCF (%)	100.0	100.0	100.0	72.8	100.0	100.0	77.0	84.2	100.0	100.0	100.0	100.0	94.5
LF (%)	109.2	105.3	109.9	74.8	107.4	109.1	80.8	87.4	108.8	108.6	109.9	107.2	101.5
OF (%)	100.0	100.0	100.0	72.6	100.0	100.0	77.0	84.1	100.0	100.0	100.0	100.0	94.5
EUF (%)	0.0	0.0	0.0	27.2	0.0	0.0	23.0	15.8	0.0	0.0	0.0	0.0	5.5
PUF (%)	0.0	0.0	0.0	27.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	23.0	15.8	0.0	0.0	0.0	0.0	3.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1969
Date of First Criticality: 08 Oct 1976
Date of Grid Connection: 04 Dec 1976
Date of Commercial Operation: 18 Mar 1977

Lifetime Generation: 139382.4 GW(e).h
Cumulative Energy Availability Factor: 71.6%
Cumulative Load Factor: 68.8%
Cumulative Unit Capability Factor: 71.9%
Cumulative Energy Unavailability Factor: 28.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	2515.8	790.0	43.4	43.4	43.4	43.4	43.4	43.4	3920	53.4
1978	5122.9	790.0	74.1	60.1	74.1	60.1	74.0	60.0	7624	87.0
1979	3169.2	790.0	45.8	55.1	45.8	55.1	45.8	55.0	4778	54.5
1980	3939.2	790.0	69.7	58.9	69.7	58.9	56.8	55.5	6045	68.8
1981	2574.8	790.0	49.0	56.8	49.0	56.8	37.2	51.7	4155	47.4
1982	2935.4	790.0	62.9	57.9	62.9	57.9	42.4	50.1	5428	62.0
1983	1419.1	790.0	26.4	53.3	26.4	53.3	20.5	45.8	2116	24.2
1984	5037.7	790.0	81.4	56.9	79.8	56.7	72.6	49.2	6797	77.4
1985	1942.5	790.0	38.9	54.9	38.9	54.7	28.1	46.8	3247	37.1
1986	5973.8	790.0	92.2	58.6	92.2	58.5	86.3	50.8	8068	92.1
1987	4057.9	790.0	65.6	59.3	65.6	59.1	58.6	51.6	5651	64.5
1988	4458.4	790.0	74.5	60.6	74.5	60.4	64.2	52.6	6514	74.2
1989	4193.8	790.0	64.6	60.9	64.6	60.8	60.6	53.2	5568	63.6
1990	4340.3	790.0	68.4	61.4	68.4	61.3	62.7	53.9	5909	67.5
1991	4400.3	767.0	67.3	61.8	67.3	61.7	64.4	54.6	5849	66.8
1992	1874.5	767.0	28.3	59.8	28.3	59.7	27.8	53.0	2486	28.3
1993	0.0	767.0	0.0	56.3	0.0	56.2	0.0	49.9	0	0.0
1994	5956.3	767.0	88.6	58.1	88.6	58.0	88.7	52.0	7755	88.5
1995	5780.7	767.0	84.4	59.4	84.4	59.3	86.0	53.8	7391	84.4
1996	5708.2	767.0	88.6	60.9	85.3	60.6	84.7	55.3	7490	85.3
1997	6857.0	767.0	97.7	62.6	97.7	62.4	102.1	57.5	8558	97.7
1998	6360.4	820.0	91.4	64.0	89.9	63.7	88.5	59.0	7811	89.2
1999	6998.2	820.0	99.0	65.6	96.8	65.2	97.4	60.8	8481	96.8
2000	6746.5	820.0	92.5	66.8	92.5	66.4	93.7	62.2	8122	92.5
2001	7303.1	820.0	100.0	68.1	100.0	67.8	101.7	63.8	8760	100.0
2002	6697.3	820.0	89.9	69.0	89.9	68.7	93.2	65.0	7874	89.9
2003	7701.8	872.0	98.9	70.2	98.9	69.9	100.8	66.5	8653	98.8
2004	7093.4	872.0	90.5	71.0	89.4	70.7	92.6	67.5	7853	89.4
2005	7755.1	872.0	94.5	71.9	94.5	71.6	101.5	68.8	8275	94.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		288			388	
B. Refuelling without a maintenance					43	
C. Inspection, maintenance or repair combined with refuelling				1359		
D. Inspection, maintenance or repair without refuelling	195			513		
E. Testing of plant systems or components				7	74	
H. Nuclear regulatory requirements					2	
J. Grid failure or grid unavailability						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					14	21
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						3
Subtotal	195	288	0	1879	521	29
Total		483			2429	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		18
13. Reactor Auxiliary Systems		11
14. Safety Systems		28
15. Reactor Cooling Systems		72
21. Fuel Handling and Storage Facilities		6
31. Turbine and auxiliaries		39
32. Feedwater and Main Steam System		14
41. Main Generator Systems	170	90
42. Electrical Power Supply Systems	117	51
XX. Miscellaneous Systems		12
Total	287	341

US-324 BRUNSWICK-2

Operator: PROGRESS (Progress Energy Corporation)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 811.0 MW(e)
Design Net Capacity: 821.0 MW(e)
Design Discharge Burnup: 27800 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6781.7 GW(e).h
Energy Availability Factor: 88.2%
Load Factor: 95.4%
Operating Factor: 88.2%
Energy Unavailability Factor: 11.8%
Total Off-line Time: 1037 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	651.9	531.0	64.6	325.6	702.5	652.2	699.3	498.9	678.6	674.2	663.3	639.7	6781.7
EAF (%)	100.0	100.0	9.7	72.2	100.0	100.0	100.0	78.1	100.0	100.0	100.0	100.0	88.2
UCF (%)	100.0	100.0	9.7	72.2	100.0	100.0	100.0	78.1	100.0	100.0	100.0	100.0	88.2
LF (%)	108.0	97.4	10.7	55.8	116.4	111.7	115.9	82.7	116.2	111.6	113.6	106.0	95.4
OF (%)	100.0	100.0	12.6	68.9	100.0	100.0	100.0	78.1	100.0	100.0	100.0	100.0	88.2
EUF (%)	0.0	0.0	90.3	27.8	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	11.8
PUF (%)	0.0	0.0	90.3	16.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
UCLF (%)	0.0	0.0	0.0	11.7	0.0	0.0	0.0	21.9	0.0	0.0	0.0	0.0	2.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Sep 1969	Lifetime Generation:	139658.3 GW(e).h
Date of First Criticality:	20 Mar 1975	Cumulative Energy Availability Factor:	70.2%
Date of Grid Connection:	29 Apr 1975	Cumulative Load Factor:	66.4%
Date of Commercial Operation:	03 Nov 1975	Cumulative Unit Capability Factor:	70.6%
		Cumulative Energy Unavailability Factor:	29.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	706.8	821.0	93.2	93.2	93.2	93.2	58.8	58.8	1364	93.2
1976	2486.6	789.0	35.8	44.3	35.8	44.3	35.9	39.3	4911	55.9
1977	2436.6	790.0	35.3	40.1	35.3	40.1	35.2	37.4	4872	55.6
1978	4794.6	790.0	69.3	49.3	69.3	49.3	69.3	47.4	7018	80.1
1979	3652.1	790.0	52.8	50.1	52.8	50.1	52.8	48.7	5741	65.5
1980	1864.6	790.0	38.1	47.8	38.1	47.8	26.9	44.5	3086	35.1
1981	3283.9	790.0	68.0	51.1	68.0	51.1	47.5	45.0	5800	66.2
1982	1942.1	790.0	41.4	49.7	41.4	49.7	28.1	42.6	3378	38.6
1983	3941.7	790.0	65.3	51.6	65.3	51.6	57.0	44.4	5630	64.3
1984	1429.0	790.0	28.9	49.2	28.9	49.2	20.6	41.8	2236	25.5
1985	5021.9	790.0	84.1	52.6	80.0	52.2	72.6	44.8	6983	79.7
1986	2933.1	790.0	48.5	52.2	48.5	51.9	42.4	44.6	4027	46.0
1987	5694.1	790.0	94.0	55.6	94.0	55.3	82.3	47.7	8203	93.6
1988	3929.2	790.0	62.8	56.2	62.8	55.9	56.6	48.4	5361	61.0
1989	4195.4	790.0	67.4	57.0	67.4	56.7	60.6	49.2	5763	65.8
1990	4067.4	790.0	66.1	57.6	66.1	57.3	58.8	49.8	5616	64.1
1991	3664.2	754.0	57.8	57.6	57.8	57.3	54.0	50.1	4959	56.6
1992	1315.1	754.0	25.1	55.8	25.1	55.5	19.9	48.4	2200	25.0
1993	4000.9	754.0	63.1	56.2	63.1	55.9	60.6	49.1	5525	63.1
1994	4823.2	754.0	73.5	57.0	73.5	56.8	73.0	50.3	6436	73.5
1995	6216.0	754.0	100.0	59.1	100.0	58.9	94.1	52.3	8760	100.0
1996	5188.1	754.0	86.9	60.3	82.9	60.0	78.3	53.5	7277	82.8
1997	6055.4	754.0	89.2	61.6	89.2	61.2	91.7	55.2	7816	89.2
1998	6963.5	811.0	98.9	63.3	97.7	62.9	98.0	57.1	8539	97.5
1999	6095.2	811.0	89.2	64.4	86.5	63.9	85.8	58.3	7577	86.5
2000	7055.0	811.0	98.1	65.8	98.1	65.3	99.0	60.0	8616	98.1
2001	6540.4	811.0	91.3	66.8	91.3	66.3	92.1	61.3	7996	91.3
2002	7078.6	811.0	98.3	68.0	98.3	67.5	99.6	62.7	8609	98.3
2003	7028.1	811.0	91.0	68.8	91.0	68.4	98.9	64.1	7966	90.9
2004	7756.8	900.0	98.5	70.0	98.5	69.6	98.1	65.4	8639	98.3
2005	6781.7	811.0	88.2	70.6	88.2	70.2	95.4	66.4	7724	88.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		246			707	
B. Refuelling without a maintenance					57	
C. Inspection, maintenance or repair combined with refuelling	788			1230		
D. Inspection, maintenance or repair without refuelling				414		
E. Testing of plant systems or components				15	4	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					6	34
Subtotal	788	246	0	1659	774	34
Total		1034			2467	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		4
12. Reactor I&C Systems		22
13. Reactor Auxiliary Systems		15
14. Safety Systems		41
15. Reactor Cooling Systems		281
31. Turbine and auxiliaries		98
32. Feedwater and Main Steam System	84	53
33. Circulating Water System		1
41. Main Generator Systems		35
42. Electrical Power Supply Systems	162	61
XX. Miscellaneous Systems		6
Total	246	617

US-454 BYRON-1

Operator: EXELON (Exelon Nuclear Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1194.0 MW(e)
 Design Net Capacity: 1120.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9589.7 GW(e).h
 Energy Availability Factor: 92.9%
 Load Factor: 91.7%
 Operating Factor: 92.9%
 Energy Unavailability Factor: 7.1%
 Total Off-line Time: 626 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	888.9	765.6	134.6	855.6	879.8	840.5	873.8	874.4	847.1	884.2	857.5	887.8	9589.7
EAF (%)	100.0	92.9	22.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.9
UCF (%)	100.0	92.9	22.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.9
LF (%)	100.1	95.4	15.1	99.5	99.0	97.8	98.4	98.4	98.5	99.4	99.7	99.9	91.7
OF (%)	100.0	96.3	19.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.9
EUF (%)	0.0	7.1	77.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
PUF (%)	0.0	7.1	77.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Apr 1975 Lifetime Generation: 163913.4 GW(e).h
 Date of First Criticality: 02 Feb 1985 Cumulative Energy Availability Factor: 86.2%
 Date of Grid Connection: 01 Mar 1985 Cumulative Load Factor: 81.8%
 Date of Commercial Operation: 16 Sep 1985 Cumulative Unit Capability Factor: 86.3%
 Cumulative Energy Unavailability Factor: 13.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	1012.9	1129.0	46.8	46.8	46.8	46.8	34.9	34.9	1191	46.4
1986	7396.0	1129.0	89.1	79.5	89.1	79.5	74.8	65.7	7760	88.6
1987	5355.7	1120.0	69.6	75.2	68.7	74.8	54.3	60.8	6005	68.6
1988	6303.7	1105.0	72.9	74.5	72.9	74.2	64.5	61.9	6393	72.8
1989	8945.5	1105.0	99.7	80.3	99.7	80.1	92.4	68.9	8737	99.7
1990	6951.7	1105.0	80.3	80.3	80.3	80.1	71.8	69.5	7059	80.6
1991	6318.1	1105.0	81.3	80.5	81.3	80.3	65.3	68.8	7148	81.6
1992	8986.4	1105.0	99.3	83.0	99.3	82.9	92.6	72.0	8723	99.3
1993	7366.9	1105.0	80.9	82.8	80.9	82.7	76.1	72.5	7104	81.1
1994	6801.6	1105.0	81.2	82.6	81.2	82.5	70.3	72.3	7136	81.5
1995	7706.5	1105.0	82.3	82.6	82.3	82.5	79.6	73.0	7228	82.5
1996	6871.1	1105.0	74.7	81.9	74.7	81.8	70.8	72.8	6588	75.0
1997	7161.7	1105.0	76.8	81.5	76.8	81.4	74.0	72.9	6737	76.9
1998	7804.6	1105.0	81.5	81.5	81.5	81.4	80.6	73.5	7145	81.6
1999	8908.5	1105.0	90.6	82.1	90.6	82.1	92.0	74.8	7944	90.7
2000	9291.9	1105.0	94.2	82.9	94.2	82.8	95.7	76.1	8284	94.3
2001	10389.9	1163.0	100.0	84.0	100.0	83.9	104.1	77.9	8760	100.0
2002	9827.8	1163.0	94.1	84.6	94.1	84.5	96.5	79.0	8256	94.2
2003	9858.8	1163.0	94.0	85.1	94.0	85.1	96.8	80.0	8248	94.2
2004	10381.3	1152.0	100.0	85.9	100.0	85.9	102.2	81.2	8784	100.0
2005	9589.7	1194.0	92.9	86.3	92.9	86.2	91.7	81.8	8135	92.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					79	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	624			823		
D. Inspection, maintenance or repair without refuelling				202		
H. Nuclear regulatory requirements					3	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				4	6	3
Subtotal	624	0	0	1029	98	3
Total	624			1130		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		1
15. Reactor Cooling Systems		8
21. Fuel Handling and Storage Facilities		24
31. Turbine and auxiliaries		18
32. Feedwater and Main Steam System		11
41. Main Generator Systems		0
42. Electrical Power Supply Systems		5
Total	0	70

US-455 BYRON-2

Operator: EXELON (Exelon Nuclear Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1162.0 MW(e)
 Design Net Capacity: 1120.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9521.0 GW(e).h
 Energy Availability Factor: 95.1%
 Load Factor: 93.5%
 Operating Factor: 95.1%
 Energy Unavailability Factor: 4.9%
 Total Off-line Time: 432 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	864.0	780.6	864.9	827.1	864.7	823.9	852.5	854.2	653.7	425.2	840.5	869.5	9521.0
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	61.4	100.0	100.0	95.1
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.0	61.4	100.0	100.0	95.1
LF (%)	99.9	100.0	100.0	98.9	100.0	98.5	98.6	98.8	78.1	49.2	100.5	100.6	93.5
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	83.2	58.3	100.0	100.0	95.1
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	38.6	0.0	0.0	4.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	34.7	0.0	0.0	4.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Apr 1975 Lifetime Generation: 156952.8 GW(e).h
 Date of First Criticality: 09 Jan 1987 Cumulative Energy Availability Factor: 91.1%
 Date of Grid Connection: 06 Feb 1987 Cumulative Load Factor: 86.2%
 Date of Commercial Operation: 21 Aug 1987 Cumulative Unit Capability Factor: 91.1%
 Cumulative Energy Unavailability Factor: 8.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	1970.9	1129.0	100.0	100.0	100.0	100.0	47.5	47.5	2310	62.9
1988	6357.9	1105.0	95.9	97.1	95.9	97.1	65.1	59.8	8419	95.8
1989	6069.5	1105.0	79.5	89.9	79.5	89.9	62.7	61.0	6981	79.7
1990	6052.7	1105.0	75.0	85.5	75.0	85.5	62.5	61.5	6598	75.3
1991	8772.7	1105.0	96.9	88.1	96.9	88.1	90.6	68.0	8489	96.9
1992	7000.3	1105.0	79.8	86.6	79.8	86.6	72.1	68.8	7027	80.0
1993	7622.5	1105.0	84.3	86.2	84.3	86.2	78.7	70.3	7399	84.5
1994	9504.2	1105.0	99.4	88.0	99.4	88.0	98.2	74.1	8704	99.4
1995	8183.8	1105.0	87.9	88.0	87.9	88.0	84.5	75.3	7710	88.0
1996	7830.6	1105.0	82.0	87.3	82.0	87.3	80.7	75.9	7225	82.3
1997	9102.9	1105.0	95.2	88.1	95.2	88.1	94.0	77.6	8344	95.3
1998	8592.8	1105.0	89.5	88.2	89.5	88.2	88.8	78.6	7855	89.7
1999	9174.1	1105.0	93.3	88.6	93.3	88.6	94.8	79.9	8182	93.4
2000	10005.4	1105.0	99.3	89.4	99.3	89.4	103.1	81.6	8724	99.3
2001	9826.7	1131.0	95.3	89.8	95.3	89.8	100.1	82.9	8353	95.4
2002	9537.6	1131.0	92.3	90.0	92.3	90.0	96.3	83.8	8119	92.7
2003	10298.7	1131.0	100.0	90.6	100.0	90.6	103.9	85.1	8760	100.0
2004	9623.2	1125.0	95.0	90.9	95.0	90.9	97.2	85.8	8360	95.2
2005	9521.0	1162.0	95.1	91.1	95.1	91.1	93.5	86.2	8328	95.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		29		9	90	
C. Inspection, maintenance or repair combined with refuelling	402			617		
D. Inspection, maintenance or repair without refuelling				38		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					9	
Subtotal	402	29	0	664	99	0
Total		431			763	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	29	4
15. Reactor Cooling Systems		12
16. Steam generation systems		22
17. Safety I&C Systems (excluding reactor I&C)		4
21. Fuel Handling and Storage Facilities		3
32. Feedwater and Main Steam System		4
35. All other I&C Systems		2
41. Main Generator Systems		11
42. Electrical Power Supply Systems		1
Total	29	63

US-483 CALLAWAY-1

Operator: AMEREN (AMEREN)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1137.0 MW(e)
 Design Net Capacity: 1171.0 MW(e)
 Design Discharge Burnup: 42000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8021.2 GW(e).h
 Energy Availability Factor: 79.6%
 Load Factor: 80.5%
 Operating Factor: 79.5%
 Energy Unavailability Factor: 20.4%
 Total Off-line Time: 1794 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	800.8	787.8	699.5	774.0	864.2	757.1	852.5	853.7	431.3	0.0	282.8	917.6	8021.2
EAF (%)	93.8	100.0	80.6	94.9	100.0	94.9	100.0	100.0	53.3	0.0	38.1	100.0	79.6
UCF (%)	93.8	100.0	80.7	94.9	100.0	94.9	100.0	100.0	53.3	0.0	38.1	100.0	79.6
LF (%)	94.7	103.1	82.7	94.5	102.2	92.5	100.8	100.9	52.7	0.0	34.5	108.5	80.5
OF (%)	93.7	100.0	81.3	93.8	100.0	94.9	100.0	100.0	53.3	0.0	38.1	100.0	79.5
EUF (%)	6.2	0.0	19.4	5.1	0.0	5.1	0.0	0.0	46.7	100.0	61.9	0.0	20.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	100.0	61.9	0.0	17.4
UCLF (%)	6.2	0.0	19.4	5.1	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	3.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1975 Lifetime Generation: 178651.3 GW(e).h
 Date of First Criticality: 02 Oct 1984 Cumulative Energy Availability Factor: 87.7%
 Date of Grid Connection: 24 Oct 1984 Cumulative Load Factor: 86.1%
 Date of Commercial Operation: 19 Dec 1984 Cumulative Unit Capability Factor: 87.7%
 Cumulative Energy Unavailability Factor: 12.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	323.0	1185.0	100.0	100.0	100.0	100.0	90.0	90.0	303	100.0
1985	8045.8	1120.0	90.0	90.3	90.0	90.3	82.0	82.3	7882	90.0
1986	7199.1	1120.0	81.6	86.0	81.6	86.0	73.4	77.9	7121	81.3
1987	6321.8	1120.0	70.0	80.8	70.0	80.8	64.4	73.5	6141	70.1
1988	8144.2	1120.0	92.5	83.7	92.5	83.7	82.8	75.8	7413	84.4
1989	8350.9	1118.0	84.0	83.8	84.0	83.8	85.3	77.7	7368	84.1
1990	8005.1	1125.0	81.8	83.4	81.8	83.4	81.2	78.3	7167	81.8
1991	9979.4	1125.0	99.6	85.7	99.6	85.7	101.3	81.5	8726	99.6
1992	8094.6	1125.0	82.0	85.3	82.0	85.3	81.9	81.6	7204	82.0
1993	8390.0	1120.0	85.5	85.3	85.5	85.3	85.5	82.0	7498	85.6
1994	10006.5	1115.0	99.6	86.7	99.6	86.7	102.4	84.0	8726	99.6
1995	8252.8	1125.0	84.0	86.5	84.0	86.5	83.7	84.0	7356	84.0
1996	8890.4	1125.0	89.6	86.7	89.6	86.7	90.0	84.5	7864	89.5
1997	8954.6	1125.0	100.0	87.8	100.0	87.8	90.9	85.0	8760	100.0
1998	8516.8	1125.0	90.4	87.9	90.4	87.9	86.4	85.1	7913	90.3
1999	8596.4	1125.0	87.8	87.9	87.8	87.9	87.2	85.2	7707	88.0
2000	9991.8	1125.0	100.0	88.7	99.7	88.7	101.1	86.2	8762	99.7
2001	8384.1	1125.0	85.4	88.5	85.4	88.5	85.1	86.2	7500	85.6
2002	8386.6	1125.0	85.2	88.3	85.2	88.3	85.1	86.1	7484	85.4
2003	9699.7	1125.0	95.8	88.7	95.8	88.7	98.4	86.8	8397	95.9
2004	7842.4	1125.0	77.9	88.2	77.9	88.2	79.4	86.4	6856	78.1
2005	8021.2	1137.0	79.6	87.7	79.6	87.7	80.5	86.1	6966	79.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		228			140	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	1526			679		
D. Inspection, maintenance or repair without refuelling				100	1	
E. Testing of plant systems or components				0		
H. Nuclear regulatory requirements					0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					7	1
L. Human factor related					2	
Z. Others		36				
Subtotal	1526	264	0	779	158	1
Total		1790			938	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		11
15. Reactor Cooling Systems		16
16. Steam generation systems		0
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		15
32. Feedwater and Main Steam System		32
33. Circulating Water System		16
35. All other I&C Systems	46	0
41. Main Generator Systems		11
42. Electrical Power Supply Systems		22
XX. Miscellaneous Systems	181	
Total	227	124

US-317 CALVERT CLIFFS-1

Operator: CONST (CONSTELLATION NUCLEAR GROUP)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 845.0 MW(e)
Design Net Capacity: 845.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7626.3 GW(e).h
Energy Availability Factor: 99.6%
Load Factor: 103.0%
Operating Factor: 99.6%
Energy Unavailability Factor: 0.4%
Total Off-line Time: 35 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	669.1	602.5	629.1	633.7	656.8	619.8	630.3	628.7	611.9	646.0	637.8	660.5	7626.3
EAF (%)	100.0	100.0	95.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6
UCF (%)	100.0	100.0	95.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6
LF (%)	106.4	106.1	100.1	104.2	104.5	101.9	100.3	100.0	100.6	102.6	104.8	105.1	103.0
OF (%)	100.0	100.0	95.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6
EUF (%)	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1968
Date of First Criticality: 07 Oct 1974
Date of Grid Connection: 03 Jan 1975
Date of Commercial Operation: 08 May 1975

Lifetime Generation: 169986.7 GW(e).h
Cumulative Energy Availability Factor: 75.5%
Cumulative Load Factor: 76.3%
Cumulative Unit Capability Factor: 75.9%
Cumulative Energy Unavailability Factor: 24.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	3641.1	800.0	77.2	77.2	77.2	77.2	77.4	77.4	4807	81.8
1976	6303.9	800.0	89.7	84.7	89.7	84.7	89.7	84.8	8356	95.1
1977	4882.0	807.0	68.6	78.6	68.6	78.6	69.1	78.9	6313	72.1
1978	4676.1	810.0	65.9	75.2	65.9	75.2	65.9	75.3	6150	70.2
1979	4194.1	810.0	59.1	71.7	59.1	71.7	59.1	71.8	6154	70.3
1980	4542.5	810.0	77.0	72.6	72.2	71.8	63.8	70.4	6349	72.3
1981	6109.6	821.0	86.4	74.7	86.4	74.0	85.0	72.6	7544	86.1
1982	5362.1	825.0	73.9	74.6	73.9	74.0	74.2	72.8	6419	73.3
1983	5570.7	825.0	77.0	74.9	77.0	74.4	77.1	73.3	6719	76.7
1984	6221.6	825.0	86.7	76.1	84.3	75.4	85.9	74.6	7422	84.5
1985	4359.7	825.0	58.8	74.5	58.8	73.8	60.3	73.3	5186	59.2
1986	5830.7	825.0	78.2	74.8	78.2	74.2	80.7	73.9	6855	78.3
1987	5268.5	825.0	70.9	74.5	70.9	73.9	72.9	73.8	6233	71.2
1988	5164.2	825.0	71.0	74.2	71.0	73.7	71.3	73.7	6263	71.3
1989	1345.6	825.0	18.8	70.4	18.8	69.9	18.6	69.9	1727	19.7
1990	1344.4	825.0	20.1	67.2	20.1	66.7	18.6	66.6	1840	21.0
1991	5465.3	825.0	75.5	67.7	75.5	67.3	75.6	67.1	6638	75.8
1992	4113.9	825.0	55.6	67.0	55.6	66.6	56.8	66.5	4927	56.1
1993	7334.9	830.0	98.2	68.7	98.2	68.3	101.2	68.4	8599	98.2
1994	4686.4	835.0	64.6	68.5	64.6	68.1	64.2	68.2	5656	64.6
1995	7030.2	835.0	96.9	69.9	96.9	69.5	96.1	69.6	8487	96.9
1996	4846.9	835.0	65.7	69.7	65.7	69.3	66.1	69.4	5762	65.6
1997	7158.4	835.0	95.9	70.9	95.9	70.5	97.9	70.7	8400	95.9
1998	6116.8	835.0	82.0	71.3	82.0	71.0	83.6	71.2	7184	82.0
1999	6994.3	835.0	96.8	72.4	94.0	72.0	95.6	72.2	8231	94.0
2000	6449.6	825.0	86.2	72.9	86.2	72.5	88.7	72.9	7580	86.3
2001	7454.8	825.0	99.6	73.9	99.6	73.5	103.2	74.0	8727	99.6
2002	4645.2	825.0	62.8	73.5	62.8	73.2	64.3	73.7	5506	62.9
2003	7532.5	825.0	100.0	74.4	100.0	74.1	104.2	74.7	8760	100.0
2004	6974.0	870.0	91.5	75.0	91.5	74.7	93.3	75.4	8034	91.5
2005	7626.3	845.0	99.6	75.9	99.6	75.5	103.0	76.3	8726	99.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		33			314	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	1022					
D. Inspection, maintenance or repair without refuelling	539					
E. Testing of plant systems or components	51					
H. Nuclear regulatory requirements					6	22
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					71	14
Subtotal	0	33	0	1612	400	36
Total		33			2048	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		12
12. Reactor I&C Systems		10
13. Reactor Auxiliary Systems		23
14. Safety Systems		40
15. Reactor Cooling Systems		69
16. Steam generation systems		0
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries	33	69
32. Feedwater and Main Steam System		53
33. Circulating Water System		1
35. All other I&C Systems		2
41. Main Generator Systems		2
42. Electrical Power Supply Systems		15
XX. Miscellaneous Systems		0
Total	33	297

US-318 CALVERT CLIFFS-2

Operator: CONST (CONSTELLATION NUCLEAR GROUP)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 858.0 MW(e)
Design Net Capacity: 845.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7114.3 GW(e).h
Energy Availability Factor: 94.2%
Load Factor: 94.6%
Operating Factor: 94.2%
Energy Unavailability Factor: 5.8%
Total Off-line Time: 512 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	656.6	446.9	321.5	636.4	653.6	622.8	627.2	626.1	608.9	640.0	623.0	651.3	7114.3
EAF (%)	100.0	75.0	54.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2
UCF (%)	100.0	75.0	54.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2
LF (%)	102.9	77.5	50.4	103.0	102.4	100.8	98.2	98.1	98.6	100.1	100.9	102.0	94.6
OF (%)	100.0	78.1	51.1	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.2
EUF (%)	0.0	25.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
PUF (%)	0.0	25.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1968
Date of First Criticality: 30 Nov 1976
Date of Grid Connection: 07 Dec 1976
Date of Commercial Operation: 01 Apr 1977

Lifetime Generation: 166995.3 GW(e).h
Cumulative Energy Availability Factor: 79.3%
Cumulative Load Factor: 79.1%
Cumulative Unit Capability Factor: 79.4%
Cumulative Energy Unavailability Factor: 20.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	4541.5	810.0	100.0	100.0	100.0	100.0	85.0	85.0	5676	86.0
1978	5226.6	810.0	72.8	84.5	72.8	84.5	73.7	78.5	7129	81.4
1979	5489.0	812.0	76.6	81.6	76.6	81.6	77.2	78.0	6792	77.5
1980	6412.3	825.0	98.9	86.3	96.2	85.6	88.5	80.9	8425	95.9
1981	5416.0	825.0	80.1	85.0	80.1	84.4	74.9	79.6	7005	80.0
1982	5005.2	825.0	74.2	83.1	74.2	82.6	69.3	77.8	6496	74.2
1983	6113.1	825.0	86.4	83.6	86.4	83.2	84.6	78.8	7567	86.4
1984	5338.4	825.0	73.7	82.3	73.7	82.0	73.7	78.1	6502	74.0
1985	5608.0	825.0	77.4	81.7	77.4	81.4	77.6	78.1	6789	77.5
1986	7006.7	825.0	96.0	83.2	96.0	82.9	97.0	80.0	8405	95.9
1987	4832.0	825.0	66.3	81.6	66.3	81.4	66.9	78.8	5859	66.9
1988	6602.7	825.0	88.8	82.2	88.8	82.0	91.1	79.8	7813	88.9
1989	1448.5	825.0	18.3	77.2	18.3	77.0	20.0	75.1	1731	19.8
1990	0.0	825.0	0.0	71.6	0.0	71.4	0.0	69.7	0	0.0
1991	3635.6	825.0	51.3	70.2	51.3	70.0	50.3	68.3	4515	51.5
1992	6590.3	825.0	89.3	71.4	89.3	71.3	90.9	69.8	7855	89.4
1993	4975.2	830.0	67.4	71.2	67.4	71.0	68.6	69.7	5939	67.8
1994	6576.5	840.0	90.6	72.3	90.6	72.1	89.8	70.9	7925	90.5
1995	5911.1	840.0	81.4	72.8	81.4	72.6	80.3	71.4	7121	81.3
1996	7247.7	840.0	97.5	74.1	97.5	73.9	98.2	72.8	8561	97.5
1997	5979.9	840.0	81.1	74.4	81.1	74.3	81.3	73.2	7100	81.1
1998	7225.5	840.0	95.8	75.4	95.8	75.3	98.2	74.3	8393	95.8
1999	6332.7	840.0	84.5	75.8	84.5	75.7	86.1	74.9	7400	84.5
2000	7391.0	835.0	98.1	76.8	98.1	76.6	100.7	76.0	8614	98.1
2001	6201.5	835.0	83.3	77.0	83.3	76.9	84.8	76.3	7297	83.3
2002	7480.6	835.0	100.0	77.9	100.0	77.8	102.3	77.3	8760	100.0
2003	6156.9	835.0	81.4	78.0	81.4	77.9	84.2	77.6	7124	81.3
2004	7552.2	858.0	99.4	78.8	99.4	78.7	101.3	78.5	8729	99.4
2005	7114.3	858.0	94.2	79.4	94.2	79.3	94.6	79.1	8249	94.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					251	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	510			1376		
D. Inspection, maintenance or repair without refuelling				94		
E. Testing of plant systems or components				11	1	
H. Nuclear regulatory requirements					1	7
J. Grid failure or grid unavailability					0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					13	
Subtotal	510	0	0	1481	281	7
Total	510			1769		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		16
13. Reactor Auxiliary Systems		29
14. Safety Systems		2
15. Reactor Cooling Systems		75
16. Steam generation systems		2
31. Turbine and auxiliaries		30
32. Feedwater and Main Steam System		49
35. All other I&C Systems		3
41. Main Generator Systems		18
42. Electrical Power Supply Systems		20
Total	0	246

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

2. Production Summary 2005

Net Energy Production:	9177.3 GW(e).h
Energy Availability Factor:	91.7%
Load Factor:	92.8%
Operating Factor:	91.6%
Energy Unavailability Factor:	8.3%
Total Off-line Time:	734 hours

[illegible]

4. 2005 Summary of Operation

Date of Construction Start:	01 May 1974	Lifetime Generation:	166170.6 GW(e).h
Date of First Criticality:	07 Jan 1985	Cumulative Energy Availability Factor:	83.1%
Date of Grid Connection:	22 Jan 1985	Cumulative Load Factor:	81.7%
Date of Commercial Operation:	29 Jun 1985	Cumulative Unit Capability Factor:	83.1%
		Cumulative Energy Unavailability Factor:	16.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	3440.5	1145.0	78.8	78.8	78.8	78.8	67.3	67.3	3513	78.7
1986	5199.1	1145.0	58.9	65.6	58.9	65.6	51.8	57.1	5151	58.8
1987	6406.0	1145.0	68.0	66.6	68.0	66.6	63.9	59.8	5924	67.6
1988	7640.0	1129.0	79.8	70.3	79.8	70.3	77.0	64.6	7003	79.7
1989	7775.4	1129.0	84.7	73.4	84.7	73.4	78.6	67.7	7278	83.1
1990	6900.5	1129.0	71.7	73.1	71.7	73.1	69.8	68.1	6277	71.7
1991	6681.1	1129.0	71.1	72.8	71.1	72.8	67.6	68.0	6227	71.1
1992	7050.9	1129.0	72.1	72.7	72.1	72.7	71.1	68.4	6338	72.2
1993	7597.1	1129.0	79.0	73.5	79.0	73.5	76.8	69.4	6916	78.9
1994	9778.8	1129.0	99.6	76.2	99.6	76.2	98.9	72.5	8722	99.6
1995	8721.6	1129.0	88.1	77.3	88.1	77.3	88.2	74.0	7712	88.0
1996	6341.1	1129.0	66.2	76.4	66.2	76.4	63.9	73.1	5806	66.1
1997	9192.5	1129.0	90.7	77.5	90.7	77.5	92.9	74.7	7966	90.9
1998	8903.7	1129.0	90.5	78.5	90.5	78.5	90.0	75.8	7923	90.4
1999	9073.7	1129.0	91.2	79.3	91.2	79.3	91.7	76.9	7987	91.2
2000	8923.0	1129.0	89.3	80.0	89.3	80.0	90.0	77.8	7844	89.3
2001	9977.0	1129.0	99.6	81.2	99.6	81.2	100.9	79.2	8722	99.6
2002	9481.6	1129.0	94.2	81.9	94.2	81.9	95.9	80.1	8250	94.2
2003	8198.5	1129.0	81.7	81.9	81.7	81.9	82.9	80.3	7157	81.7
2004	9711.1	1129.0	98.0	82.7	98.0	82.7	97.9	81.2	8608	98.0
2005	9177.3	1129.0	91.7	83.1	91.7	83.1	92.8	81.7	8027	91.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				2	347	
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling	729			955		
D. Inspection, maintenance or repair without refuelling				67		
E. Testing of plant systems or components	1			2	5	
H. Nuclear regulatory requirements					5	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				3	7	
Subtotal	730	0	0	1029	371	0
Total	730			1400		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		7
12. Reactor I&C Systems		35
13. Reactor Auxiliary Systems		13
14. Safety Systems		27
15. Reactor Cooling Systems		122
16. Steam generation systems		1
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System		74
33. Circulating Water System		14
41. Main Generator Systems		13
42. Electrical Power Supply Systems		12
XX. Miscellaneous Systems		10
Total	0	345

US-414 CATAWBA-2**Operator:** DUKE (DUKE POWER CO.)**Contractor:** WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1129.0 MW(e)

Design Net Capacity: 1145.0 MW(e)

Design Discharge Burnup: 40200 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10099.1 GW(e).h

Energy Availability Factor: 99.7%

Load Factor: 102.1%

Operating Factor: 99.7%

Energy Unavailability Factor: 0.3%

Total Off-line Time: 24 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	869.5	786.4	869.9	836.5	817.7	825.7	851.5	850.7	827.5	863.0	836.8	864.0	10099.1
EAF (%)	100.0	100.0	100.0	100.0	96.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7
UCF (%)	100.0	100.0	100.0	100.0	96.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7
LF (%)	103.5	103.6	103.6	102.9	97.3	101.6	101.4	101.3	101.8	102.6	102.9	102.9	102.1
OF (%)	100.0	100.0	100.0	99.9	96.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7
EUF (%)	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 May 1974 **Lifetime Generation:** 158672.0 GW(e).h

Date of First Criticality: 08 May 1986 **Cumulative Energy Availability Factor:** 84.2%

Date of Grid Connection: 18 May 1986 **Cumulative Load Factor:** 82.7%

Date of Commercial Operation: 19 Aug 1986 **Cumulative Unit Capability Factor:** 84.2%

Cumulative Energy Unavailability Factor: 15.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	1324.2	1145.0	41.8	41.8	41.8	41.8	35.7	35.7	1325	40.9
1987	7169.5	1145.0	80.2	69.8	80.2	69.8	71.5	61.8	7014	80.1
1988	5435.0	1129.0	71.8	70.6	71.8	70.6	54.8	58.9	5571	63.4
1989	6527.1	1129.0	72.0	71.0	72.0	71.0	66.0	61.0	6302	71.9
1990	6503.0	1129.0	69.0	70.6	69.0	70.6	65.8	62.1	5984	68.3
1991	7274.9	1129.0	75.6	71.5	75.6	71.5	73.6	64.2	6621	75.6
1992	9273.5	1129.0	94.3	75.1	94.3	75.1	93.5	68.8	8281	94.3
1993	8177.4	1129.0	82.6	76.1	82.6	76.1	82.7	70.7	7233	82.6
1994	7691.7	1129.0	79.7	76.5	79.7	76.5	77.8	71.5	6978	79.7
1995	7960.2	1129.0	80.8	77.0	80.8	77.0	80.5	72.5	7074	80.8
1996	9233.6	1129.0	92.3	78.5	92.3	78.5	93.1	74.5	8107	92.3
1997	8593.4	1129.0	87.1	79.2	87.1	79.2	86.9	75.6	7623	87.0
1998	8672.3	1129.0	86.5	79.8	86.5	79.8	87.7	76.5	7580	86.5
1999	8855.4	1129.0	88.2	80.4	88.2	80.4	89.5	77.5	7727	88.2
2000	8981.4	1129.0	90.3	81.1	90.3	81.1	90.6	78.4	7928	90.3
2001	8574.1	1129.0	85.7	81.4	85.7	81.4	86.7	78.9	7507	85.7
2002	10172.3	1129.0	100.0	82.6	100.0	82.6	102.9	80.4	8760	100.0
2003	9318.2	1129.0	92.7	83.1	92.7	83.1	94.2	81.2	8117	92.7
2004	8835.7	1129.0	87.4	83.4	87.4	83.4	89.1	81.6	7672	87.3
2005	10099.1	1129.0	99.7	84.2	99.7	84.2	102.1	82.7	8737	99.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		22		17	417	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				806		
D. Inspection, maintenance or repair without refuelling				70	0	
E. Testing of plant systems or components				4	2	
H. Nuclear regulatory requirements					5	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	13	
Subtotal	0	22	0	897	439	0
Total		22			1336	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		30
14. Safety Systems		10
15. Reactor Cooling Systems		58
16. Steam generation systems		6
17. Safety I&C Systems (excluding reactor I&C)		17
31. Turbine and auxiliaries	22	19
32. Feedwater and Main Steam System		104
41. Main Generator Systems		144
42. Electrical Power Supply Systems		36
Total	22	430

US-461 CLINTON-1

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1026.0 MW(e)
Design Net Capacity: 950.0 MW(e)
Design Discharge Burnup: 36000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8688.7 GW(e).h
Energy Availability Factor: 97.0%
Load Factor: 96.7%
Operating Factor: 97.0%
Energy Unavailability Factor: 3.0%
Total Off-line Time: 264 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	729.8	494.3	600.3	727.1	779.6	755.5	780.9	769.5	740.9	784.4	757.1	769.1	8688.7
EAF (%)	100.0	75.0	87.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0
UCF (%)	100.0	75.0	87.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0
LF (%)	95.6	71.7	78.6	98.4	102.1	102.3	102.3	100.8	100.3	102.6	102.5	100.8	96.7
OF (%)	100.0	76.8	85.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0
EUF (%)	0.0	25.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	25.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Oct 1975
Date of First Criticality: 27 Feb 1987
Date of Grid Connection: 24 Apr 1987
Date of Commercial Operation: 24 Nov 1987

Lifetime Generation: 102160.6 GW(e).h
Cumulative Energy Availability Factor: 71.0%
Cumulative Load Factor: 67.0%
Cumulative Unit Capability Factor: 71.0%
Cumulative Energy Unavailability Factor: 29.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987	684.1	933.0	100.0	100.0	100.0	100.0	50.1	50.1	898	61.3
1988	5860.7	930.0	82.5	85.0	82.5	85.0	71.7	68.6	7244	82.5
1989	2861.9	946.0	45.1	66.6	45.1	66.6	35.1	53.2	3947	45.1
1990	3596.6	930.0	52.6	62.2	52.6	62.2	44.1	50.3	4604	52.6
1991	6048.0	930.0	79.1	66.2	79.1	66.2	74.2	56.1	6927	79.1
1992	4935.3	930.0	66.3	66.3	66.3	66.3	60.4	56.9	5824	66.3
1993	5879.2	930.0	77.1	68.0	77.1	68.0	72.2	59.4	6750	77.1
1994	7410.3	930.0	93.8	71.6	93.8	71.6	91.0	63.8	8217	93.8
1995	6109.2	930.0	81.6	72.8	81.6	72.8	75.0	65.1	7140	81.5
1996	5312.9	930.0	66.5	72.1	66.5	72.1	65.0	65.1	5833	66.4
1997	0.0	930.0	0.0	65.1	0.0	65.0	0.0	58.7	0	0.0
1998	0.0	930.0	0.0	59.2	0.0	59.2	0.0	53.5	0	0.0
1999	4704.2	930.0	60.2	59.3	60.2	59.3	57.7	53.8	5270	60.2
2000	6888.8	930.0	85.9	61.3	85.9	61.3	84.3	56.1	7542	85.9
2001	7877.2	930.0	97.8	63.9	97.8	63.9	96.7	59.0	8565	97.8
2002	7657.5	1022.0	89.8	65.7	89.8	65.7	88.8	61.1	7805	89.1
2003	8700.8	1022.0	98.6	67.9	98.6	67.9	97.2	63.5	8634	98.6
2004	8000.4	1022.0	91.5	69.4	90.0	69.3	89.1	65.1	7911	90.1
2005	8688.7	1026.0	97.0	71.0	97.0	71.0	96.7	67.0	8497	97.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		262			374	
B. Refuelling without a maintenance					22	
C. Inspection, maintenance or repair combined with refuelling	1893					
D. Inspection, maintenance or repair without refuelling	222					
E. Testing of plant systems or components	3					
H. Nuclear regulatory requirements					10	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					65	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						7
Subtotal	0	262	0	2118	471	7
Total		262			2596	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		7
14. Safety Systems		10
15. Reactor Cooling Systems		111
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries	210	37
32. Feedwater and Main Steam System	51	25
41. Main Generator Systems		4
42. Electrical Power Supply Systems		27
Total	261	223

US-397 COLUMBIA

Operator: ENERGINW (Energy Northwest)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1108.0 MW(e)
Design Net Capacity: 1100.0 MW(e)
Design Discharge Burnup: 42000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8242.3 GW(e).h
Energy Availability Factor: 86.1%
Load Factor: 84.9%
Operating Factor: 86.0%
Energy Unavailability Factor: 13.9%
Total Off-line Time: 1224 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	829.3	736.8	816.1	782.3	142.6	76.0	769.1	826.4	801.9	835.6	781.7	844.4	8242.3
EAF (%)	100.0	100.0	100.0	100.0	19.4	16.9	96.8	100.0	100.0	100.0	100.0	100.0	86.1
UCF (%)	100.0	100.0	100.0	100.0	19.4	16.9	96.8	100.0	100.0	100.0	100.0	100.0	86.1
LF (%)	100.6	99.0	99.0	98.1	17.3	9.5	93.3	100.2	100.5	101.2	98.0	102.4	84.9
OF (%)	100.0	100.0	100.0	99.9	19.4	18.8	94.9	100.0	100.0	100.0	100.0	100.0	86.0
EUF (%)	0.0	0.0	0.0	0.0	80.6	83.1	3.2	0.0	0.0	0.0	0.0	0.0	13.9
PUF (%)	0.0	0.0	0.0	0.0	80.6	32.3	0.0	0.0	0.0	0.0	0.0	0.0	9.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	50.8	3.2	0.0	0.0	0.0	0.0	0.0	4.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Aug 1972
Date of First Criticality: 19 Jan 1984
Date of Grid Connection: 27 May 1984
Date of Commercial Operation: 13 Dec 1984

Lifetime Generation: 141355.3 GW(e).h
Cumulative Energy Availability Factor: 75.5%
Cumulative Load Factor: 69.1%
Cumulative Unit Capability Factor: 76.4%
Cumulative Energy Unavailability Factor: 24.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	410.4	1103.0	90.5	90.5	90.5	90.5	84.6	84.6	399	90.7
1985	5176.4	1095.0	77.1	77.7	77.1	77.7	53.7	55.2	6624	75.6
1986	5183.2	1095.0	74.1	76.0	74.1	76.0	54.0	54.6	6133	70.0
1987	5398.0	1095.0	67.9	73.3	67.9	73.3	56.3	55.2	5979	68.3
1988	6000.4	1095.0	68.2	72.1	68.2	72.1	62.4	56.9	6020	68.5
1989	6127.9	1095.0	76.1	72.9	76.1	72.9	63.9	58.3	6680	76.3
1990	5791.3	1095.0	65.3	71.6	65.3	71.6	60.4	58.7	5752	65.7
1991	4272.5	1085.0	47.1	68.2	47.1	68.2	44.7	56.7	4194	47.9
1992	5705.4	1085.0	62.0	67.4	62.0	67.4	59.9	57.1	5505	62.7
1993	7142.0	1086.0	77.2	68.5	77.2	68.5	73.6	58.9	6757	77.1
1994	6753.8	1086.0	73.7	69.0	73.7	69.0	71.0	60.1	6500	74.2
1995	6948.0	1099.0	76.0	69.6	76.0	69.6	72.7	61.3	6680	76.3
1996	5562.6	1107.0	79.7	70.5	68.3	69.5	57.2	60.9	5999	68.3
1997	6129.9	1107.0	77.4	71.0	71.3	69.7	63.2	61.1	6248	71.3
1998	6922.8	1107.0	72.8	71.1	72.8	69.9	71.4	61.8	6373	72.8
1999	6099.7	1107.0	68.5	71.0	68.5	69.8	62.9	61.9	6018	68.7
2000	8605.2	1107.0	95.4	72.5	95.4	71.4	88.5	63.6	8385	95.5
2001	8257.7	1107.0	86.1	73.3	86.1	72.3	85.2	64.9	7553	86.2
2002	8981.3	1107.0	97.4	74.6	97.4	73.7	92.6	66.4	8528	97.4
2003	7614.9	1107.0	80.4	74.9	80.4	74.0	78.5	67.0	7039	80.4
2004	8981.6	1107.0	93.6	75.9	93.6	75.0	92.4	68.3	8222	93.6
2005	8242.3	1108.0	86.1	76.4	86.1	75.5	84.9	69.1	7537	86.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		389			284	
B. Refuelling without a maintenance					17	
C. Inspection, maintenance or repair combined with refuelling	831			1150		
D. Inspection, maintenance or repair without refuelling				135		
E. Testing of plant systems or components	1			29	0	
H. Nuclear regulatory requirements					47	
J. Grid failure or grid unavailability						69
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				84	155	
L. Human factor related					6	
Subtotal	832	389	0	1398	509	69
Total		1221			1976	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		1
13. Reactor Auxiliary Systems		3
14. Safety Systems		20
15. Reactor Cooling Systems	216	27
17. Safety I&C Systems (excluding reactor I&C)		31
21. Fuel Handling and Storage Facilities		17
31. Turbine and auxiliaries		93
32. Feedwater and Main Steam System		35
35. All other I&C Systems		6
41. Main Generator Systems		1
42. Electrical Power Supply Systems	173	44
Total	389	278

US-445 COMANCHE PEAK-1

Operator: TXU (TXU Electric Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1084.0 MW(e)
 Design Net Capacity: 1150.0 MW(e)
 Design Discharge Burnup: 40000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9217.8 GW(e).h
 Energy Availability Factor: 91.4%
 Load Factor: 97.1%
 Operating Factor: 91.4%
 Energy Unavailability Factor: 8.6%
 Total Off-line Time: 756 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	873.9	748.1	871.5	841.9	866.3	834.1	856.6	857.7	830.8	200.3	561.5	875.1	9217.8
EAF (%)	100.0	97.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	22.6	77.9	100.0	91.4
UCF (%)	100.0	97.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	22.6	77.9	100.0	91.4
LF (%)	108.4	102.7	108.1	107.9	107.4	106.9	106.2	106.3	106.5	24.8	71.9	108.5	97.1
OF (%)	100.0	97.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	24.1	76.4	100.0	91.4
EUF (%)	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.4	22.1	0.0	8.6
PUF (%)	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.4	22.1	0.0	8.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1974 Lifetime Generation: 128008.9 GW(e).h
 Date of First Criticality: 03 Apr 1990 Cumulative Energy Availability Factor: 87.5%
 Date of Grid Connection: 24 Apr 1990 Cumulative Load Factor: 82.3%
 Date of Commercial Operation: 13 Aug 1990 Cumulative Unit Capability Factor: 87.5%
 Cumulative Energy Unavailability Factor: 12.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	2513.5	1137.0	78.9	78.9	78.9	78.9	65.5	65.5	2865	84.8
1991	5360.5	1150.0	60.5	65.6	60.5	65.6	53.2	56.6	5341	61.0
1992	6937.5	1150.0	79.1	71.3	79.1	71.3	68.7	61.7	6947	79.1
1993	7150.4	1150.0	79.1	73.6	79.1	73.6	71.0	64.4	6932	79.1
1994	9367.6	1150.0	98.8	79.3	98.8	79.3	93.0	70.9	8653	98.8
1995	7803.7	1150.0	85.0	80.4	85.0	80.4	77.5	72.2	7444	85.0
1996	7756.2	1150.0	83.0	80.8	82.7	80.8	76.8	72.9	7265	82.7
1997	9478.9	1150.0	98.8	83.2	98.8	83.2	94.1	75.8	8656	98.8
1998	8506.0	1150.0	89.6	84.0	89.6	84.0	84.4	76.8	7848	89.6
1999	8601.5	1150.0	90.4	84.7	90.4	84.7	85.4	77.7	7922	90.4
2000	9619.8	1150.0	100.0	86.2	100.0	86.1	95.2	79.4	8784	100.0
2001	8444.3	1150.0	88.9	86.4	88.9	86.4	83.8	79.8	7781	88.8
2002	7785.3	1150.0	83.0	86.1	83.0	86.1	77.3	79.6	7213	82.3
2003	9626.0	1150.0	98.9	87.1	98.9	87.1	95.6	80.8	8653	98.8
2004	9018.1	1150.0	89.8	87.3	89.8	87.2	89.3	81.4	7877	89.7
2005	9217.8	1084.0	91.4	87.5	91.4	87.5	97.1	82.3	8004	91.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					181	
B. Refuelling without a maintenance					21	
C. Inspection, maintenance or repair combined with refuelling	735			714		
D. Inspection, maintenance or repair without refuelling	19			136		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	1
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					5	
Subtotal	754	0	0	850	209	1
Total	754			1060		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		22
13. Reactor Auxiliary Systems		0
15. Reactor Cooling Systems		6
16. Steam generation systems		11
31. Turbine and auxiliaries		45
32. Feedwater and Main Steam System		18
35. All other I&C Systems		10
41. Main Generator Systems		23
42. Electrical Power Supply Systems		24
Total	0	159

US-446 COMANCHE PEAK-2

Operator: TXU (TXU Electric Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1124.0 MW(e)
 Design Net Capacity: 1150.0 MW(e)
 Design Discharge Burnup: 36000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9225.4 GW(e).h
 Energy Availability Factor: 91.1%
 Load Factor: 93.7%
 Operating Factor: 91.1%
 Energy Unavailability Factor: 8.9%
 Total Off-line Time: 782 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	857.2	762.0	699.4	18.2	859.6	843.7	865.7	865.4	840.7	876.0	853.7	883.7	9225.4
EAF (%)	100.0	100.0	80.6	11.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.1
UCF (%)	100.0	100.0	80.7	11.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.1
LF (%)	102.5	100.9	83.6	2.3	102.8	104.3	103.5	103.5	103.9	104.6	105.5	105.7	93.7
OF (%)	100.0	100.0	82.1	9.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.1
EUF (%)	0.0	0.0	19.4	88.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
PUF (%)	0.0	0.0	19.4	88.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1974
 Date of First Criticality: 24 Mar 1993
 Date of Grid Connection: 09 Apr 1993
 Date of Commercial Operation: 03 Aug 1993

Lifetime Generation: 107022.6 GW(e).h
 Cumulative Energy Availability Factor: 89.2%
 Cumulative Load Factor: 85.1%
 Cumulative Unit Capability Factor: 89.3%
 Cumulative Energy Unavailability Factor: 10.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1993	3441.8	1150.0	89.7	89.7	89.7	89.7	82.8	82.8	3245	89.7
1994	5263.2	1150.0	65.1	72.3	65.1	72.3	52.2	61.2	5697	65.0
1995	9166.6	1150.0	95.7	82.0	95.7	82.0	91.0	73.5	8382	95.7
1996	7370.4	1150.0	79.4	81.2	78.7	81.0	73.0	73.4	6911	78.7
1997	8062.1	1150.0	86.2	82.4	86.2	82.2	80.0	74.9	7554	86.2
1998	9345.3	1150.0	99.8	85.6	99.8	85.4	92.8	78.2	8741	99.8
1999	8756.0	1150.0	90.2	86.3	90.2	86.2	86.9	79.5	7901	90.2
2000	8868.0	1150.0	90.2	86.8	90.2	86.7	87.8	80.7	7927	90.2
2001	9877.9	1150.0	99.7	88.4	99.7	88.3	98.1	82.7	8731	99.7
2002	8793.8	1150.0	90.1	88.5	90.1	88.5	87.3	83.2	7888	90.0
2003	8123.4	1150.0	83.8	88.1	83.8	88.0	80.6	83.0	7307	83.4
2004	10038.9	1150.0	100.0	89.1	100.0	89.1	99.4	84.4	8784	100.0
2005	9225.4	1124.0	91.1	89.3	91.1	89.2	93.7	85.1	7979	91.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1993 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					223	
B. Refuelling without a maintenance					0	
C. Inspection, maintenance or repair combined with refuelling	780			510		
D. Inspection, maintenance or repair without refuelling				98		
E. Testing of plant systems or components				80		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				16	4	5
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					26	
Z. Others					0	
Subtotal	780	0	0	704	253	5
Total		780			962	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1993 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
13. Reactor Auxiliary Systems		2
14. Safety Systems		52
15. Reactor Cooling Systems		70
31. Turbine and auxiliaries		20
32. Feedwater and Main Steam System		57
41. Main Generator Systems		7
42. Electrical Power Supply Systems		5
Total	0	215

US-298 COOPER

Operator: NPPD (NEBRASKA PUBLIC POWER DISTRICT)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 757.0 MW(e)
Design Net Capacity: 778.0 MW(e)
Design Discharge Burnup: 17349 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5891.9 GW(e).h
Energy Availability Factor: 88.8%
Load Factor: 88.8%
Operating Factor: 88.7%
Energy Unavailability Factor: 11.2%
Total Off-line Time: 987 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	213.0	168.3	586.9	504.1	581.0	539.7	560.1	560.8	462.6	578.8	565.8	570.9	5891.9
EAF (%)	45.2	36.0	100.0	92.1	100.0	100.0	100.0	100.0	87.7	100.0	100.0	100.0	88.8
UCF (%)	45.2	36.0	100.0	92.1	100.0	100.0	100.0	100.0	87.7	100.0	100.0	100.0	88.8
LF (%)	37.8	33.1	104.2	92.5	103.2	99.0	99.4	99.6	84.9	102.6	103.8	101.4	88.8
OF (%)	45.2	35.9	100.0	91.8	100.0	100.0	100.0	100.0	87.6	100.0	100.0	100.0	88.7
EUF (%)	54.8	64.0	0.0	7.9	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	11.2
PUF (%)	54.8	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
UCLF (%)	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	1.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1968
Date of First Criticality: 21 Feb 1974
Date of Grid Connection: 10 May 1974
Date of Commercial Operation: 01 Jul 1974

Lifetime Generation: 144877.0 GW(e).h
Cumulative Energy Availability Factor: 73.7%
Cumulative Load Factor: 68.6%
Cumulative Unit Capability Factor: 73.7%
Cumulative Energy Unavailability Factor: 26.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	1740.5	778.0	100.0	100.0	100.0	100.0	50.7	50.7	3240	73.4
1975	3363.2	764.0	50.3	67.2	50.3	67.2	50.3	50.4	7320	83.6
1976	3642.6	764.0	54.3	62.0	54.3	62.0	54.3	51.9	6626	75.4
1977	4540.1	764.0	67.9	63.7	67.9	63.7	67.8	56.5	7546	86.1
1978	4886.8	764.0	73.0	65.8	73.0	65.8	73.0	60.1	7966	90.9
1979	4995.0	764.0	74.6	67.4	74.6	67.4	74.6	62.8	7670	87.6
1980	3787.5	764.0	71.6	68.0	70.6	67.9	56.4	61.8	6240	71.0
1981	3851.1	764.0	71.0	68.4	71.0	68.3	57.5	61.2	6239	71.2
1982	5276.1	764.0	84.4	70.3	84.4	70.2	78.8	63.3	7412	84.6
1983	3343.3	764.0	62.7	69.5	62.7	69.4	50.0	61.9	5544	63.3
1984	3470.0	764.0	67.6	69.3	67.1	69.2	51.7	60.9	5901	67.2
1985	1067.7	764.0	20.1	65.1	20.1	64.9	16.0	57.0	1884	21.5
1986	4052.1	764.0	74.7	65.8	74.7	65.7	60.5	57.3	6546	74.7
1987	5522.1	764.0	94.6	68.0	94.6	67.8	82.5	59.2	8291	94.6
1988	4200.6	764.0	66.5	67.8	66.5	67.7	62.6	59.4	5887	67.0
1989	4790.9	764.0	74.9	68.3	74.9	68.2	71.6	60.2	6594	75.3
1990	5111.4	764.0	78.5	68.9	78.5	68.8	76.4	61.2	6908	78.9
1991	4803.8	764.0	77.9	69.4	77.9	69.3	71.8	61.8	6830	78.0
1992	6227.9	764.0	96.0	70.9	96.0	70.8	92.8	63.4	8436	96.0
1993	3712.9	764.0	56.8	70.1	56.8	70.1	55.5	63.0	5041	57.5
1994	2227.3	764.0	33.4	68.4	33.4	68.3	33.3	61.6	3033	34.6
1995	4127.8	764.0	64.0	68.2	64.0	68.1	61.7	61.6	5663	64.6
1996	6338.9	764.0	97.2	69.5	97.2	69.4	94.5	63.1	8540	97.2
1997	5455.7	764.0	83.6	70.1	83.6	70.0	81.5	63.8	7336	83.7
1998	4869.9	764.0	74.4	70.2	74.4	70.2	72.8	64.2	6544	74.7
1999	6510.4	764.0	97.7	71.3	97.7	71.2	97.3	65.5	8563	97.8
2000	4735.9	764.0	73.1	71.4	73.1	71.3	70.6	65.7	6414	73.0
2001	5206.5	764.0	79.9	71.7	79.9	71.6	77.8	66.1	7009	80.0
2002	6318.2	764.0	96.8	72.6	96.8	72.5	94.4	67.1	8478	96.8
2003	4492.3	764.0	71.3	72.5	71.3	72.5	67.1	67.1	6236	71.2
2004	6171.8	764.0	94.6	73.3	94.6	73.2	92.0	67.9	8299	94.5
2005	5891.9	757.0	88.8	73.7	88.8	73.7	88.8	68.6	7774	88.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		145		3	222	1
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	838			1295		
D. Inspection, maintenance or repair without refuelling				149		
E. Testing of plant systems or components				0	1	
H. Nuclear regulatory requirements				5	7	5
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					250	0
P. Fire					3	
Subtotal	838	145	0	1452	493	8
Total		983			1953	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		4
12. Reactor I&C Systems		8
13. Reactor Auxiliary Systems		24
14. Safety Systems		8
15. Reactor Cooling Systems		14
31. Turbine and auxiliaries	88	105
32. Feedwater and Main Steam System	57	13
35. All other I&C Systems		4
41. Main Generator Systems		8
42. Electrical Power Supply Systems		13
XX. Miscellaneous Systems		7
Total	145	208

US-302 CRYSTAL RIVER-3

Operator: PROGRESS (Progress Energy Corporation)

Contractor: B&W (BABCOCK & WILCOX CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 838.0 MW(e)
Design Net Capacity: 825.0 MW(e)
Design Discharge Burnup: 36000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6350.9 GW(e).h
Energy Availability Factor: 87.6%
Load Factor: 86.5%
Operating Factor: 87.6%
Energy Unavailability Factor: 12.4%
Total Off-line Time: 1088 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	640.5	578.7	640.3	533.7	628.3	597.6	626.0	623.7	610.0	527.3	0.0	344.8	6350.9
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.8	0.0	69.7	87.6
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	80.8	0.0	69.7	87.6
LF (%)	102.7	102.8	102.7	88.5	100.8	99.0	100.4	100.0	101.1	84.6	0.0	55.3	86.5
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	81.0	0.0	69.6	87.6
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.2	100.0	30.3	12.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	100.0	30.3	11.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1967
Date of First Criticality: 14 Jan 1977
Date of Grid Connection: 30 Jan 1977
Date of Commercial Operation: 13 Mar 1977

Lifetime Generation: 141531.3 GW(e).h
Cumulative Energy Availability Factor: 70.8%
Cumulative Load Factor: 68.4%
Cumulative Unit Capability Factor: 70.9%
Cumulative Energy Unavailability Factor: 29.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	4037.7	818.0	67.2	67.2	67.2	67.2	67.2	67.2	5916	80.6
1978	2603.0	797.0	37.3	51.1	37.3	51.1	37.3	51.1	3627	41.4
1979	3761.8	797.0	53.9	52.1	53.9	52.1	53.9	52.1	5153	58.8
1980	3353.5	785.0	51.7	52.0	51.7	52.0	48.6	51.2	4663	53.1
1981	4083.7	782.0	62.8	54.2	62.4	54.1	59.6	52.9	5444	62.1
1982	4915.7	806.0	76.1	58.0	76.1	57.9	69.6	55.8	6651	75.9
1983	3772.3	806.0	59.1	58.2	59.1	58.1	53.4	55.5	5149	58.8
1984	6478.9	821.0	94.6	62.9	94.5	62.9	89.8	60.0	8295	94.4
1985	2863.6	821.0	48.2	61.2	48.2	61.2	39.8	57.6	4171	47.6
1986	2653.2	821.0	42.3	59.3	42.3	59.2	36.9	55.5	3659	41.8
1987	3620.8	821.0	60.2	59.4	60.2	59.3	50.3	55.0	5263	60.1
1988	5768.1	821.0	84.1	61.5	84.1	61.4	80.0	57.1	7375	84.0
1989	2930.0	821.0	48.4	60.5	48.4	60.4	40.7	55.9	4190	47.8
1990	4142.9	821.0	62.3	60.6	62.3	60.6	57.6	56.0	5421	61.9
1991	5457.2	821.0	82.2	62.1	81.5	62.0	75.9	57.3	7136	81.5
1992	5315.9	821.0	75.9	63.0	75.9	62.9	73.7	58.4	6633	75.5
1993	6080.0	821.0	84.8	64.3	84.8	64.2	84.5	60.0	7409	84.6
1994	5939.9	818.0	83.4	65.4	83.4	65.3	82.8	61.2	7292	83.2
1995	7234.9	818.0	99.7	67.2	99.7	67.1	101.0	63.4	8733	99.7
1996	2417.4	818.0	35.9	65.6	35.9	65.5	33.6	61.9	3107	35.4
1997	0.0	818.0	0.0	62.4	0.0	62.4	0.0	58.9	0	0.0
1998	6481.9	818.0	88.8	63.6	88.8	63.6	90.5	60.3	7777	88.8
1999	6373.1	818.0	87.6	64.7	87.6	64.6	88.9	61.6	7677	87.6
2000	7197.7	843.0	97.5	66.1	97.5	66.1	97.2	63.1	8555	97.4
2001	6514.2	834.0	88.9	67.1	88.9	67.0	89.2	64.2	7784	88.9
2002	7300.3	834.0	99.2	68.3	99.2	68.3	99.9	65.6	8692	99.2
2003	6579.4	834.0	90.3	69.2	90.3	69.1	90.1	66.5	7911	90.3
2004	7303.3	838.0	99.2	70.3	97.7	70.2	99.2	67.8	8584	97.7
2005	6350.9	838.0	87.6	70.9	87.6	70.8	86.5	68.4	7672	87.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		70		0	669	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	940			939		
D. Inspection, maintenance or repair without refuelling	77			334		
E. Testing of plant systems or components				1		
H. Nuclear regulatory requirements				22	373	
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				5	91	1
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						4
Subtotal	1017	70	0	1301	1141	7
Total	1087			2449		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		74
14. Safety Systems		27
15. Reactor Cooling Systems		232
16. Steam generation systems		6
21. Fuel Handling and Storage Facilities		164
31. Turbine and auxiliaries		76
32. Feedwater and Main Steam System	70	51
33. Circulating Water System		6
42. Electrical Power Supply Systems		18
XX. Miscellaneous Systems		1
Total	70	655

US-346 DAVIS BESSE-1

Operator: FENOC (FIRST ENERGY NUCLEAR OPERATING CO.)

Contractor: B&W (BABCOCK & WILCOX CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 873.0 MW(e)
Design Net Capacity: 906.0 MW(e)
Design Discharge Burnup: 50000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7177.4 GW(e).h
Energy Availability Factor: 92.8%
Load Factor: 93.9%
Operating Factor: 92.8%
Energy Unavailability Factor: 7.2%
Total Off-line Time: 635 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	333.5	402.3	671.5	642.3	663.6	637.4	651.0	654.0	634.9	595.9	624.5	666.6	7177.4
EAF (%)	51.6	68.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.9	100.0	100.0	92.8
UCF (%)	51.6	68.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.9	100.0	100.0	92.8
LF (%)	51.3	68.6	103.4	102.2	102.2	101.4	100.2	100.7	101.0	91.7	99.3	102.6	93.9
OF (%)	51.9	67.9	100.0	99.9	100.0	100.0	100.0	100.0	100.0	91.9	100.0	100.0	92.8
EUF (%)	48.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0	7.2
PUF (%)	48.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0	7.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1970
Date of First Criticality: 12 Aug 1977
Date of Grid Connection: 28 Aug 1977
Date of Commercial Operation: 31 Jul 1978

Lifetime Generation: 134081.3 GW(e).h
Cumulative Energy Availability Factor: 65.5%
Cumulative Load Factor: 62.6%
Cumulative Unit Capability Factor: 65.6%
Cumulative Energy Unavailability Factor: 34.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	1306.7	906.0	32.6	32.6	32.6	32.6	32.7	32.7	2090	47.3
1979	3129.1	906.0	39.4	37.2	39.4	37.2	39.4	37.2	4139	47.2
1980	2093.6	892.0	35.0	36.3	35.0	36.3	26.7	33.0	3171	36.1
1981	4363.4	888.0	67.4	45.1	67.4	45.1	56.1	39.5	5902	67.4
1982	3218.1	874.0	51.5	46.5	51.5	46.5	42.0	40.1	4508	51.5
1983	4883.3	874.0	72.3	51.1	72.3	51.1	63.8	44.3	6389	72.9
1984	4291.6	874.0	62.5	52.8	62.5	52.8	55.9	46.1	5486	62.5
1985	1942.9	860.0	30.9	50.0	30.9	50.0	25.7	43.4	2729	31.2
1986	3.5	860.0	1.3	44.4	1.3	44.4	0.0	38.4	116	1.3
1987	5064.0	860.0	82.8	48.3	82.8	48.3	67.2	41.4	7308	83.4
1988	1164.4	860.0	20.3	45.7	20.3	45.7	15.4	39.0	1891	21.5
1989	7322.1	860.0	97.1	50.2	97.1	50.2	96.0	43.9	8506	97.1
1990	4161.5	874.0	55.6	50.6	55.6	50.6	54.4	44.7	4867	55.6
1991	5843.9	874.0	78.6	52.7	78.6	52.7	76.3	47.1	6962	79.5
1992	7650.5	877.0	99.5	55.9	99.5	55.9	99.3	50.7	8742	99.5
1993	6083.4	868.0	82.7	57.6	82.7	57.6	79.7	52.5	7246	82.7
1994	6385.0	868.0	86.9	59.4	86.9	59.4	84.0	54.4	7667	87.5
1995	7670.6	871.0	100.0	61.7	100.0	61.7	100.8	57.1	8760	100.0
1996	6456.3	873.0	84.8	62.9	84.8	62.9	84.3	58.5	7452	84.8
1997	7183.4	873.0	93.4	64.5	93.4	64.5	93.9	60.3	8184	93.4
1998	6130.7	873.0	85.4	65.5	82.0	65.3	80.2	61.3	7181	82.0
1999	7370.0	873.0	94.9	66.9	94.9	66.7	96.4	62.9	8311	94.9
2000	6770.5	882.0	87.0	67.8	87.0	67.6	87.9	64.0	7633	86.9
2001	7690.8	882.0	99.8	69.1	99.8	69.0	99.5	65.6	8738	99.7
2002	929.0	882.0	12.4	66.8	12.4	66.7	12.0	63.4	1081	12.3
2003	0.0	882.0	0.0	64.2	0.0	64.0	0.0	60.9	0	0.0
2004	5778.4	882.0	75.6	64.6	75.6	64.5	74.6	61.4	6628	75.5
2005	7177.4	873.0	92.8	65.6	92.8	65.5	93.9	62.6	8125	92.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					900	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling				1616		
D. Inspection, maintenance or repair without refuelling	633			220		
E. Testing of plant systems or components				13	0	
H. Nuclear regulatory requirements					0	59
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					19	10
Subtotal	633	0	0	1849	934	69
Total	633			2852		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		75
13. Reactor Auxiliary Systems		6
15. Reactor Cooling Systems		56
16. Steam generation systems		0
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		14
32. Feedwater and Main Steam System		527
35. All other I&C Systems		3
41. Main Generator Systems		1
42. Electrical Power Supply Systems		91
XX. Miscellaneous Systems		1
Total	0	778

US-275 DIABLO CANYON-1

Operator: PGE (PACIFIC GAS & ELECTRIC CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1087.0 MW(e)
 Design Net Capacity: 1084.0 MW(e)
 Design Discharge Burnup: 45000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8323.4 GW(e).h
 Energy Availability Factor: 88.8%
 Load Factor: 87.4%
 Operating Factor: 88.8%
 Energy Unavailability Factor: 11.2%
 Total Off-line Time: 985 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	800.4	669.4	818.3	789.7	814.2	773.5	818.5	816.6	750.6	578.5	0.0	693.6	8323.4
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	71.0	0.0	93.5	88.8
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	71.0	0.0	93.6	88.8
LF (%)	99.0	91.6	101.2	100.9	100.7	98.8	101.2	101.0	95.9	71.5	0.0	85.8	87.4
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	71.6	0.0	92.9	88.8
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	100.0	6.5	11.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	100.0	6.5	11.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Aug 1968
 Date of First Criticality: 29 Apr 1984
 Date of Grid Connection: 11 Nov 1984
 Date of Commercial Operation: 07 May 1985

Lifetime Generation: 162624.3 GW(e).h
 Cumulative Energy Availability Factor: 84.8%
 Cumulative Load Factor: 83.4%
 Cumulative Unit Capability Factor: 84.9%
 Cumulative Energy Unavailability Factor: 15.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	5234.2	1073.0	90.8	90.8	90.8	90.8	85.1	85.1	5206	90.8
1986	5316.2	1073.0	65.7	75.7	65.7	75.7	56.6	67.8	5757	65.7
1987	8284.2	1073.0	95.3	83.0	95.3	83.0	88.1	75.5	8340	95.2
1988	5276.1	1073.0	34.6	69.8	34.6	69.8	56.0	70.1	5555	63.2
1989	7199.9	1073.0	80.7	72.1	80.7	72.1	76.6	71.5	7069	80.7
1990	8713.5	1073.0	96.2	76.4	96.2	76.4	92.7	75.3	8425	96.2
1991	7366.3	1073.0	80.4	77.0	80.4	77.0	78.4	75.7	7125	81.3
1992	7454.7	1073.0	82.3	77.7	82.3	77.7	79.1	76.2	7224	82.2
1993	9028.0	1073.0	98.5	80.1	98.5	80.1	96.0	78.5	8630	98.5
1994	7372.0	1073.0	79.9	80.1	79.9	80.1	78.4	78.5	6991	79.8
1995	7451.8	1073.0	81.9	80.2	81.9	80.2	79.3	78.5	7175	81.9
1996	8786.8	1073.0	94.7	81.5	94.7	81.5	93.2	79.8	8316	94.7
1997	8195.0	1073.0	87.9	82.0	87.9	82.0	87.2	80.4	7700	87.9
1998	8967.8	1073.0	97.8	83.1	97.8	83.1	95.4	81.5	8564	97.8
1999	8224.8	1073.0	90.3	83.6	88.7	83.5	87.5	81.9	7764	88.6
2000	7853.5	1073.0	85.2	83.7	85.2	83.6	83.3	82.0	7485	85.2
2001	9504.6	1087.0	99.4	84.7	99.4	84.6	100.0	83.1	8708	99.4
2002	7048.2	1087.0	76.0	84.2	76.0	84.1	74.0	82.6	6652	75.9
2003	9585.4	1087.0	100.0	85.0	100.0	85.0	100.7	83.5	8760	100.0
2004	7233.9	1087.0	78.2	84.7	78.2	84.6	75.8	83.1	6869	78.2
2005	8323.4	1087.0	88.8	84.9	88.8	84.8	87.4	83.4	7775	88.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					241	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	984			859		
D. Inspection, maintenance or repair without refuelling				89		
E. Testing of plant systems or components				0		
H. Nuclear regulatory requirements					2	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					11	6
Subtotal	984	0	0	948	267	6
Total	984			1221		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
14. Safety Systems		7
15. Reactor Cooling Systems		8
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		7
32. Feedwater and Main Steam System		123
33. Circulating Water System		12
35. All other I&C Systems		1
41. Main Generator Systems		2
42. Electrical Power Supply Systems		50
Total	0	214

US-323 DIABLO CANYON-2

Operator: PGE (PACIFIC GAS & ELECTRIC CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1087.0 MW(e)

Design Net Capacity: 1106.0 MW(e)

Design Discharge Burnup: 45000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9441.7 GW(e).h

Energy Availability Factor: 100.0%

Load Factor: 99.1%

Operating Factor: 100.0%

Energy Unavailability Factor: 0.0%

Total Off-line Time: 1 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	812.9	736.1	816.0	789.8	816.9	790.2	817.3	815.6	695.4	780.9	783.6	787.2	9441.7
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	100.5	100.8	100.9	100.9	101.0	101.0	101.1	100.9	88.8	96.4	100.1	97.3	99.1
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Dec 1970

Date of First Criticality: 19 Aug 1985

Date of Grid Connection: 20 Oct 1985

Date of Commercial Operation: 13 Mar 1986

Lifetime Generation: 162680.9 GW(e).h

Cumulative Energy Availability Factor: 88.3%

Cumulative Load Factor: 85.9%

Cumulative Unit Capability Factor: 88.4%

Cumulative Energy Unavailability Factor: 11.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	6548.2	1079.0	95.4	95.4	95.4	95.4	86.2	86.2	6729	95.4
1987	5728.8	1079.0	65.4	78.8	65.4	78.8	60.6	72.0	5752	65.7
1988	6243.3	1087.0	69.3	75.4	69.3	75.4	65.4	69.6	6086	69.3
1989	8616.0	1087.0	92.2	79.8	92.2	79.8	90.5	75.1	8072	92.1
1990	7578.1	1087.0	83.2	80.5	83.2	80.5	79.6	76.1	7284	83.2
1991	7718.5	1087.0	84.7	81.2	84.7	81.2	81.1	76.9	7420	84.7
1992	9247.7	1087.0	98.5	83.8	98.5	83.8	96.9	79.9	8651	98.5
1993	7796.2	1087.0	83.6	83.8	83.6	83.8	81.9	80.1	7324	83.6
1994	7896.1	1087.0	85.0	83.9	85.0	83.9	82.9	80.4	7439	84.9
1995	8821.0	1087.0	96.3	85.2	96.3	85.2	92.6	81.7	8430	96.2
1996	7932.9	1087.0	85.0	85.1	85.0	85.1	83.1	81.8	7459	84.9
1997	8883.5	1087.0	96.4	86.1	96.4	86.1	93.3	82.8	8441	96.4
1998	8159.0	1087.0	87.1	86.2	87.1	86.2	85.7	83.0	7624	87.0
1999	8443.7	1087.0	91.3	86.5	90.2	86.5	88.7	83.4	7902	90.2
2000	9188.5	1087.0	96.9	87.2	96.9	87.2	96.2	84.3	8512	96.9
2001	8658.4	1087.0	91.9	87.5	91.9	87.5	90.9	84.7	8051	91.9
2002	9286.1	1087.0	99.6	88.3	98.9	88.2	97.5	85.5	8663	98.9
2003	7725.2	1087.0	82.5	87.9	82.5	87.8	81.1	85.2	7225	82.5
2004	8017.9	1087.0	85.8	87.8	85.8	87.7	84.0	85.2	7535	85.8
2005	9441.7	1087.0	100.0	88.4	100.0	88.3	99.1	85.9	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					160	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	735					
D. Inspection, maintenance or repair without refuelling	18					
E. Testing of plant systems or components	1					
H. Nuclear regulatory requirements					13	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					32	7
Subtotal	0	0	0	754	220	7
Total	0			981		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		10
13. Reactor Auxiliary Systems		8
15. Reactor Cooling Systems		7
31. Turbine and auxiliaries		26
32. Feedwater and Main Steam System		26
33. Circulating Water System		2
35. All other I&C Systems		10
41. Main Generator Systems		12
42. Electrical Power Supply Systems		55
Total	0	156

US-315 DONALD COOK-1

Operator: IMPCO (INDIANA MICHIGAN POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1016.0 MW(e)
Design Net Capacity: 1030.0 MW(e)
Design Discharge Burnup: 38000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8055.8 GW(e).h
Energy Availability Factor: 90.7%
Load Factor: 90.5%
Operating Factor: 90.6%
Energy Unavailability Factor: 9.3%
Total Off-line Time: 821 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	773.5	700.9	610.4	57.2	762.1	684.4	743.0	744.6	693.0	765.1	747.3	774.4	8055.8
EAF (%)	100.0	100.0	80.6	13.6	100.0	95.9	100.0	100.0	96.9	100.0	100.0	100.0	90.7
UCF (%)	100.0	100.0	80.7	13.6	100.0	95.9	100.0	100.0	96.9	100.0	100.0	100.0	90.7
LF (%)	102.3	102.7	80.7	7.8	100.8	93.6	98.3	98.5	94.7	101.1	102.2	102.4	90.5
OF (%)	100.0	100.0	80.6	13.3	100.0	95.8	100.0	100.0	96.8	100.0	100.0	100.0	90.6
EUF (%)	0.0	0.0	19.4	86.4	0.0	4.1	0.0	0.0	3.1	0.0	0.0	0.0	9.3
PUF (%)	0.0	0.0	19.4	86.4	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	9.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Mar 1969
Date of First Criticality: 18 Jan 1975
Date of Grid Connection: 10 Feb 1975
Date of Commercial Operation: 27 Aug 1975

Lifetime Generation: 176713.8 GW(e).h
Cumulative Energy Availability Factor: 68.4%
Cumulative Load Factor: 64.7%
Cumulative Unit Capability Factor: 68.6%
Cumulative Energy Unavailability Factor: 31.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	2557.1	835.0	84.7	84.7	84.7	84.7	83.4	83.4	3141	85.5
1976	6804.9	983.0	79.2	80.6	79.2	80.6	78.8	80.0	7298	83.1
1977	4785.8	1044.0	52.4	68.2	52.4	68.2	52.3	67.9	6658	76.0
1978	6286.9	1044.0	68.7	68.4	68.7	68.4	68.7	68.1	6438	73.5
1979	5660.2	1044.0	61.9	66.9	61.9	66.9	61.9	66.7	5666	64.7
1980	6461.3	1044.0	79.5	69.3	74.8	68.4	70.5	67.4	6470	73.7
1981	6781.5	1044.0	77.1	70.5	77.1	69.8	74.2	68.5	6663	76.1
1982	5352.7	1044.0	64.2	69.6	64.2	69.0	58.5	67.1	5487	62.6
1983	5286.7	1030.0	64.3	69.0	64.3	68.4	58.6	66.1	5628	64.2
1984	7550.8	1020.0	91.3	71.4	91.3	70.9	84.3	68.0	8016	91.3
1985	2116.1	1020.0	29.9	67.4	29.9	66.9	23.7	63.8	2489	28.4
1986	6650.1	1020.0	85.5	69.0	85.5	68.6	74.4	64.7	7464	85.2
1987	5033.8	1020.0	68.2	68.9	68.2	68.5	56.3	64.0	5917	67.5
1988	7467.8	1020.0	95.5	70.9	95.5	70.5	83.3	65.5	8379	95.4
1989	5433.0	1020.0	69.9	70.8	69.9	70.5	60.8	65.2	6069	69.3
1990	6301.6	1020.0	79.2	71.4	79.2	71.1	70.5	65.5	6939	79.2
1991	7338.2	1020.0	86.0	72.3	86.0	72.0	82.7	66.5	7524	85.9
1992	4990.7	1020.0	65.1	71.9	65.1	71.6	56.3	66.0	5690	64.8
1993	8759.4	1000.0	100.0	73.4	100.0	73.1	99.3	67.7	8760	100.0
1994	5759.5	1000.0	71.0	73.2	71.0	73.0	65.7	67.6	6214	70.9
1995	5396.8	1000.0	66.4	72.9	66.4	72.7	61.6	67.4	5809	66.3
1996	8373.3	1000.0	97.6	74.0	97.6	73.8	95.3	68.6	8574	97.6
1997	4545.9	1000.0	52.4	73.1	52.4	72.9	51.9	67.9	4608	52.6
1998	0.0	1000.0	0.0	70.0	0.0	69.8	0.0	65.1	0	0.0
1999	0.0	1000.0	0.0	67.2	0.0	67.0	0.0	62.4	0	0.0
2000	129.8	1000.0	2.8	64.7	2.8	64.5	1.5	60.1	242	2.8
2001	7797.9	1000.0	90.6	65.7	89.5	65.4	89.0	61.1	7840	89.5
2002	7740.9	1000.0	88.9	66.5	88.9	66.3	88.4	62.1	7782	88.8
2003	6570.1	1000.0	74.1	66.8	74.1	66.6	75.0	62.6	6489	74.1
2004	8831.5	1000.0	97.7	67.8	97.7	67.6	100.5	63.8	8588	97.8
2005	8055.8	1016.0	90.7	68.6	90.7	68.4	90.5	64.7	7940	90.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		22			251	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	766			1194		
D. Inspection, maintenance or repair without refuelling	29			142		
E. Testing of plant systems or components				10	6	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				3		
H. Nuclear regulatory requirements					0	24
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					938	2
P. Fire					15	
Subtotal	795	22	0	1349	1223	26
Total		817			2598	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		21
14. Safety Systems		10
15. Reactor Cooling Systems	22	39
16. Steam generation systems		8
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		65
32. Feedwater and Main Steam System		21
33. Circulating Water System		42
35. All other I&C Systems		0
41. Main Generator Systems		22
42. Electrical Power Supply Systems		18
Total	22	247

US-316 DONALD COOK-2

Operator: IMPCO (INDIANA MICHIGAN POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 1077.0 MW(e)
Design Net Capacity: 1100.0 MW(e)
Design Discharge Burnup: 48000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9415.5 GW(e).h
Energy Availability Factor: 98.2%
Load Factor: 99.8%
Operating Factor: 98.2%
Energy Unavailability Factor: 1.8%
Total Off-line Time: 158 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	778.8	753.5	833.3	805.5	821.7	780.2	792.3	791.1	721.5	813.8	694.3	829.5	9415.5
EAF (%)	95.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.9	100.0	88.3	100.0	98.2
UCF (%)	95.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.9	100.0	88.3	100.0	98.2
LF (%)	97.2	104.1	104.0	103.9	102.6	100.6	98.9	98.7	93.0	101.4	89.5	103.5	99.8
OF (%)	95.3	100.0	100.0	99.9	100.0	100.0	100.0	100.0	94.9	100.0	88.2	100.0	98.2
EUF (%)	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	11.7	0.0	1.8
PUF (%)	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	0.0	1.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Mar 1969	Lifetime Generation:	159166.4 GW(e).h
Date of First Criticality:	10 Mar 1978	Cumulative Energy Availability Factor:	65.8%
Date of Grid Connection:	22 Mar 1978	Cumulative Load Factor:	61.7%
Date of Commercial Operation:	01 Jul 1978	Cumulative Unit Capability Factor:	66.0%
		Cumulative Energy Unavailability Factor:	34.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	3122.8	1082.0	65.4	65.4	65.4	65.4	65.3	65.3	3411	77.2
1979	5953.5	1082.0	62.8	63.7	62.8	63.7	62.8	63.7	5773	65.9
1980	6691.2	1082.0	80.1	70.3	74.8	68.1	70.4	66.4	6535	74.4
1981	6384.8	1082.0	71.2	70.5	71.2	69.0	67.4	66.6	6178	70.5
1982	6995.6	1082.0	77.2	72.0	77.2	70.8	73.8	68.2	6738	76.9
1983	7013.6	1071.0	78.3	73.1	78.3	72.2	74.8	69.4	6835	78.0
1984	5364.4	1060.0	59.2	71.0	59.2	70.2	57.6	67.6	5196	59.2
1985	5683.6	1060.0	66.9	70.5	66.9	69.8	61.2	66.8	5852	66.8
1986	4335.6	1060.0	61.5	69.4	61.5	68.8	46.7	64.4	5389	61.5
1987	5026.6	1060.0	71.4	69.6	71.4	69.1	54.1	63.4	6248	71.3
1988	2323.3	1060.0	30.9	66.0	30.9	65.5	25.0	59.7	2715	30.9
1989	6661.0	1060.0	74.4	66.7	74.4	66.2	71.7	60.8	6518	74.4
1990	4813.3	1060.0	55.4	65.8	55.4	65.4	51.8	60.1	4854	55.4
1991	8185.9	1090.0	92.2	67.8	91.5	67.3	87.7	62.1	8013	91.5
1992	1427.3	1090.0	20.5	64.5	20.5	64.1	15.2	58.9	1714	19.5
1993	7553.8	1060.0	96.6	66.6	96.6	66.2	80.6	60.3	8459	96.6
1994	3531.5	1060.0	54.4	65.8	54.4	65.5	38.0	58.9	4757	54.3
1995	8602.5	1060.0	94.5	67.4	94.5	67.1	92.6	60.8	8268	94.4
1996	8022.6	1060.0	87.0	68.5	87.0	68.2	86.2	62.2	7641	87.0
1997	5875.2	1060.0	64.9	68.3	64.9	68.0	63.3	62.2	5705	65.1
1998	0.0	1060.0	0.0	65.0	0.0	64.7	0.0	59.2	0	0.0
1999	0.0	1060.0	0.0	62.0	0.0	61.7	0.0	56.5	0	0.0
2000	4789.8	1060.0	51.9	61.6	51.9	61.3	51.4	56.3	4557	51.9
2001	7963.4	1060.0	87.8	62.7	87.8	62.4	85.8	57.5	7690	87.8
2002	7687.7	1060.0	83.8	63.5	83.8	63.3	82.8	58.5	7335	83.7
2003	7112.2	1060.0	75.5	64.0	75.5	63.7	76.6	59.2	6610	75.5
2004	7938.5	1060.0	84.3	64.8	84.3	64.5	85.3	60.2	7407	84.3
2005	9415.5	1077.0	98.2	66.0	98.2	65.8	99.8	61.7	8603	98.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		84			588	
B. Refuelling without a maintenance					17	
C. Inspection, maintenance or repair combined with refuelling				1199		
D. Inspection, maintenance or repair without refuelling	71			125	141	
E. Testing of plant systems or components				0		
H. Nuclear regulatory requirements					3	24
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					800	
Z. Others					16	
Subtotal	71	84	0	1324	1565	26
Total		155			2915	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		15
13. Reactor Auxiliary Systems		55
15. Reactor Cooling Systems		95
16. Steam generation systems		192
17. Safety I&C Systems (excluding reactor I&C)		9
31. Turbine and auxiliaries		28
32. Feedwater and Main Steam System		24
33. Circulating Water System		40
35. All other I&C Systems		15
41. Main Generator Systems	84	46
42. Electrical Power Supply Systems		50
Total	84	569

US-237 DRESDEN-2

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 850.0 MW(e)
Design Net Capacity: 794.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6590.1 GW(e).h
Energy Availability Factor: 88.0%
Load Factor: 88.5%
Operating Factor: 88.0%
Energy Unavailability Factor: 12.0%
Total Off-line Time: 1050 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	647.1	570.8	555.6	624.5	564.6	618.2	643.7	609.0	319.4	615.5	177.5	644.2	6590.1
EAF (%)	100.0	100.0	88.3	100.0	87.8	100.0	100.0	93.5	55.7	96.8	33.5	100.0	88.0
UCF (%)	100.0	100.0	88.3	100.0	87.8	100.0	100.0	93.6	55.7	96.8	33.5	100.0	88.0
LF (%)	102.3	99.9	87.8	102.0	89.3	101.0	101.8	96.3	52.2	97.3	29.0	101.9	88.5
OF (%)	100.0	100.0	88.3	99.9	87.8	100.0	100.0	95.2	53.9	96.9	33.3	100.0	88.0
EUF (%)	0.0	0.0	11.7	0.0	12.2	0.0	0.0	6.5	44.3	3.2	66.5	0.0	12.0
PUF (%)	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	3.2	66.5	0.0	6.8
UCLF (%)	0.0	0.0	11.7	0.0	0.0	0.0	0.0	6.5	44.3	0.0	0.0	0.0	5.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Jan 1966	Lifetime Generation:	158122.8 GW(e).h
Date of First Criticality:	07 Jan 1970	Cumulative Energy Availability Factor:	75.6%
Date of Grid Connection:	13 Apr 1970	Cumulative Load Factor:	64.2%
Date of Commercial Operation:	09 Jun 1970	Cumulative Unit Capability Factor:	75.6%
		Cumulative Energy Unavailability Factor:	24.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1970	1002.0	850.0	100.0	100.0	100.0	100.0	23.0	23.0	1945	37.9
1971	2806.3	850.0	100.0	100.0	100.0	100.0	37.7	32.2	5694	65.0
1972	3370.5	815.0	100.0	100.0	100.0	100.0	47.1	37.8	5240	59.7
1973	5014.5	800.0	90.8	97.5	90.8	97.5	71.6	46.9	7672	87.6
1974	3376.0	800.0	58.3	89.2	58.3	89.2	48.2	47.2	5113	58.4
1975	2957.0	800.0	42.2	81.0	42.2	81.0	42.2	46.3	4826	55.1
1976	4374.4	781.0	64.1	78.5	64.1	78.5	63.8	48.9	6660	75.8
1977	3538.1	772.0	52.4	75.2	52.4	75.2	52.3	49.3	6297	71.9
1978	5704.5	772.0	84.4	76.2	84.4	76.2	84.4	53.2	8244	94.1
1979	4942.9	772.0	73.1	75.9	73.1	75.9	73.1	55.2	7141	81.5
1980	4580.4	772.0	93.5	77.5	93.5	77.5	67.5	56.4	8193	93.3
1981	3416.0	772.0	60.7	76.1	60.1	76.1	50.5	55.9	5260	60.0
1982	5123.1	772.0	93.0	77.4	92.4	77.3	75.8	57.4	8094	92.4
1983	3402.2	772.0	59.2	76.1	58.9	76.0	50.3	56.9	5076	57.9
1984	4468.4	772.0	72.9	75.9	72.9	75.8	65.9	57.5	6402	72.9
1985	3106.0	772.0	54.5	74.6	54.5	74.5	45.9	56.8	4678	53.4
1986	4655.7	772.0	77.2	74.7	77.2	74.6	68.8	57.5	6761	77.2
1987	3362.6	772.0	61.0	74.0	61.0	73.9	49.7	57.1	5342	61.0
1988	4325.2	772.0	78.9	74.2	78.9	74.1	63.8	57.4	6931	78.9
1989	4751.7	772.0	80.2	74.5	80.2	74.4	70.3	58.1	7023	80.2
1990	4116.9	772.0	67.6	74.2	67.6	74.1	60.9	58.2	5920	67.6
1991	2984.2	772.0	58.0	73.4	58.0	73.4	44.1	57.6	5031	57.4
1992	4185.8	772.0	84.5	73.9	84.5	73.9	61.7	57.7	7419	84.5
1993	3058.6	772.0	54.7	73.1	54.7	73.1	45.2	57.2	4790	54.7
1994	4086.1	772.0	66.3	72.8	66.3	72.8	60.4	57.3	5808	66.3
1995	1890.5	772.0	33.5	71.3	33.5	71.3	28.0	56.2	2938	33.5
1996	2161.4	772.0	42.5	70.3	42.5	70.2	31.9	55.3	3731	42.5
1997	5578.4	772.0	89.4	70.9	89.4	70.9	82.5	56.3	7738	88.3
1998	5632.9	772.0	85.6	71.5	85.6	71.4	83.3	57.2	7496	85.6
1999	6229.5	772.0	92.7	72.2	92.7	72.1	92.1	58.4	8122	92.7
2000	6867.4	772.0	99.6	73.1	99.6	73.0	101.3	59.8	8747	99.6
2001	6072.7	772.0	91.2	73.6	91.2	73.6	89.8	60.7	8005	91.4
2002	7527.5	850.0	100.0	74.5	100.0	74.5	101.1	62.0	8760	100.0
2003	6703.1	850.0	92.0	75.1	92.0	75.0	90.0	63.0	7999	91.3
2004	5909.3	850.0	80.2	75.2	80.2	75.2	79.1	63.5	7045	80.2
2005	6590.1	850.0	88.0	75.6	88.0	75.6	88.5	64.2	7710	88.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		454			621	
B. Refuelling without a maintenance					20	
C. Inspection, maintenance or repair combined with refuelling	503			1347		
D. Inspection, maintenance or repair without refuelling	90			72	2	
E. Testing of plant systems or components				11	8	
H. Nuclear regulatory requirements					5	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					71	3
Subtotal	593	454	0	1430	727	3
Total		1047			2160	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		11
12. Reactor I&C Systems		83
13. Reactor Auxiliary Systems		12
14. Safety Systems		22
15. Reactor Cooling Systems		113
31. Turbine and auxiliaries	87	143
32. Feedwater and Main Steam System		26
35. All other I&C Systems		22
41. Main Generator Systems		57
42. Electrical Power Supply Systems	367	19
XX. Miscellaneous Systems		13
Total	454	521

US-249 DRESDEN-3

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 850.0 MW(e)
Design Net Capacity: 794.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7032.4 GW(e).h
Energy Availability Factor: 93.3%
Load Factor: 94.4%
Operating Factor: 93.2%
Energy Unavailability Factor: 6.7%
Total Off-line Time: 592 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	649.2	578.7	648.4	528.4	645.8	603.1	644.6	617.4	624.5	648.0	196.8	647.4	7032.4
EAF (%)	100.0	100.0	100.0	85.8	100.0	98.3	100.0	100.0	100.0	100.0	34.0	100.0	93.3
UCF (%)	100.0	100.0	100.0	85.8	100.0	98.3	100.0	100.0	100.0	100.0	34.0	100.0	93.3
LF (%)	102.7	101.3	102.5	86.3	102.1	98.5	101.9	97.6	102.0	102.3	32.1	102.4	94.4
OF (%)	100.0	100.0	100.0	85.7	100.0	98.2	100.0	100.0	100.0	100.0	33.9	100.0	93.2
EUF (%)	0.0	0.0	0.0	14.2	0.0	1.7	0.0	0.0	0.0	0.0	66.0	0.0	6.7
PUF (%)	0.0	0.0	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	66.0	0.0	6.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Oct 1966	Lifetime Generation:	151339.2 GW(e).h
Date of First Criticality:	31 Jan 1971	Cumulative Energy Availability Factor:	71.4%
Date of Grid Connection:	22 Jul 1971	Cumulative Load Factor:	64.1%
Date of Commercial Operation:	16 Nov 1971	Cumulative Unit Capability Factor:	71.5%
		Cumulative Energy Unavailability Factor:	28.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	590.0	850.0	100.0	100.0	100.0	100.0	47.4	47.4	814	55.6
1972	5175.6	815.0	100.0	100.0	100.0	100.0	72.3	68.6	7549	85.9
1973	3703.6	800.0	69.2	86.0	69.2	86.0	52.8	61.4	5905	67.4
1974	3608.9	800.0	65.8	79.7	65.8	79.7	51.5	58.3	5778	66.0
1975	2211.2	800.0	31.5	68.2	31.5	68.2	31.6	52.0	4505	51.4
1976	4037.2	781.0	58.7	66.4	58.7	66.4	58.8	53.3	7231	82.3
1977	5186.4	773.0	76.6	68.0	76.6	68.0	76.6	56.9	8072	92.1
1978	3835.3	773.0	56.6	66.5	56.6	66.5	56.6	56.9	6280	71.7
1979	3482.9	773.0	51.4	64.7	51.4	64.7	51.4	56.2	5930	67.7
1980	4335.5	773.0	72.3	65.5	72.3	65.5	63.9	57.1	6307	71.8
1981	5177.7	773.0	95.1	68.4	94.5	68.3	76.5	58.9	8256	94.2
1982	3896.4	773.0	64.3	68.0	63.8	67.9	57.5	58.8	5562	63.5
1983	4159.7	773.0	73.1	68.4	73.1	68.3	61.4	59.0	6401	73.1
1984	2135.5	773.0	37.7	66.1	37.7	66.0	31.5	56.9	3309	37.7
1985	4401.3	773.0	75.6	66.8	75.6	66.7	65.0	57.5	6618	75.5
1986	1498.3	773.0	28.1	64.3	28.1	64.2	22.1	55.2	2456	28.0
1987	4395.5	773.0	75.3	64.9	75.3	64.9	64.9	55.8	6591	75.2
1988	4168.4	773.0	71.5	65.3	71.5	65.2	61.4	56.1	6278	71.5
1989	5119.5	773.0	82.6	66.2	82.6	66.2	75.6	57.2	7235	82.6
1990	5149.8	773.0	83.0	67.1	83.0	67.1	76.1	58.2	7272	83.0
1991	2584.2	773.0	59.9	66.8	59.9	66.7	38.2	57.2	5247	59.9
1992	3077.1	773.0	61.1	66.5	61.1	66.4	45.3	56.6	5364	61.1
1993	4969.0	773.0	80.4	67.1	80.4	67.1	73.4	57.4	7040	80.4
1994	1666.4	773.0	34.3	65.7	34.3	65.7	24.6	56.0	3009	34.3
1995	3477.3	773.0	59.5	65.5	59.5	65.4	51.4	55.8	5209	59.5
1996	2962.1	773.0	48.9	64.8	48.9	64.8	43.6	55.3	4273	48.6
1997	4046.2	773.0	68.6	64.9	68.6	64.9	59.8	55.5	5900	67.4
1998	6234.6	773.0	93.1	66.0	93.1	65.9	92.1	56.8	8157	93.1
1999	6130.0	773.0	91.1	66.9	91.1	66.8	90.5	58.0	7978	91.1
2000	6365.1	773.0	93.8	67.8	93.8	67.7	93.7	59.2	8243	93.8
2001	6466.0	773.0	95.4	68.7	95.4	68.6	95.5	60.4	8359	95.4
2002	6060.9	850.0	90.5	69.4	90.5	69.4	87.3	61.3	7915	90.4
2003	6963.9	850.0	94.2	70.2	94.2	70.2	93.5	62.4	8206	93.7
2004	6436.9	850.0	85.9	70.7	85.9	70.7	86.2	63.2	7544	85.9
2005	7032.4	850.0	93.3	71.5	93.3	71.4	94.4	64.1	8169	93.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		12			710	
B. Refuelling without a maintenance					25	
C. Inspection, maintenance or repair combined with refuelling				1423		
D. Inspection, maintenance or repair without refuelling	577			82		
E. Testing of plant systems or components				1	6	
H. Nuclear regulatory requirements				9	1	1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				10	10	1
Z. Others					2	
Subtotal	577	12	0	1525	754	2
Total		589			2281	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		8
12. Reactor I&C Systems		19
13. Reactor Auxiliary Systems		2
14. Safety Systems		59
15. Reactor Cooling Systems		59
17. Safety I&C Systems (excluding reactor I&C)		70
31. Turbine and auxiliaries	12	202
32. Feedwater and Main Steam System		66
33. Circulating Water System		7
35. All other I&C Systems		1
41. Main Generator Systems		17
42. Electrical Power Supply Systems		98
XX. Miscellaneous Systems		75
Total	12	683

US-331 DUANE ARNOLD-1

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 562.0 MW(e)
Design Net Capacity: 538.0 MW(e)
Design Discharge Burnup: 27800 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4544.5 GW(e).h
Energy Availability Factor: 90.0%
Load Factor: 92.3%
Operating Factor: 90.0%
Energy Unavailability Factor: 10.0%
Total Off-line Time: 879 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	435.0	389.4	335.7	0.0	351.8	417.2	430.7	436.2	424.7	440.8	433.3	449.7	4544.5
EAF (%)	100.0	100.0	87.1	0.0	91.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0
UCF (%)	100.0	100.0	87.1	0.0	91.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0
LF (%)	104.0	103.1	80.3	0.0	84.1	103.1	103.0	104.3	105.0	105.3	107.1	107.6	92.3
OF (%)	100.0	100.0	87.2	0.0	91.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0
EUF (%)	0.0	0.0	12.9	100.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
PUF (%)	0.0	0.0	12.9	100.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1970
Date of First Criticality: 23 Mar 1974
Date of Grid Connection: 19 May 1974
Date of Commercial Operation: 01 Feb 1975

Lifetime Generation: 103587.3 GW(e).h
Cumulative Energy Availability Factor: 76.7%
Cumulative Load Factor: 71.7%
Cumulative Unit Capability Factor: 76.8%
Cumulative Energy Unavailability Factor: 23.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	2099.6	515.0	79.4	79.4	79.4	79.4	50.9	50.9	6298	78.6
1976	2489.4	515.0	55.1	66.7	55.1	66.7	55.0	53.0	6847	77.9
1977	2897.8	515.0	64.3	65.9	64.3	65.9	64.2	56.9	6908	78.9
1978	1227.5	515.0	27.2	56.0	27.2	56.0	27.2	49.3	2902	33.1
1979	2898.9	515.0	64.3	57.7	64.3	57.7	64.3	52.3	6830	78.0
1980	2796.3	515.0	74.8	60.6	73.2	60.3	61.8	53.9	6456	73.5
1981	2219.5	515.0	69.3	61.8	69.3	61.6	49.2	53.3	6108	69.7
1982	2280.4	515.0	74.2	63.4	74.2	63.2	50.5	52.9	6543	74.7
1983	2324.3	515.0	61.8	63.2	61.8	63.0	51.5	52.8	5503	62.8
1984	2717.6	515.0	72.2	64.1	72.2	64.0	60.1	53.5	6402	72.9
1985	1940.5	515.0	52.6	63.1	52.6	62.9	43.0	52.5	4711	53.8
1986	3192.8	515.0	81.5	64.6	81.5	64.5	70.8	54.1	7495	85.6
1987	2546.6	515.0	62.0	64.4	62.0	64.3	56.4	54.3	5513	62.9
1988	3520.2	515.0	72.3	65.0	72.3	64.9	77.0	55.9	7128	81.1
1989	3143.6	538.0	62.5	64.8	62.5	64.7	66.9	56.7	6561	74.9
1990	3021.0	538.0	74.7	65.5	74.7	65.4	64.1	57.2	6498	74.2
1991	4146.8	515.0	93.9	67.2	93.9	67.1	88.9	59.1	8217	93.8
1992	3434.6	515.0	80.5	67.9	80.5	67.8	75.9	60.0	7112	81.0
1993	3241.4	515.0	76.6	68.4	76.5	68.3	71.8	60.6	6755	77.1
1994	4108.4	515.0	92.0	69.6	92.0	69.5	91.1	62.2	8078	92.2
1995	3737.0	515.0	82.4	70.2	82.4	70.1	82.8	63.1	7253	82.8
1996	3938.5	520.0	89.9	71.1	89.9	71.0	86.2	64.2	7906	90.0
1997	4155.5	520.0	92.7	72.0	92.7	71.9	91.2	65.4	8125	92.8
1998	3839.2	520.0	85.2	72.6	85.2	72.5	84.3	66.2	7477	85.4
1999	3649.0	520.0	83.0	73.0	83.0	72.9	80.1	66.7	7267	83.0
2000	4455.7	520.0	97.4	73.9	97.4	73.9	97.5	67.9	8553	97.4
2001	3860.6	565.0	85.4	74.4	85.4	74.3	84.1	68.5	7473	85.3
2002	4581.1	565.0	95.1	75.2	93.6	75.0	92.7	69.5	8147	93.0
2003	3998.6	565.0	83.8	75.5	83.8	75.4	80.8	69.9	7209	82.3
2004	4929.9	565.0	97.9	76.3	97.9	76.2	99.3	71.0	8596	97.9
2005	4544.5	562.0	90.0	76.8	90.0	76.7	92.3	71.7	7882	90.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					456	
B. Refuelling without a maintenance					48	
C. Inspection, maintenance or repair combined with refuelling	877			884		
D. Inspection, maintenance or repair without refuelling				258	0	
E. Testing of plant systems or components				22	3	
H. Nuclear regulatory requirements				51	20	11
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				9	45	4
Subtotal	877	0	0	1224	572	15
Total	877			1811		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		5
13. Reactor Auxiliary Systems		13
14. Safety Systems		19
15. Reactor Cooling Systems		256
17. Safety I&C Systems (excluding reactor I&C)		6
31. Turbine and auxiliaries		47
32. Feedwater and Main Steam System		39
35. All other I&C Systems		2
41. Main Generator Systems		7
42. Electrical Power Supply Systems		21
XX. Miscellaneous Systems		2
Total	0	417

US-341 ENRICO FERMI-2

Operator: DETED (DETROIT EDISON CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 1111.0 MW(e)

Design Net Capacity: 1093.0 MW(e)

Design Discharge Burnup: 19404 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8767.6 GW(e).h

Energy Availability Factor: 90.8%

Load Factor: 90.1%

Operating Factor: 90.8%

Energy Unavailability Factor: 9.2%

Total Off-line Time: 806 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	638.8	583.0	836.4	795.5	824.9	653.1	389.0	808.5	788.0	817.5	803.3	829.5	8767.6
EAF (%)	74.2	81.7	100.0	100.0	100.0	83.3	50.7	100.0	100.0	100.0	100.0	100.0	90.8
UCF (%)	74.2	81.7	100.0	100.0	100.0	83.3	50.7	100.0	100.0	100.0	100.0	100.0	90.8
LF (%)	77.3	78.1	101.2	99.4	99.8	81.6	47.1	97.8	98.5	98.8	100.4	100.4	90.1
OF (%)	76.3	79.2	100.0	99.9	100.0	83.6	50.1	100.0	100.0	100.0	100.0	100.0	90.8
EUF (%)	25.8	18.3	0.0	0.0	0.0	16.7	49.3	0.0	0.0	0.0	0.0	0.0	9.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	25.8	18.3	0.0	0.0	0.0	16.7	49.3	0.0	0.0	0.0	0.0	0.0	9.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 May 1969 Lifetime Generation: 121818.2 GW(e).h

Date of First Criticality: 21 Jun 1985 Cumulative Energy Availability Factor: 76.0%

Date of Grid Connection: 21 Sep 1986 Cumulative Load Factor: 72.9%

Date of Commercial Operation: 23 Jan 1988 Cumulative Unit Capability Factor: 76.0%

 Cumulative Energy Unavailability Factor: 24.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	4060.1	1093.0	57.0	57.0	57.0	57.0	45.0	45.0	4719	57.2
1989	5230.7	1093.0	63.4	60.3	63.4	60.3	54.6	50.0	5575	63.6
1990	7118.3	1047.0	82.3	67.6	82.3	67.6	76.7	58.9	7266	82.9
1991	6180.9	1060.0	72.8	68.9	72.8	68.9	66.6	60.8	6466	73.8
1992	7356.8	1060.0	79.1	71.0	79.1	71.0	79.0	64.5	7019	79.9
1993	8284.7	1085.0	92.1	74.6	92.1	74.6	87.2	68.3	8076	92.2
1994	0.0	1085.0	0.0	63.7	0.0	63.7	0.0	58.4	0	0.0
1995	5132.0	876.0	71.7	64.7	71.7	64.7	58.7	58.4	6509	74.3
1996	4790.0	876.0	58.2	64.1	58.2	64.1	62.3	58.8	5859	66.7
1997	5579.9	1098.0	70.5	64.7	70.5	64.7	63.6	59.3	5461	62.3
1998	7146.8	1098.0	78.4	66.0	78.4	66.0	74.3	60.7	6868	78.4
1999	9484.7	1080.0	99.3	68.9	99.3	68.9	100.1	64.1	8698	99.3
2000	8237.8	1089.0	85.7	70.2	85.7	70.2	86.6	65.9	7514	85.5
2001	8564.0	1089.0	89.3	71.6	89.3	71.6	89.8	67.7	7837	89.5
2002	9302.9	1089.0	98.5	73.5	98.5	73.5	97.5	69.7	8630	98.5
2003	8127.8	1089.0	85.3	74.2	85.3	74.2	85.2	70.7	7479	85.4
2004	8453.1	1089.0	88.2	75.1	88.2	75.1	88.4	71.8	7764	88.4
2005	8767.6	1111.0	90.8	76.0	90.8	76.0	90.1	72.9	7955	90.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		802		11	1117	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling				665		
D. Inspection, maintenance or repair without refuelling				220	2	
H. Nuclear regulatory requirements					3	
J. Grid failure or grid unavailability					7	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	
Subtotal	0	802	0	896	1140	0
Total		802			2036	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	802	
12. Reactor I&C Systems		27
13. Reactor Auxiliary Systems		65
14. Safety Systems		19
15. Reactor Cooling Systems		24
17. Safety I&C Systems (excluding reactor I&C)		23
31. Turbine and auxiliaries		551
32. Feedwater and Main Steam System		7
33. Circulating Water System		3
35. All other I&C Systems		19
41. Main Generator Systems		192
42. Electrical Power Supply Systems		120
XX. Miscellaneous Systems		63
Total	802	1113

US-348 FARLEY-1

Operator: SOUTH (Southern Nuclear Operating Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 833.0 MW(e)
Design Net Capacity: 829.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7402.2 GW(e).h
Energy Availability Factor: 99.4%
Load Factor: 101.4%
Operating Factor: 99.4%
Energy Unavailability Factor: 0.6%
Total Off-line Time: 52 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	641.4	580.0	641.9	609.7	599.4	551.9	633.2	631.4	614.4	639.2	618.8	640.9	7402.2
EAF (%)	100.0	100.0	100.0	100.0	100.0	92.9	100.0	100.0	100.0	100.0	100.0	100.0	99.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	92.9	100.0	100.0	100.0	100.0	100.0	100.0	99.4
LF (%)	103.5	103.6	103.6	101.7	96.7	92.0	102.2	101.9	102.4	103.0	103.2	103.4	101.4
OF (%)	100.0	100.0	100.0	99.9	100.0	92.9	100.0	100.0	100.0	100.0	100.0	100.0	99.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1970
Date of First Criticality: 09 Aug 1977
Date of Grid Connection: 18 Aug 1977
Date of Commercial Operation: 01 Dec 1977

Lifetime Generation: 162851.9 GW(e).h
Cumulative Energy Availability Factor: 82.2%
Cumulative Load Factor: 80.3%
Cumulative Unit Capability Factor: 82.4%
Cumulative Energy Unavailability Factor: 17.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	395.9	829.0	100.0	100.0	100.0	100.0	64.2	64.2	512	68.8
1978	5919.8	829.0	81.5	83.0	81.5	83.0	81.5	80.2	7568	86.4
1979	1732.4	829.0	23.9	54.6	23.9	54.6	23.9	53.2	2502	28.6
1980	4607.8	814.0	74.4	61.0	70.2	59.6	64.4	56.8	6110	69.6
1981	2653.0	804.0	41.5	56.3	41.5	55.3	37.7	52.2	3624	41.4
1982	5233.3	804.0	79.3	60.7	79.3	59.9	74.3	56.5	6936	79.2
1983	5268.6	804.0	77.7	63.5	77.7	62.8	74.8	59.4	6832	78.0
1984	5432.7	804.0	78.5	65.6	78.5	65.0	76.9	61.9	6920	78.8
1985	5868.7	816.0	84.3	67.9	84.3	67.4	82.1	64.4	7378	84.2
1986	5738.6	827.0	82.4	69.5	82.4	69.1	79.2	66.1	7247	82.7
1987	6444.9	825.0	93.7	72.0	93.7	71.5	89.2	68.4	8201	93.6
1988	5908.2	813.0	83.8	73.0	83.8	72.6	82.7	69.7	7363	83.8
1989	6022.6	824.0	86.0	74.1	86.0	73.8	83.4	70.8	7520	85.8
1990	6908.6	824.0	99.1	76.0	99.1	75.7	95.7	72.7	8681	99.1
1991	5416.1	814.0	78.9	76.2	78.4	75.9	76.0	73.0	6870	78.4
1992	5667.9	812.0	81.0	76.6	81.0	76.2	79.5	73.4	7119	81.0
1993	6873.9	812.0	97.3	77.8	97.3	77.5	96.6	74.8	8522	97.3
1994	6059.8	812.0	86.1	78.3	86.1	78.0	85.2	75.4	7546	86.1
1995	5752.0	812.0	82.4	78.5	82.4	78.3	80.9	75.7	7220	82.4
1996	7142.3	812.0	99.5	79.6	99.5	79.4	100.1	77.0	8740	99.5
1997	5434.0	822.0	77.7	79.5	77.7	79.3	75.5	76.9	6803	77.7
1998	5237.9	822.0	74.8	79.3	74.8	79.1	72.7	76.7	6539	74.6
1999	7226.5	847.0	99.3	80.2	99.3	80.0	97.4	77.7	8695	99.3
2000	5204.1	828.0	76.8	80.1	76.8	79.9	71.6	77.4	6775	77.1
2001	6392.5	833.0	88.3	80.4	88.3	80.3	87.6	77.9	7736	88.3
2002	7221.8	833.0	98.7	81.2	98.7	81.0	99.0	78.7	8641	98.6
2003	6609.9	830.0	90.3	81.5	90.3	81.4	90.9	79.2	7909	90.3
2004	6423.9	851.0	87.0	81.7	87.0	81.6	86.8	79.5	7627	86.8
2005	7402.2	833.0	99.4	82.4	99.4	82.2	101.4	80.3	8709	99.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		50			254	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	1109					
D. Inspection, maintenance or repair without refuelling	69					
E. Testing of plant systems or components	2	0				
H. Nuclear regulatory requirements		8				12
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)		3				6
Subtotal	0	50	0	1180	280	18
Total		50			1478	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems	50	10
13. Reactor Auxiliary Systems		1
14. Safety Systems		4
15. Reactor Cooling Systems		8
16. Steam generation systems		17
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		118
32. Feedwater and Main Steam System		17
35. All other I&C Systems		2
41. Main Generator Systems		6
42. Electrical Power Supply Systems		60
XX. Miscellaneous Systems		1
Total	50	247

US-364 FARLEY-2

Operator: SOUTH (Southern Nuclear Operating Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 842.0 MW(e)
Design Net Capacity: 829.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6351.7 GW(e).h
Energy Availability Factor: 86.4%
Load Factor: 86.1%
Operating Factor: 86.4%
Energy Unavailability Factor: 13.6%
Total Off-line Time: 1194 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	644.7	583.1	644.1	616.2	639.7	618.5	638.2	638.9	580.5	207.8	0.0	540.1	6351.7
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	45.2	0.0	91.4	86.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	45.2	0.0	91.4	86.4
LF (%)	102.9	103.0	102.8	101.6	102.1	102.0	101.9	102.0	95.8	33.2	0.0	86.2	86.1
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	45.2	0.0	91.3	86.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.8	100.0	8.6	13.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.8	100.0	8.6	13.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Oct 1970	Lifetime Generation:	148974.3 GW(e).h
Date of First Criticality:	05 May 1981	Cumulative Energy Availability Factor:	86.5%
Date of Grid Connection:	25 May 1981	Cumulative Load Factor:	83.8%
Date of Commercial Operation:	30 Jul 1981	Cumulative Unit Capability Factor:	86.5%
		Cumulative Energy Unavailability Factor:	13.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	2920.8	826.0	95.3	95.3	95.3	95.3	80.1	80.1	3665	83.0
1982	5311.3	814.0	79.4	84.8	79.4	84.8	74.5	76.4	6931	79.1
1983	5984.1	814.0	87.7	86.0	87.7	86.0	83.9	79.4	7696	87.9
1984	6618.9	814.0	94.4	88.4	94.2	88.3	92.6	83.1	8276	94.2
1985	5474.2	809.0	77.8	86.1	77.4	85.9	77.2	81.8	6813	77.8
1986	5959.9	829.0	85.2	85.9	85.2	85.8	82.1	81.9	7455	85.1
1987	4910.4	824.0	73.0	83.9	73.0	83.8	68.0	79.7	6396	73.0
1988	6550.4	823.0	100.0	86.1	100.0	86.0	90.6	81.2	8039	91.5
1989	5621.6	830.0	80.5	85.4	80.5	85.3	77.3	80.7	7037	80.3
1990	5277.0	828.0	71.8	84.0	71.8	83.9	72.8	79.9	6478	73.9
1991	6739.9	824.0	96.0	85.1	95.6	85.0	93.4	81.2	8376	95.6
1992	5409.9	824.0	79.5	84.6	79.5	84.5	74.7	80.6	6987	79.5
1993	5248.5	822.0	75.8	83.9	75.8	83.8	72.9	80.0	6644	75.8
1994	7147.2	822.0	98.9	85.0	98.9	84.9	99.3	81.4	8660	98.9
1995	5091.4	822.0	79.7	84.7	79.7	84.6	70.7	80.7	6984	79.7
1996	5741.3	822.0	81.5	84.4	81.5	84.4	79.5	80.6	7160	81.5
1997	7280.9	822.0	100.0	85.4	100.0	85.3	101.1	81.8	8760	100.0
1998	6271.4	852.0	85.8	85.4	85.8	85.4	86.8	82.1	7514	85.8
1999	5356.2	852.0	82.7	85.3	82.7	85.2	71.8	81.6	7242	82.7
2000	7362.6	838.0	99.4	86.0	99.4	85.9	99.9	82.5	8736	99.5
2001	5777.7	842.0	79.0	85.7	79.0	85.6	78.3	82.3	6921	79.0
2002	6463.4	842.0	87.7	85.8	87.7	85.7	87.6	82.6	7682	87.7
2003	7379.4	839.0	99.2	86.4	99.2	86.3	100.4	83.4	8687	99.2
2004	6724.1	849.0	90.5	86.5	90.5	86.5	90.7	83.7	7949	90.5
2005	6351.7	842.0	86.4	86.5	86.4	86.5	86.1	83.8	7566	86.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					170	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	1192			876		
D. Inspection, maintenance or repair without refuelling				28		
E. Testing of plant systems or components				9		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				9	5	2
Subtotal	1192	0	0	922	188	2
Total	1192			1112		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		20
13. Reactor Auxiliary Systems		10
14. Safety Systems		22
15. Reactor Cooling Systems		50
16. Steam generation systems		19
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System		7
35. All other I&C Systems		1
41. Main Generator Systems		5
42. Electrical Power Supply Systems		1
Total	0	155

US-333 FITZPATRICK

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 825.0 MW(e)
Design Net Capacity: 821.0 MW(e)
Design Discharge Burnup: 31800 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7052.3 GW(e).h
Energy Availability Factor: 95.9%
Load Factor: 97.6%
Operating Factor: 95.9%
Energy Unavailability Factor: 4.1%
Total Off-line Time: 358 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	623.3	575.7	637.4	615.5	611.3	605.6	341.7	615.9	546.3	632.3	613.9	633.5	7052.3
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	60.2	100.0	91.7	100.0	100.0	100.0	95.9
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	60.2	100.0	91.7	100.0	100.0	100.0	95.9
LF (%)	101.5	103.8	103.8	103.6	99.6	101.9	55.7	100.3	92.0	102.9	103.3	103.2	97.6
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	60.1	100.0	91.7	100.0	100.0	100.0	95.9
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	39.8	0.0	8.3	0.0	0.0	0.0	4.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	39.8	0.0	8.3	0.0	0.0	0.0	4.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1968
Date of First Criticality: 17 Nov 1974
Date of Grid Connection: 01 Feb 1975
Date of Commercial Operation: 28 Jul 1975

Lifetime Generation: 151964.6 GW(e).h
Cumulative Energy Availability Factor: 74.9%
Cumulative Load Factor: 71.6%
Cumulative Unit Capability Factor: 75.0%
Cumulative Energy Unavailability Factor: 25.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	1824.1	821.0	100.0	100.0	100.0	100.0	50.3	50.3	3230	73.1
1976	4156.4	670.0	70.5	81.7	70.5	81.7	70.6	62.9	6284	71.5
1977	3893.4	770.0	57.7	71.8	57.7	71.8	57.7	60.7	5986	68.3
1978	4197.4	800.0	59.9	68.2	59.9	68.2	59.9	60.5	6311	72.0
1979	2964.7	800.0	42.3	62.2	42.3	62.2	42.3	56.3	4450	50.8
1980	4334.1	802.0	71.0	63.9	70.4	63.7	61.5	57.3	6162	70.2
1981	4779.7	810.0	74.7	65.6	74.7	65.5	67.4	58.9	6539	74.6
1982	4959.7	810.0	75.3	66.9	75.3	66.9	69.9	60.4	6570	75.0
1983	4634.3	810.0	70.7	67.4	70.7	67.3	65.3	61.0	6183	70.6
1984	4899.4	810.0	76.9	68.4	76.9	68.3	68.9	61.8	6745	76.8
1985	4166.5	810.0	64.1	68.0	64.1	67.9	58.7	61.5	5576	63.7
1986	6015.6	796.0	90.5	70.0	90.5	69.9	86.1	63.7	7931	90.5
1987	4198.3	794.0	67.1	69.7	67.1	69.7	60.3	63.4	5891	67.2
1988	4356.9	778.0	66.5	69.5	66.5	69.5	63.5	63.4	5844	66.5
1989	6155.3	757.0	90.3	70.9	90.3	70.8	92.8	65.4	7944	90.7
1990	4601.9	782.0	68.4	70.7	68.4	70.7	67.2	65.5	6045	69.0
1991	3376.8	780.0	56.0	69.8	56.0	69.8	49.4	64.5	4534	51.8
1992	0.0	780.0	0.0	65.9	0.0	65.8	0.0	60.9	0	0.0
1993	4746.5	780.0	71.6	66.2	71.6	66.1	69.5	61.3	6301	71.9
1994	4972.6	774.0	81.9	67.0	81.9	66.9	73.3	61.9	7224	82.5
1995	4804.0	780.0	71.6	67.2	71.6	67.2	70.5	62.3	6336	72.3
1996	5290.4	762.0	79.3	67.7	79.3	67.7	78.6	63.1	7036	80.1
1997	6624.6	799.0	96.3	69.0	94.9	68.9	94.6	64.5	8310	94.9
1998	4930.5	785.0	75.2	69.3	75.2	69.2	71.7	64.8	6613	75.5
1999	6567.4	813.0	93.5	70.3	93.5	70.2	93.7	66.0	8205	93.7
2000	6024.8	813.0	86.6	71.0	86.6	70.9	84.4	66.8	7617	86.7
2001	7090.5	813.0	98.6	72.0	98.6	72.0	99.6	68.0	8639	98.6
2002	6595.0	813.0	92.4	72.8	92.4	72.7	92.6	69.0	8112	92.6
2003	6966.0	813.0	96.2	73.6	96.2	73.6	97.8	70.0	8435	96.3
2004	6455.9	813.0	90.8	74.2	90.8	74.2	90.4	70.7	7984	90.9
2005	7052.3	825.0	95.9	75.0	95.9	74.9	97.6	71.6	8403	95.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		59			444	
B. Refuelling without a maintenance					60	
C. Inspection, maintenance or repair combined with refuelling	1208					
D. Inspection, maintenance or repair without refuelling	256					
E. Testing of plant systems or components	2				1	
H. Nuclear regulatory requirements		296			2	138
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	4				24	4
Subtotal	0	355	0	1470	531	144
Total		355			2145	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		17
13. Reactor Auxiliary Systems		9
14. Safety Systems		91
15. Reactor Cooling Systems		55
31. Turbine and auxiliaries		70
32. Feedwater and Main Steam System		43
35. All other I&C Systems		6
41. Main Generator Systems	59	22
42. Electrical Power Supply Systems		52
XX. Miscellaneous Systems		20
Total	59	388

US-285 FORT CALHOUN-1

Operator: OPPD (OMAHA PUBLIC POWER DISTRICT)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 476.0 MW(e)
Design Net Capacity: 478.0 MW(e)
Design Discharge Burnup: 13500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 2919.6 GW(e).h
Energy Availability Factor: 71.7%
Load Factor: 70.0%
Operating Factor: 71.6%
Energy Unavailability Factor: 28.3%
Total Off-line Time: 2484 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	363.9	291.8	0.0	0.0	0.0	146.3	352.4	353.7	342.8	350.4	353.1	365.2	2919.6
EAF (%)	100.0	89.3	0.0	0.0	2.4	69.4	100.0	100.0	100.0	100.0	100.0	100.0	71.7
UCF (%)	100.0	89.3	0.0	0.0	2.4	69.4	100.0	100.0	100.0	100.0	100.0	100.0	71.7
LF (%)	102.8	91.2	0.0	0.0	0.0	42.7	99.5	99.9	100.0	98.8	103.0	103.1	70.0
OF (%)	100.0	92.4	0.0	0.0	0.0	68.8	100.0	100.0	100.0	100.0	100.0	100.0	71.6
EUF (%)	0.0	10.7	100.0	100.0	97.6	30.6	0.0	0.0	0.0	0.0	0.0	0.0	28.3
PUF (%)	0.0	10.7	100.0	100.0	97.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	30.7	0.0	0.0	0.0	0.0	0.0	0.0	2.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1968
Date of First Criticality: 06 Aug 1973
Date of Grid Connection: 25 Aug 1973
Date of Commercial Operation: 20 Jun 1974

Lifetime Generation: 99562.2 GW(e).h
Cumulative Energy Availability Factor: 79.7%
Cumulative Load Factor: 75.1%
Cumulative Unit Capability Factor: 79.7%
Cumulative Energy Unavailability Factor: 20.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	1678.5	457.0	94.0	94.0	94.0	94.0	71.5	71.5	4826	94.0
1975	2080.8	457.0	52.0	67.5	52.0	67.5	52.0	59.2	5905	67.4
1976	2195.5	443.0	56.5	63.3	56.5	63.3	56.4	58.1	6101	69.5
1977	2922.7	444.0	75.1	66.6	75.1	66.6	75.1	62.8	6958	79.4
1978	2849.4	456.0	71.4	67.6	71.4	67.6	71.3	64.7	6580	75.1
1979	3666.1	457.0	91.6	72.0	91.6	72.0	91.6	69.6	8382	95.7
1980	2010.3	465.0	59.7	70.0	59.7	70.0	49.2	66.4	5307	60.4
1981	2149.7	480.0	72.7	70.4	72.7	70.4	51.1	64.3	6327	72.2
1982	3482.1	478.0	89.8	72.8	89.8	72.8	83.2	66.6	7856	89.7
1983	2749.9	461.0	73.1	72.8	73.1	72.8	68.1	66.7	6404	73.1
1984	2331.8	478.0	60.1	71.6	60.1	71.6	55.5	65.6	5262	59.9
1985	3066.3	478.0	73.7	71.7	73.7	71.7	73.2	66.3	6454	73.7
1986	3605.6	478.0	94.3	73.6	94.3	73.6	86.1	67.9	8263	94.3
1987	3060.6	478.0	74.7	73.7	74.7	73.7	73.1	68.3	6531	74.6
1988	2627.4	478.0	74.0	73.7	74.0	73.7	62.6	67.9	6496	74.0
1989	3296.0	478.0	87.8	74.6	87.8	74.6	78.7	68.6	7589	86.6
1990	2417.2	478.0	62.1	73.8	62.1	73.8	57.7	67.9	5420	61.9
1991	3249.0	478.0	92.9	75.0	92.9	75.0	77.6	68.5	7946	90.7
1992	2537.1	478.0	64.9	74.4	64.9	74.4	60.4	68.1	5683	64.7
1993	3102.2	478.0	80.0	74.7	80.0	74.7	74.1	68.4	6996	79.9
1994	4118.7	478.0	99.5	75.9	99.5	75.9	98.4	69.9	8711	99.4
1995	3365.6	478.0	82.4	76.2	82.4	76.2	80.4	70.4	7204	82.2
1996	3128.7	478.0	78.5	76.3	78.5	76.3	74.5	70.5	6886	78.4
1997	3818.2	478.0	92.9	77.0	92.9	77.0	91.2	71.4	8131	92.8
1998	3396.6	478.0	82.2	77.2	82.2	77.2	81.1	71.8	7195	82.1
1999	3584.4	478.0	88.9	77.7	88.9	77.7	85.6	72.4	7785	88.9
2000	3898.1	478.0	93.2	78.3	93.2	78.3	92.8	73.2	8185	93.2
2001	3524.1	478.0	88.0	78.7	88.0	78.7	84.2	73.6	7702	87.9
2002	3808.5	478.0	92.1	79.1	92.1	79.1	91.0	74.2	8061	92.0
2003	3510.1	478.0	86.8	79.4	86.8	79.4	83.8	74.5	7596	86.7
2004	4071.3	478.0	96.8	80.0	96.8	80.0	97.0	75.3	8503	96.8
2005	2919.6	476.0	71.7	79.7	71.7	79.7	70.0	75.1	6277	71.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		220			178	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	2262			1242		
D. Inspection, maintenance or repair without refuelling				77	14	
E. Testing of plant systems or components				30		
G. Major back-fitting, refurbishment or upgrading activities without refuelling						0
H. Nuclear regulatory requirements						5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				5	16	0
Subtotal	2262	220	0	1354	209	5
Total		2482			1568	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		12
13. Reactor Auxiliary Systems		7
14. Safety Systems		15
15. Reactor Cooling Systems	220	53
16. Steam generation systems		5
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System		16
42. Electrical Power Supply Systems		40
XX. Miscellaneous Systems		7
Total	220	172

US-416 GRAND GULF-1

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1263.0 MW(e)

Design Net Capacity: 1250.0 MW(e)

Design Discharge Burnup: 28000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10077.8 GW(e).h

Energy Availability Factor: 91.1%

Load Factor: 91.1%

Operating Factor: 91.0%

Energy Unavailability Factor: 8.9%

Total Off-line Time: 786 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	960.1	764.9	962.6	925.3	948.8	915.4	941.3	926.9	517.1	352.0	926.5	936.8	10077.8
EAF (%)	100.0	92.1	100.0	100.0	100.0	100.0	100.0	100.0	56.7	43.7	100.0	100.0	91.1
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	56.7	43.7	100.0	100.0	91.7
LF (%)	102.2	90.1	102.4	101.8	101.0	100.7	100.2	98.6	56.9	37.5	101.9	99.7	91.1
OF (%)	100.0	92.1	100.0	99.9	100.0	100.0	100.0	100.0	59.2	41.1	100.0	100.0	91.0
EUF (%)	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	43.3	56.3	0.0	0.0	8.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.3	54.6	0.0	0.0	8.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.1
XUF (%)	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1974

Date of First Criticality: 18 Aug 1982

Date of Grid Connection: 20 Oct 1984

Date of Commercial Operation: 01 Jul 1985

Lifetime Generation: 183315.5 GW(e).h

Cumulative Energy Availability Factor: 85.8%

Cumulative Load Factor: 86.2%

Cumulative Unit Capability Factor: 86.0%

Cumulative Energy Unavailability Factor: 14.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	2654.1	1108.0	58.7	58.7	58.7	58.7	54.2	54.2	2691	60.9
1986	4098.1	1108.0	60.5	59.9	60.5	59.9	42.2	46.2	5326	60.8
1987	7727.0	1142.0	80.9	68.4	80.9	68.4	78.0	59.1	7098	81.0
1988	9591.0	1142.0	93.8	75.8	93.8	75.8	95.6	69.7	8250	93.9
1989	7846.3	1142.0	76.9	76.0	76.9	76.0	78.4	71.7	6815	77.8
1990	7404.0	1142.0	76.6	76.1	76.6	76.1	74.0	72.1	6765	77.2
1991	9118.7	1143.0	89.6	78.2	88.4	78.0	91.1	75.0	8035	91.7
1992	8171.1	1143.0	81.1	78.6	81.1	78.4	81.4	75.9	7163	81.5
1993	7898.5	1143.0	77.6	78.5	77.6	78.3	78.9	76.2	6845	78.1
1994	9614.8	1143.0	94.5	80.2	94.5	80.1	96.0	78.3	8284	94.6
1995	7809.7	1173.0	77.7	79.9	77.7	79.8	77.3	78.2	6829	78.0
1996	9224.7	1179.0	87.7	80.6	87.7	80.5	89.3	79.2	7696	87.6
1997	10817.6	1200.0	100.0	82.3	100.0	82.2	102.9	81.2	8760	100.0
1998	9190.8	1204.0	87.5	82.7	87.5	82.6	87.4	81.7	7641	87.2
1999	8428.4	1204.0	79.3	82.4	79.3	82.3	79.9	81.6	6944	79.3
2000	10694.6	1210.0	99.2	83.6	98.3	83.4	100.7	82.9	8634	98.3
2001	9924.0	1210.0	92.3	84.1	91.8	83.9	93.6	83.5	8040	91.8
2002	10059.5	1207.0	93.8	84.7	92.9	84.5	95.1	84.2	8139	92.9
2003	10902.5	1207.0	97.9	85.4	97.9	85.2	103.1	85.3	8574	97.9
2004	10235.1	1207.0	91.2	85.7	91.2	85.5	96.5	85.9	8047	91.6
2005	10077.8	1263.0	91.7	86.0	91.1	85.8	91.1	86.2	7974	91.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		12			240	
B. Refuelling without a maintenance					33	
C. Inspection, maintenance or repair combined with refuelling	718			698	21	
D. Inspection, maintenance or repair without refuelling				108	3	
E. Testing of plant systems or components				0	0	
H. Nuclear regulatory requirements					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					39	13
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			53		6	
Subtotal	718	12	53	806	343	13
Total	783			1162		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		27
14. Safety Systems		2
15. Reactor Cooling Systems		44
17. Safety I&C Systems (excluding reactor I&C)		14
31. Turbine and auxiliaries	12	27
32. Feedwater and Main Steam System		17
33. Circulating Water System		3
35. All other I&C Systems		6
41. Main Generator Systems		14
42. Electrical Power Supply Systems		42
XX. Miscellaneous Systems		29
Total	12	231

US-261 H.B. ROBINSON-2

Operator: PROGRESS (Progress Energy Corporation)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 710.0 MW(e)
Design Net Capacity: 700.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5770.1 GW(e).h
Energy Availability Factor: 89.5%
Load Factor: 92.8%
Operating Factor: 89.5%
Energy Unavailability Factor: 10.5%
Total Off-line Time: 921 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	561.9	507.5	551.1	538.5	547.2	525.4	535.7	533.9	273.4	90.8	542.8	561.9	5770.1
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	53.3	21.5	100.0	100.0	89.5
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	53.3	21.5	100.0	100.0	89.5
LF (%)	106.4	106.4	104.3	105.3	103.6	102.8	101.4	101.1	53.5	17.2	106.2	106.4	92.8
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	53.3	21.5	100.0	100.0	89.5
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	78.5	0.0	0.0	10.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	78.5	0.0	0.0	10.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Apr 1967	Lifetime Generation:	154384.5 GW(e).h
Date of First Criticality:	20 Sep 1970	Cumulative Energy Availability Factor:	77.4%
Date of Grid Connection:	26 Sep 1970	Cumulative Load Factor:	74.1%
Date of Commercial Operation:	07 Mar 1971	Cumulative Unit Capability Factor:	77.6%
		Cumulative Energy Unavailability Factor:	22.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	2337.3	739.0	100.0	100.0	100.0	100.0	43.1	43.1	3534	48.1
1972	5082.4	739.0	100.0	100.0	100.0	100.0	78.3	62.3	7487	85.2
1973	3765.5	715.0	75.7	91.6	75.7	91.6	60.1	61.5	6591	75.2
1974	4813.1	700.0	83.3	89.5	83.3	89.5	78.5	65.8	7297	83.3
1975	4170.9	665.0	71.0	86.0	71.0	86.0	71.6	66.9	6316	72.1
1976	4874.2	667.0	82.5	85.4	82.5	85.4	83.2	69.6	7435	84.6
1977	4130.2	665.0	70.8	83.4	70.8	83.4	70.9	69.8	7462	85.2
1978	3980.0	665.0	68.2	81.5	68.2	81.5	68.3	69.6	6307	72.0
1979	4005.1	665.0	68.7	80.1	68.7	80.1	68.8	69.5	6172	70.5
1980	3210.9	665.0	61.9	78.3	61.9	78.3	55.0	68.1	5464	62.2
1981	3510.8	665.0	81.1	78.6	73.4	77.9	60.3	67.4	6391	73.0
1982	2268.4	665.0	47.9	76.0	47.9	75.4	38.9	65.0	4278	48.8
1983	3347.5	665.0	75.5	76.0	75.5	75.4	57.5	64.5	6609	75.4
1984	224.3	665.0	7.0	71.1	7.0	70.6	3.8	60.2	615	7.0
1985	5239.9	665.0	87.6	72.2	87.6	71.7	89.9	62.1	7697	87.9
1986	4799.6	665.0	79.7	72.7	79.7	72.2	82.4	63.4	7028	80.2
1987	4235.5	665.0	70.3	72.5	70.3	72.1	72.7	63.9	6224	71.1
1988	3182.4	665.0	64.2	72.1	64.2	71.7	54.5	63.4	5717	65.1
1989	2790.5	665.0	45.5	70.7	45.5	70.3	47.9	62.6	4107	46.9
1990	3319.2	665.0	63.1	70.3	63.1	69.9	57.0	62.3	5614	64.1
1991	4792.2	683.0	80.2	70.8	80.2	70.4	81.3	63.2	7048	80.5
1992	4062.9	683.0	66.2	70.6	66.2	70.2	67.7	63.4	5812	66.2
1993	4193.3	683.0	70.1	70.6	70.1	70.2	70.1	63.7	6137	70.1
1994	4655.1	683.0	78.2	70.9	78.2	70.6	77.8	64.3	6845	78.1
1995	5033.8	683.0	84.0	71.4	84.0	71.1	84.1	65.1	7356	84.0
1996	5460.1	683.0	88.2	72.1	88.2	71.8	91.0	66.1	7745	88.2
1997	6197.6	683.0	98.9	73.1	98.9	72.8	103.6	67.5	8662	98.9
1998	5505.6	683.0	88.5	73.6	88.5	73.4	92.0	68.4	7751	88.5
1999	5684.5	683.0	91.4	74.3	91.4	74.0	95.0	69.4	8009	91.4
2000	6237.1	683.0	99.6	75.1	99.6	74.9	104.0	70.5	8750	99.6
2001	5515.0	683.0	90.4	75.6	90.4	75.4	92.2	71.2	7919	90.4
2002	5606.1	683.0	90.9	76.1	90.9	75.9	93.7	71.9	7960	90.9
2003	6439.9	710.0	100.0	76.9	100.0	76.6	103.5	72.9	8760	100.0
2004	5742.2	710.0	88.9	77.2	88.9	77.0	92.1	73.5	7811	88.9
2005	5770.1	710.0	89.5	77.6	89.5	77.4	92.8	74.1	7839	89.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					547	
B. Refuelling without a maintenance					64	
C. Inspection, maintenance or repair combined with refuelling	920			1202		
D. Inspection, maintenance or repair without refuelling				44		
E. Testing of plant systems or components				0	0	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				2		
H. Nuclear regulatory requirements					117	18
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					39	0
Subtotal	920	0	0	1248	767	18
Total	920			2033		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		40
13. Reactor Auxiliary Systems		3
14. Safety Systems		39
15. Reactor Cooling Systems		68
16. Steam generation systems		127
31. Turbine and auxiliaries		96
32. Feedwater and Main Steam System		41
35. All other I&C Systems		0
41. Main Generator Systems		0
42. Electrical Power Supply Systems		88
XX. Miscellaneous Systems		15
Total	0	517

US-321 HATCH-1

Operator: SOUTH (Southern Nuclear Operating Co.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 856.0 MW(e)
Design Net Capacity: 777.0 MW(e)
Design Discharge Burnup: 17000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6993.5 GW(e).h
Energy Availability Factor: 92.7%
Load Factor: 93.3%
Operating Factor: 92.7%
Energy Unavailability Factor: 7.3%
Total Off-line Time: 639 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	420.2	605.0	669.3	620.6	654.1	637.2	646.2	655.2	629.9	593.1	277.7	584.9	6993.5
EAF (%)	69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.3	53.5	100.0	92.7
UCF (%)	69.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.3	53.5	100.0	92.7
LF (%)	66.0	105.2	105.1	100.7	102.7	103.4	101.5	102.9	102.2	93.1	45.1	91.8	93.3
OF (%)	69.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	92.1	51.7	100.0	92.7
EUF (%)	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	46.5	0.0	7.3
PUF (%)	29.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
UCLF (%)	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	46.5	0.0	4.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1968
Date of First Criticality: 12 Sep 1974
Date of Grid Connection: 11 Nov 1974
Date of Commercial Operation: 31 Dec 1975

Lifetime Generation: 158877.4 GW(e).h
Cumulative Energy Availability Factor: 78.9%
Cumulative Load Factor: 75.9%
Cumulative Unit Capability Factor: 78.9%
Cumulative Energy Unavailability Factor: 21.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	38.3	786.0	100.0	100.0	100.0	100.0	6.5	6.5	134	18.0
1976	4133.8	786.0	60.0	63.1	60.0	63.1	59.9	55.7	7299	83.1
1977	3716.7	700.0	60.2	61.8	60.2	61.8	60.6	57.9	5802	66.2
1978	4277.2	717.0	68.1	63.8	68.1	63.8	68.1	61.1	6370	72.7
1979	3349.5	739.0	51.7	60.8	51.7	60.8	51.7	58.8	4781	54.6
1980	4790.2	764.0	82.3	65.2	82.1	65.1	71.4	61.4	7174	81.7
1981	2770.7	757.0	50.6	62.7	50.6	62.7	41.8	58.1	4384	50.0
1982	2893.9	758.0	49.4	60.8	49.4	60.8	43.6	56.0	4313	49.2
1983	3968.9	764.0	71.5	62.2	71.5	62.2	59.3	56.4	6240	71.2
1984	3609.2	752.0	62.5	62.2	62.3	62.2	54.6	56.2	5473	62.3
1985	4761.4	752.0	76.5	63.6	76.5	63.6	72.3	57.8	6694	76.4
1986	3645.4	768.0	59.0	63.2	59.0	63.2	54.2	57.5	5162	58.9
1987	5080.7	750.0	80.4	64.6	80.4	64.6	77.3	59.1	7043	80.4
1988	4115.8	756.0	66.0	64.7	66.0	64.7	62.0	59.4	5802	66.1
1989	6479.7	757.0	100.0	67.3	100.0	67.2	97.7	62.1	8760	100.0
1990	4103.4	753.0	65.1	67.1	65.1	67.1	62.2	62.1	5722	65.3
1991	4707.5	741.0	74.6	67.6	74.0	67.5	72.5	62.7	6530	74.5
1992	6157.2	741.0	96.1	69.2	96.1	69.2	94.6	64.6	8444	96.1
1993	4956.7	737.0	78.4	69.7	78.4	69.7	76.8	65.2	6913	78.9
1994	5512.2	741.0	85.8	70.6	85.8	70.5	84.9	66.3	7542	86.1
1995	6465.8	741.0	100.0	72.0	100.0	71.9	99.6	67.9	8760	100.0
1996	5726.7	805.0	87.8	72.8	87.8	72.7	82.6	68.6	7666	87.3
1997	6009.0	800.0	87.9	73.5	87.9	73.5	85.7	69.5	7637	87.2
1998	6951.8	800.0	99.9	74.7	99.9	74.7	99.2	70.8	8751	99.9
1999	5968.8	838.0	82.2	75.1	82.2	75.0	84.3	71.4	7153	81.7
2000	6413.4	863.0	86.2	75.6	86.2	75.5	84.8	72.0	7530	85.7
2001	7496.2	863.0	99.1	76.6	99.1	76.5	99.2	73.2	8689	99.2
2002	6627.1	856.0	88.8	77.1	88.8	77.0	88.4	73.8	7778	88.8
2003	7146.9	856.0	96.3	77.8	96.3	77.8	95.3	74.7	8438	96.3
2004	6896.1	869.0	91.7	78.4	91.7	78.3	90.8	75.3	8046	91.6
2005	6993.5	856.0	92.7	78.9	92.7	78.9	93.3	75.9	8121	92.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		10			395	0
B. Refuelling without a maintenance					22	
C. Inspection, maintenance or repair combined with refuelling				1184		
D. Inspection, maintenance or repair without refuelling	220			98	0	
E. Testing of plant systems or components				0	3	
H. Nuclear regulatory requirements						0
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				3	54	
P. Fire		407				
Subtotal	220	417	0	1285	474	1
Total		637			1760	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		22
13. Reactor Auxiliary Systems		49
14. Safety Systems		38
15. Reactor Cooling Systems		53
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries	10	72
32. Feedwater and Main Steam System		72
33. Circulating Water System		1
35. All other I&C Systems		9
41. Main Generator Systems		32
42. Electrical Power Supply Systems		16
XX. Miscellaneous Systems		10
Total	10	377

US-366 HATCH-2

Operator: SOUTH (Southern Nuclear Operating Co.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 883.0 MW(e)
Design Net Capacity: 784.0 MW(e)
Design Discharge Burnup: 18750 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6727.8 GW(e).h
Energy Availability Factor: 88.2%
Load Factor: 87.0%
Operating Factor: 88.2%
Energy Unavailability Factor: 11.8%
Total Off-line Time: 1037 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	640.0	69.8	341.2	611.8	516.5	636.2	657.2	650.1	636.9	662.4	637.2	668.5	6727.8
EAF (%)	100.0	14.3	57.3	100.0	81.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.2
UCF (%)	100.0	14.3	57.3	100.0	81.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.2
LF (%)	97.4	11.8	51.9	96.2	78.6	100.1	100.0	99.0	100.2	100.7	100.2	101.8	87.0
OF (%)	100.0	14.3	57.1	99.9	81.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.2
EUF (%)	0.0	85.7	42.7	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8
PUF (%)	0.0	85.7	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
UCLF (%)	0.0	0.0	0.0	0.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Feb 1972
Date of First Criticality: 04 Jul 1978
Date of Grid Connection: 22 Sep 1978
Date of Commercial Operation: 05 Sep 1979

Lifetime Generation: 143421.8 GW(e).h
Cumulative Energy Availability Factor: 81.0%
Cumulative Load Factor: 77.0%
Cumulative Unit Capability Factor: 81.1%
Cumulative Energy Unavailability Factor: 19.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1979	1757.0	749.0	100.0	100.0	100.0	100.0	80.1	80.1	2480	84.7
1980	3653.1	767.0	61.0	70.6	59.1	69.2	54.2	60.6	5269	60.0
1981	4481.5	772.0	78.7	74.1	78.7	73.3	66.3	63.0	6872	78.4
1982	3734.2	771.0	63.9	71.0	63.9	70.5	55.3	60.7	5588	63.8
1983	3817.2	771.0	66.1	69.9	66.1	69.5	56.5	59.7	5774	65.9
1984	1893.5	748.0	26.7	62.0	26.7	61.6	28.8	54.1	2833	32.3
1985	5376.1	748.0	82.6	65.2	82.6	64.9	82.0	58.4	7239	82.6
1986	3618.7	777.0	70.4	65.9	70.4	65.6	53.2	57.7	6169	70.4
1987	5755.6	761.0	95.7	69.4	95.7	69.2	86.3	61.1	8388	95.8
1988	4254.5	768.0	65.7	69.0	65.7	68.8	63.1	61.3	5917	67.4
1989	4147.2	768.0	68.6	69.0	68.6	68.8	61.6	61.3	6155	70.3
1990	6527.8	766.0	98.7	71.6	98.7	71.5	97.3	64.5	8649	98.7
1991	4932.2	761.0	74.4	71.8	74.4	71.7	74.0	65.3	6656	76.0
1992	4692.4	765.0	74.5	72.0	74.5	71.9	69.9	65.6	6668	75.9
1993	4999.7	757.0	87.4	73.1	87.4	73.0	75.4	66.3	7734	88.3
1994	5275.6	765.0	85.2	73.9	85.2	73.8	78.7	67.1	7534	86.0
1995	5055.5	809.0	77.4	74.1	77.4	74.0	75.1	67.6	6888	78.6
1996	7021.7	809.0	98.4	75.6	98.4	75.5	98.8	69.5	8639	98.3
1997	6033.6	818.0	86.4	76.2	86.4	76.1	84.2	70.4	7560	86.3
1998	5829.9	855.0	82.8	76.6	82.8	76.5	81.0	70.9	7247	82.7
1999	7073.6	855.0	93.3	77.5	93.3	77.4	94.4	72.2	8173	93.3
2000	6900.3	878.0	89.6	78.1	89.6	78.0	89.9	73.1	7884	89.8
2001	6584.5	878.0	86.3	78.5	86.3	78.5	85.6	73.8	7618	87.0
2002	7423.3	870.0	97.3	79.4	97.3	79.3	97.4	74.9	8544	97.5
2003	6962.5	883.0	91.9	80.0	91.9	79.9	91.1	75.6	8052	91.9
2004	7520.6	883.0	97.8	80.8	97.8	80.7	97.0	76.6	8589	97.8
2005	6727.8	883.0	88.2	81.1	88.2	81.0	87.0	77.0	7724	88.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		140			236	
B. Refuelling without a maintenance					47	
C. Inspection, maintenance or repair combined with refuelling	894			1090		
D. Inspection, maintenance or repair without refuelling				138	2	
E. Testing of plant systems or components				11	95	
H. Nuclear regulatory requirements				2		5
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	44	
Subtotal	894	140	0	1241	424	5
Total	1034			1670		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		6
12. Reactor I&C Systems		17
14. Safety Systems		6
15. Reactor Cooling Systems		57
21. Fuel Handling and Storage Facilities		28
31. Turbine and auxiliaries	140	27
32. Feedwater and Main Steam System		42
33. Circulating Water System		2
41. Main Generator Systems		28
42. Electrical Power Supply Systems		14
Total	140	227

US-354 HOPE CREEK-1

Operator: PSEG (PUBLIC SERVICE ELECTRIC & GAS CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1049.0 MW(e)

Design Net Capacity: 1067.0 MW(e)

Design Discharge Burnup: 30000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7684.8 GW(e).h

Energy Availability Factor: 84.2%

Load Factor: 83.6%

Operating Factor: 84.2%

Energy Unavailability Factor: 15.8%

Total Off-line Time: 1382 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	24.7	686.6	672.3	519.6	813.3	487.4	777.0	703.0	633.9	785.7	764.7	816.6	7684.8
EAF (%)	16.7	100.0	80.6	72.5	100.0	66.8	100.0	87.1	88.3	100.0	100.0	100.0	84.2
UCF (%)	16.7	100.0	80.7	72.5	100.0	66.8	100.0	87.1	88.3	100.0	100.0	100.0	84.2
LF (%)	3.2	97.4	86.1	68.8	104.2	64.5	99.6	90.1	83.9	100.5	101.2	104.6	83.6
OF (%)	16.7	100.0	83.1	69.9	100.0	66.8	100.0	89.4	86.0	100.0	100.0	100.0	84.2
EUF (%)	83.3	0.0	19.4	27.5	0.0	33.2	0.0	12.9	11.7	0.0	0.0	0.0	15.8
PUF (%)	81.3	0.0	19.4	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
UCLF (%)	2.0	0.0	0.0	0.0	0.0	33.2	0.0	12.9	11.7	0.0	0.0	0.0	5.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Mar 1976

Date of First Criticality: 28 Jun 1986

Date of Grid Connection: 01 Aug 1986

Date of Commercial Operation: 20 Dec 1986

Lifetime Generation: 140743.4 GW(e).h

Cumulative Energy Availability Factor: 84.0%

Cumulative Load Factor: 81.4%

Cumulative Unit Capability Factor: 84.0%

Cumulative Energy Unavailability Factor: 16.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986			Data not provided							
1987	7308.7	1067.0	92.7	92.7	92.7	92.7	78.2	78.2	7457	85.1
1988	6470.9	1031.0	79.0	85.9	79.0	85.9	69.4	73.8	6369	72.5
1989	6614.3	1031.0	76.7	82.9	76.7	82.9	73.2	73.6	6717	76.7
1990	8100.1	1031.0	90.7	84.8	90.7	84.8	89.7	77.6	7940	90.6
1991	7402.7	1031.0	83.1	84.5	83.1	84.5	82.0	78.4	7280	83.1
1992	7059.1	1031.0	78.9	83.5	78.9	83.5	77.9	78.4	6930	78.9
1993	8825.3	1031.0	97.4	85.5	97.4	85.5	97.7	81.1	8526	97.3
1994	7125.6	1031.0	79.6	84.8	79.6	84.8	78.9	80.8	6969	79.6
1995	7072.3	1031.0	79.2	84.2	79.2	84.2	78.3	80.5	6937	79.2
1996	6770.7	1031.0	75.4	83.3	75.4	83.3	74.8	80.0	6618	75.3
1997	6417.8	1031.0	74.3	82.5	74.3	82.5	71.1	79.2	6511	74.3
1998	8700.4	1031.0	97.5	83.7	97.5	83.7	96.3	80.6	8539	97.5
1999	7701.1	1031.0	86.1	83.9	86.1	83.9	85.3	80.9	7538	86.1
2000	7271.7	1031.0	82.6	83.8	82.6	83.8	80.3	80.9	7259	82.6
2001	8065.3	1049.0	89.8	84.2	89.8	84.2	88.7	81.4	7859	89.7
2002	8843.1	1049.0	97.7	85.0	97.7	85.0	96.2	82.4	8555	97.7
2003	7260.6	1049.0	81.5	84.8	81.5	84.8	79.0	82.2	7137	81.5
2004	6048.9	1049.0	69.7	84.0	69.7	84.0	65.6	81.2	6123	69.7
2005	7684.8	1049.0	84.2	84.0	84.2	84.0	83.6	81.4	7379	84.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		434			280	
B. Refuelling without a maintenance					20	
C. Inspection, maintenance or repair combined with refuelling	604			901		
D. Inspection, maintenance or repair without refuelling	342			118		
E. Testing of plant systems or components	1			0	6	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					7	
Subtotal	947	434	0	1019	313	0
Total		1381			1332	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories	239	3
12. Reactor I&C Systems	180	2
13. Reactor Auxiliary Systems		38
15. Reactor Cooling Systems		44
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		63
32. Feedwater and Main Steam System	15	42
33. Circulating Water System		3
41. Main Generator Systems		26
42. Electrical Power Supply Systems		40
Total	434	264

US-247 INDIAN POINT-2

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 965.0 MW(e)
Design Net Capacity: 873.0 MW(e)
Design Discharge Burnup: 36000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8847.1 GW(e).h
Energy Availability Factor: 99.7%
Load Factor: 104.6%
Operating Factor: 99.6%
Energy Unavailability Factor: 0.3%
Total Off-line Time: 31 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	765.9	678.7	764.5	738.5	754.9	727.9	741.0	736.1	718.9	760.2	738.7	721.8	8847.1
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.0	99.7
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.0	99.7
LF (%)	106.7	104.7	106.5	106.3	105.1	104.8	103.2	102.5	103.5	105.7	106.3	100.5	104.6
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.0	99.6
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Oct 1966
Date of First Criticality: 22 May 1973
Date of Grid Connection: 26 Jun 1973
Date of Commercial Operation: 15 Aug 1974

Lifetime Generation: 169192.9 GW(e).h
Cumulative Energy Availability Factor: 69.5%
Cumulative Load Factor: 67.6%
Cumulative Unit Capability Factor: 69.6%
Cumulative Energy Unavailability Factor: 30.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	2037.0	873.0	79.8	79.8	79.8	79.8	63.5	63.5	2933	79.9
1975	4646.0	865.0	61.3	66.8	61.3	66.8	61.3	62.0	6545	74.7
1976	2287.1	864.0	30.2	51.7	30.2	51.7	30.1	48.8	3054	34.8
1977	5210.3	864.0	68.9	56.7	68.9	56.7	68.8	54.7	6626	75.6
1978	4372.9	859.0	58.2	57.0	58.2	57.0	58.1	55.4	5503	62.8
1979	4808.4	856.0	64.1	58.3	64.1	58.3	64.1	57.0	6156	70.3
1980	4273.2	856.0	66.8	59.6	63.9	59.2	56.8	57.0	5689	64.8
1981	3065.0	856.0	44.9	57.7	44.9	57.3	40.9	54.8	4027	46.0
1982	4458.6	862.0	65.0	58.5	65.0	58.2	59.0	55.3	5726	65.4
1983	5895.3	859.0	83.5	61.2	83.5	60.9	78.3	57.8	7354	83.9
1984	2891.6	864.0	48.4	59.9	48.4	59.7	38.1	55.9	4552	51.8
1985	6665.0	864.0	95.5	63.0	95.5	62.8	89.0	58.8	8382	95.7
1986	3827.4	864.0	52.6	62.2	52.6	62.0	51.1	58.1	4924	56.2
1987	5149.6	849.0	69.8	62.8	69.8	62.5	68.9	58.9	6331	72.3
1988	6064.0	864.0	81.0	64.0	81.0	63.8	80.6	60.4	7247	82.5
1989	4476.9	864.0	60.4	63.8	60.4	63.6	59.7	60.4	5556	63.4
1990	5222.1	939.0	64.3	63.8	64.3	63.6	67.2	60.8	5779	66.0
1991	3873.4	939.0	51.2	63.0	51.2	62.9	47.6	60.0	4495	51.3
1992	7880.6	951.0	96.7	65.0	96.7	64.9	95.5	62.1	8494	96.7
1993	5931.7	951.0	75.3	65.6	75.3	65.4	72.0	62.6	6570	75.0
1994	7634.6	951.0	100.0	67.4	100.0	67.3	92.6	64.2	8760	100.0
1995	4896.9	951.0	63.6	67.2	63.6	67.1	59.4	64.0	5533	63.2
1996	7831.8	951.0	94.2	68.5	94.2	68.4	94.7	65.4	8261	94.0
1997	3179.7	931.0	41.7	67.3	41.7	67.2	38.8	64.2	3639	41.5
1998	2512.5	951.0	30.9	65.7	30.9	65.6	30.8	62.8	2698	30.8
1999	7300.4	951.0	87.6	66.6	87.6	66.5	88.9	63.9	7665	87.5
2000	1062.3	951.0	12.5	64.5	12.5	64.4	12.9	61.8	1099	12.5
2001	7792.7	951.0	96.2	65.7	96.2	65.6	94.5	63.1	8429	96.2
2002	7556.6	951.0	90.2	66.6	90.2	66.5	91.7	64.1	7931	90.5
2003	8370.8	956.0	98.1	67.7	98.1	67.6	100.3	65.5	8597	98.1
2004	7513.1	956.0	89.3	68.5	89.3	68.4	89.5	66.3	7851	89.4
2005	8847.1	965.0	99.7	69.6	99.7	69.5	104.6	67.6	8730	99.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		29			1057	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	1129					
D. Inspection, maintenance or repair without refuelling	210					
E. Testing of plant systems or components	27					
H. Nuclear regulatory requirements	5				2	
J. Grid failure or grid unavailability						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	92	14				0
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)		1				
Subtotal	0	29	0	1463	1082	6
Total		29			2551	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		55
13. Reactor Auxiliary Systems		9
14. Safety Systems		10
15. Reactor Cooling Systems		68
16. Steam generation systems		87
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		66
32. Feedwater and Main Steam System	29	364
35. All other I&C Systems		2
41. Main Generator Systems		49
42. Electrical Power Supply Systems		248
XX. Miscellaneous Systems		0
Total	29	963

US-286 INDIAN POINT-3

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 985.0 MW(e)
Design Net Capacity: 965.0 MW(e)
Design Discharge Burnup: 14000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8037.2 GW(e).h
Energy Availability Factor: 91.0%
Load Factor: 93.1%
Operating Factor: 91.0%
Energy Unavailability Factor: 9.0%
Total Off-line Time: 791 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	743.1	671.3	258.1	541.1	730.5	707.7	759.1	754.9	721.0	638.1	744.5	767.7	8037.2
EAF (%)	100.0	100.0	35.5	78.1	96.4	97.0	100.0	100.0	100.0	86.4	100.0	100.0	91.0
UCF (%)	100.0	100.0	35.5	78.1	96.4	97.0	100.0	100.0	100.0	86.4	100.0	100.0	91.0
LF (%)	101.4	101.4	35.2	76.3	99.7	99.8	103.6	103.0	101.7	87.1	105.0	104.8	93.1
OF (%)	100.0	100.0	35.5	77.8	96.2	96.9	100.0	100.0	100.0	86.4	100.0	100.0	91.0
EUF (%)	0.0	0.0	64.5	21.9	3.6	3.0	0.0	0.0	0.0	13.6	0.0	0.0	9.0
PUF (%)	0.0	0.0	64.5	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
UCLF (%)	0.0	0.0	0.0	0.0	3.7	3.0	0.0	0.0	0.0	13.6	0.0	0.0	1.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1968
Date of First Criticality: 06 Apr 1976
Date of Grid Connection: 27 Apr 1976
Date of Commercial Operation: 30 Aug 1976

Lifetime Generation: 153363.2 GW(e).h
Cumulative Energy Availability Factor: 65.2%
Cumulative Load Factor: 61.9%
Cumulative Unit Capability Factor: 65.2%
Cumulative Energy Unavailability Factor: 34.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	2257.5	873.0	100.0	100.0	100.0	100.0	70.4	70.4	2871	78.2
1977	5520.8	873.0	72.1	80.3	72.1	80.3	72.2	71.7	6556	74.8
1978	5457.6	911.0	68.3	75.3	68.3	75.3	68.4	70.3	6365	72.7
1979	4794.6	965.0	56.7	69.5	56.7	69.5	56.7	66.1	5824	66.5
1980	3070.4	965.0	53.6	65.7	53.6	65.7	36.2	59.0	4667	53.1
1981	3033.4	965.0	59.4	64.5	59.4	64.5	35.9	54.6	5236	59.8
1982	1436.1	891.0	22.5	58.2	22.5	58.2	18.4	49.2	1967	22.5
1983	60.7	934.0	2.4	50.6	2.4	50.6	0.7	42.6	229	2.6
1984	6041.7	965.0	76.2	53.8	76.2	53.8	71.3	46.1	6703	76.3
1985	4728.5	965.0	65.5	55.1	65.5	55.1	55.9	47.2	5782	66.0
1986	5525.6	930.0	72.9	56.8	72.9	56.8	65.8	49.0	6431	73.4
1987	4850.6	1000.0	60.5	57.2	60.5	57.2	58.3	49.8	5396	61.6
1988	6711.9	965.0	81.9	59.2	81.9	59.2	79.2	52.3	7217	82.2
1989	4968.7	965.0	59.7	59.2	59.7	59.2	58.8	52.8	5279	60.3
1990	5031.8	965.0	60.8	59.4	60.8	59.4	59.5	53.2	5374	61.3
1991	7300.8	965.0	88.8	61.3	88.8	61.3	86.4	55.4	7577	86.5
1992	4760.6	965.0	59.2	61.2	59.2	61.2	56.2	55.5	5248	59.7
1993	1192.6	965.0	13.4	58.4	13.4	58.4	14.1	53.1	1292	14.7
1994	0.0	965.0	0.0	55.2	0.0	55.2	0.0	50.1	0	0.0
1995	1471.5	965.0	18.2	53.2	18.2	53.2	17.4	48.4	1696	19.4
1996	5872.5	965.0	72.4	54.2	72.4	54.2	69.3	49.5	6390	72.7
1997	4337.3	965.0	57.4	54.3	57.4	54.3	51.3	49.5	4650	53.1
1998	7656.5	965.0	93.6	56.1	93.6	56.1	90.6	51.4	8197	93.6
1999	7269.2	965.0	87.4	57.5	87.4	57.5	86.0	52.9	7659	87.4
2000	8432.2	965.0	97.9	59.1	97.9	59.1	99.5	54.8	8600	97.9
2001	7940.2	965.0	92.8	60.5	92.8	60.5	93.9	56.4	8130	92.8
2002	8432.6	979.0	98.3	61.9	98.3	61.9	99.6	58.1	8611	98.3
2003	7608.4	979.0	88.4	62.9	88.4	62.9	88.7	59.2	7748	88.4
2004	8747.3	979.0	100.0	64.3	100.0	64.3	101.7	60.7	8784	100.0
2005	8037.2	985.0	91.0	65.2	91.0	65.2	93.1	61.9	7969	91.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		150			1408	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	638			1181		
D. Inspection, maintenance or repair without refuelling				288	1	
E. Testing of plant systems or components				2	11	
J. Grid failure or grid unavailability					6	0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					14	
P. Fire					0	
Subtotal	638	150	0	1471	1445	0
Total		788			2916	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	101	18
13. Reactor Auxiliary Systems		10
14. Safety Systems		682
15. Reactor Cooling Systems		41
16. Steam generation systems		82
17. Safety I&C Systems (excluding reactor I&C)	27	
31. Turbine and auxiliaries		118
32. Feedwater and Main Steam System		59
33. Circulating Water System		1
41. Main Generator Systems		350
42. Electrical Power Supply Systems		35
XX. Miscellaneous Systems	21	3
Total	149	1399

US-305 KEWAUNEE

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 539.0 MW(e)
Design Net Capacity: 535.0 MW(e)
Design Discharge Burnup: 38900 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3043.1 GW(e).h
Energy Availability Factor: 62.3%
Load Factor: 64.4%
Operating Factor: 62.2%
Energy Unavailability Factor: 37.7%
Total Off-line Time: 3310 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	423.5	260.0	0.0	0.0	0.0	0.0	385.9	416.4	406.9	418.3	316.7	415.4	3043.1
EAF (%)	100.0	67.9	0.0	0.0	0.0	0.0	97.0	100.0	100.0	100.0	80.5	100.0	62.3
UCF (%)	100.0	67.9	0.0	0.0	0.0	0.0	97.0	100.0	100.0	100.0	80.5	100.0	62.3
LF (%)	105.6	71.8	0.0	0.0	0.0	0.0	96.2	103.8	104.8	104.2	81.6	103.6	64.4
OF (%)	100.0	68.5	0.0	0.0	0.0	0.0	96.1	100.0	100.0	100.0	80.4	100.0	62.2
EUF (%)	0.0	32.1	100.0	100.0	100.0	100.0	3.0	0.0	0.0	0.0	19.5	0.0	37.7
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	32.1	100.0	100.0	100.0	100.0	3.0	0.0	0.0	0.0	19.5	0.0	37.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Aug 1968
Date of First Criticality: 07 Mar 1974
Date of Grid Connection: 08 Apr 1974
Date of Commercial Operation: 16 Jun 1974

Lifetime Generation: 117047.0 GW(e).h
Cumulative Energy Availability Factor: 82.5%
Cumulative Load Factor: 82.0%
Cumulative Unit Capability Factor: 82.5%
Cumulative Energy Unavailability Factor: 17.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	1719.7	535.0	76.4	76.4	76.4	76.4	62.6	62.6	3918	76.3
1975	3340.1	535.0	71.3	73.2	71.3	73.2	71.3	68.1	7730	88.2
1976	3382.5	522.0	73.7	73.4	73.7	73.4	73.8	70.2	6924	78.8
1977	3546.6	522.0	77.4	74.5	77.4	74.5	77.6	72.3	6985	79.7
1978	3890.6	519.0	85.6	76.9	85.6	76.9	85.6	75.1	7835	89.4
1979	3439.2	520.0	75.5	76.6	75.5	76.6	75.5	75.2	6921	79.0
1980	3631.2	522.0	82.3	77.5	82.3	77.5	79.2	75.8	7207	82.0
1981	3769.2	516.0	86.6	78.7	86.6	78.7	83.4	76.8	7596	86.7
1982	3824.9	514.0	87.4	79.7	87.4	79.7	84.9	77.7	7669	87.5
1983	3706.9	510.0	83.7	80.1	83.7	80.1	83.0	78.3	7334	83.7
1984	3810.0	503.0	85.3	80.6	85.3	80.6	86.2	79.0	7527	85.7
1985	3699.2	503.0	81.8	80.7	81.8	80.7	84.0	79.4	7213	82.3
1986	3854.7	503.0	85.3	81.0	85.3	81.0	87.5	80.0	7514	85.8
1987	4008.6	503.0	88.8	81.6	88.8	81.6	91.0	80.8	7809	89.1
1988	3914.8	503.0	87.1	82.0	87.1	82.0	88.6	81.3	7679	87.4
1989	3741.8	503.0	83.9	82.1	83.9	82.1	84.9	81.6	7390	84.4
1990	3900.8	503.0	87.2	82.4	87.2	82.4	88.5	82.0	7668	87.5
1991	3674.8	511.0	80.3	82.3	80.3	82.3	82.7	82.0	7247	82.7
1992	3938.1	511.0	87.3	82.5	87.3	82.5	87.7	82.3	7682	87.5
1993	3816.9	511.0	86.0	82.7	86.0	82.7	85.3	82.5	7548	86.2
1994	3961.5	511.0	88.2	83.0	88.2	83.0	88.5	82.8	7738	88.3
1995	3793.4	511.0	87.1	83.2	87.1	83.2	84.7	82.9	7645	87.3
1996	3171.1	511.0	71.3	82.6	71.3	82.6	70.6	82.3	6299	71.7
1997	2363.8	511.0	55.5	81.5	55.5	81.5	52.8	81.1	4866	55.5
1998	3705.4	511.0	86.6	81.7	86.6	81.7	82.8	81.1	7584	86.6
1999	4424.7	511.0	100.0	82.4	100.0	82.4	98.8	81.8	8760	100.0
2000	3799.9	511.0	88.5	82.6	88.5	82.6	84.7	81.9	7760	88.3
2001	3461.7	511.0	80.1	82.5	80.1	82.5	77.3	81.8	7009	80.0
2002	4468.7	511.0	97.3	83.1	97.3	83.1	99.8	82.4	8514	97.2
2003	4159.1	526.0	90.5	83.3	90.5	83.3	91.6	82.7	7893	90.1
2004	3873.9	556.0	80.4	83.2	80.4	83.2	80.4	82.6	7049	80.2
2005	3043.1	539.0	62.3	82.5	62.3	82.5	64.4	82.0	5451	62.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		3307			137	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	1091					
D. Inspection, maintenance or repair without refuelling	74					
E. Testing of plant systems or components	2					
F. Major back-fitting, refurbishment or upgrading activities with refuelling	2					
H. Nuclear regulatory requirements					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	1
Subtotal	0	3307	0	1169	141	1
Total		3307			1311	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems		3
14. Safety Systems	3166	12
15. Reactor Cooling Systems		15
16. Steam generation systems		4
31. Turbine and auxiliaries		29
32. Feedwater and Main Steam System	29	27
33. Circulating Water System		7
35. All other I&C Systems		1
41. Main Generator Systems	111	
42. Electrical Power Supply Systems		18
XX. Miscellaneous Systems		1
Total	3306	130

US-373 LASALLE-1

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 1146.0 MW(e)
Design Net Capacity: 1078.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9812.0 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 97.7%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 1 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	851.9	763.8	850.9	817.6	832.2	802.7	812.0	821.0	785.2	809.8	819.2	845.5	9812.0
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	99.9	99.2	99.8	99.1	97.6	97.3	95.2	96.3	95.2	94.9	99.3	99.2	97.7
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1973
Date of First Criticality: 21 Jun 1982
Date of Grid Connection: 04 Sep 1982
Date of Commercial Operation: 01 Jan 1984

Lifetime Generation: 144094.6 GW(e).h
Cumulative Energy Availability Factor: 72.3%
Cumulative Load Factor: 69.5%
Cumulative Unit Capability Factor: 72.3%
Cumulative Energy Unavailability Factor: 27.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	5206.2	1078.0	69.4	69.4	69.4	69.4	55.0	55.0	6052	68.9
1985	4827.5	1036.0	64.3	66.9	63.7	66.6	53.2	54.1	5581	63.7
1986	2100.8	1036.0	25.8	53.4	25.8	53.2	23.1	43.9	2331	26.6
1987	4108.1	1036.0	61.9	55.5	61.9	55.3	45.3	44.3	5455	62.3
1988	5453.7	1036.0	65.9	57.6	65.9	57.4	59.9	47.4	5818	66.2
1989	6180.6	1036.0	69.7	59.6	69.7	59.5	68.1	50.8	6103	69.7
1990	8637.4	1036.0	95.0	64.6	95.0	64.5	95.2	57.1	8329	95.1
1991	6841.4	1036.0	75.4	65.9	75.4	65.9	75.4	59.4	6627	75.7
1992	6469.3	1036.0	74.0	66.8	74.0	66.8	71.1	60.7	6528	74.3
1993	7207.5	1036.0	81.0	68.2	81.0	68.2	79.4	62.5	7102	81.1
1994	4945.3	1036.0	57.8	67.3	57.8	67.2	54.5	61.8	5095	58.2
1995	8239.6	1036.0	93.9	69.5	93.9	69.5	90.8	64.2	8226	93.9
1996	3300.4	1036.0	37.5	67.0	37.5	67.0	36.3	62.1	3349	38.1
1997	0.0	1036.0	0.0	62.3	0.0	62.2	0.0	57.7	0	0.0
1998	3336.7	1036.0	36.3	60.5	36.3	60.5	36.8	56.3	3174	36.2
1999	8013.7	1036.0	90.8	62.4	90.8	62.4	88.3	58.3	7963	90.9
2000	9745.4	1114.0	100.0	64.7	100.0	64.7	102.8	61.0	8784	100.0
2001	9850.4	1111.0	99.4	66.8	99.4	66.7	101.0	63.3	8708	99.4
2002	8927.6	1111.0	90.6	68.1	90.6	68.1	91.7	64.9	7945	90.7
2003	9739.0	1111.0	99.5	69.8	99.5	69.7	100.1	66.8	8716	99.5
2004	9051.5	1111.0	91.5	70.9	91.5	70.8	92.8	68.1	8059	91.7
2005	9812.0	1146.0	100.0	72.3	100.0	72.3	97.7	69.5	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					513	
B. Refuelling without a maintenance					42	
C. Inspection, maintenance or repair combined with refuelling				1164		
D. Inspection, maintenance or repair without refuelling				487		
E. Testing of plant systems or components				70	1	
H. Nuclear regulatory requirements					233	
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					18	
Subtotal	0	0	0	1721	807	2
Total	0			2530		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		39
12. Reactor I&C Systems		28
13. Reactor Auxiliary Systems		5
14. Safety Systems		52
15. Reactor Cooling Systems		147
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		125
32. Feedwater and Main Steam System		21
33. Circulating Water System		10
35. All other I&C Systems		5
41. Main Generator Systems		16
42. Electrical Power Supply Systems		39
Total	0	489

US-374 LASALLE-2

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1147.0 MW(e)
Design Net Capacity: 1078.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8901.2 GW(e).h
Energy Availability Factor: 89.7%
Load Factor: 88.6%
Operating Factor: 89.7%
Energy Unavailability Factor: 10.3%
Total Off-line Time: 904 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	849.6	159.3	393.4	826.9	850.0	803.7	834.4	835.3	802.6	856.6	832.0	857.4	8901.2
EAF (%)	100.0	21.4	49.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.7
UCF (%)	100.0	21.4	49.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.7
LF (%)	99.6	20.7	46.1	100.1	99.6	97.3	97.8	97.9	97.2	100.2	100.7	100.5	88.6
OF (%)	100.0	21.4	49.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.7
EUF (%)	0.0	78.6	50.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
PUF (%)	0.0	78.6	50.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Oct 1973
Date of First Criticality: 10 Mar 1984
Date of Grid Connection: 20 Apr 1984
Date of Commercial Operation: 19 Oct 1984

Lifetime Generation: 137149.0 GW(e).h
Cumulative Energy Availability Factor: 70.7%
Cumulative Load Factor: 69.1%
Cumulative Unit Capability Factor: 70.7%
Cumulative Energy Unavailability Factor: 29.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	1392.1	1036.0	86.4	86.4	86.4	86.4	75.7	75.7	1536	86.5
1985	3477.0	1036.0	41.8	49.3	41.8	49.3	38.3	44.6	3698	42.2
1986	5727.8	1036.0	75.0	61.0	74.6	60.8	63.1	53.0	6533	74.6
1987	4573.3	1036.0	53.1	58.5	53.1	58.4	50.4	52.2	4699	53.6
1988	5662.8	1036.0	75.1	62.5	75.1	62.4	62.2	54.6	6593	75.1
1989	6506.8	1036.0	75.1	64.9	75.1	64.8	71.7	57.9	6591	75.2
1990	6216.8	1036.0	70.0	65.7	70.0	65.7	68.5	59.6	6162	70.3
1991	8712.4	1036.0	95.3	69.8	95.3	69.8	96.0	64.6	8357	95.4
1992	5797.9	1036.0	66.3	69.4	66.3	69.4	63.7	64.5	5850	66.6
1993	5859.2	1036.0	66.1	69.0	66.1	69.0	64.6	64.5	5825	66.5
1994	8428.9	1036.0	92.4	71.3	92.4	71.3	92.9	67.3	8101	92.5
1995	5905.7	1036.0	66.5	70.9	66.5	70.9	65.1	67.1	5855	66.8
1996	5642.3	1036.0	64.5	70.4	64.5	70.3	62.0	66.7	5649	64.3
1997	0.0	1036.0	0.0	65.1	0.0	65.0	0.0	61.6	0	0.0
1998	0.0	1036.0	0.0	60.5	0.0	60.4	0.0	57.3	0	0.0
1999	6632.3	1036.0	71.1	61.2	71.1	61.1	73.1	58.3	6231	71.1
2000	9040.4	1114.0	93.1	63.2	93.1	63.2	96.0	60.7	8229	93.7
2001	9683.4	1111.0	97.2	65.3	97.2	65.3	99.3	63.1	8515	97.2
2002	8995.6	1111.0	92.1	66.9	92.1	66.9	92.4	64.8	8078	92.2
2003	8709.1	1111.0	88.4	68.1	88.4	68.0	89.5	66.2	7762	88.6
2004	9940.4	1111.0	99.8	69.7	99.8	69.7	101.9	68.1	8764	99.8
2005	8901.2	1147.0	89.7	70.7	89.7	70.7	88.6	69.1	7857	89.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					314	
B. Refuelling without a maintenance					9	
C. Inspection, maintenance or repair combined with refuelling	901			1328		
D. Inspection, maintenance or repair without refuelling				212		
E. Testing of plant systems or components	0			2		
H. Nuclear regulatory requirements					507	
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				54	25	
Subtotal	901	0	0	1596	855	1
Total		901			2452	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		76
12. Reactor I&C Systems		75
15. Reactor Cooling Systems		20
31. Turbine and auxiliaries		34
32. Feedwater and Main Steam System		6
35. All other I&C Systems		14
41. Main Generator Systems		0
42. Electrical Power Supply Systems		29
XX. Miscellaneous Systems		18
Total	0	272

US-352 LIMERICK-1

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1134.0 MW(e)
Design Net Capacity: 1055.0 MW(e)
Design Discharge Burnup: 22200 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9926.9 GW(e).h
Energy Availability Factor: 98.7%
Load Factor: 99.9%
Operating Factor: 98.6%
Energy Unavailability Factor: 1.3%
Total Off-line Time: 119 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	878.0	669.2	873.4	838.0	849.3	817.8	776.6	838.9	816.3	856.5	838.8	874.1	9926.9
EAF (%)	100.0	88.5	100.0	100.0	100.0	100.0	94.8	100.0	100.0	100.0	100.0	100.0	98.7
UCF (%)	100.0	88.5	100.0	100.0	100.0	100.0	94.8	100.0	100.0	100.0	100.0	100.0	98.7
LF (%)	104.1	87.8	103.5	102.6	100.7	100.2	92.1	99.4	100.0	101.4	102.7	103.6	99.9
OF (%)	100.0	88.4	100.0	99.9	100.0	100.0	94.6	100.0	100.0	100.0	100.0	100.0	98.6
EUF (%)	0.0	11.5	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	1.3
PUF (%)	0.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Apr 1970
Date of First Criticality: 22 Dec 1984
Date of Grid Connection: 13 Apr 1985
Date of Commercial Operation: 01 Feb 1986

Lifetime Generation: 162883.2 GW(e).h
Cumulative Energy Availability Factor: 88.5%
Cumulative Load Factor: 84.7%
Cumulative Unit Capability Factor: 88.5%
Cumulative Energy Unavailability Factor: 11.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	6848.9	1055.0	82.8	82.8	82.8	82.8	81.0	81.0	6634	82.8
1987	5341.3	1055.0	67.7	74.9	67.7	74.9	57.8	68.9	5924	67.6
1988	6674.8	1055.0	96.4	82.3	96.4	82.3	72.0	70.0	8470	96.4
1989	5244.3	1055.0	69.4	79.0	69.4	79.0	56.7	66.6	5638	64.4
1990	5633.1	1055.0	65.3	76.2	65.3	76.2	61.0	65.4	5724	65.3
1991	8133.8	1055.0	91.8	78.9	91.8	78.9	88.0	69.3	8043	91.8
1992	6239.6	1055.0	69.6	77.5	69.6	77.5	67.3	69.0	6115	69.6
1993	8745.5	1055.0	98.5	80.2	98.5	80.2	94.6	72.2	8626	98.5
1994	7858.0	1055.0	89.5	81.2	89.5	81.2	85.0	73.7	7840	89.5
1995	8147.5	1055.0	91.1	82.2	91.1	82.2	88.2	75.1	7973	91.0
1996	8141.6	1105.0	88.8	82.8	88.8	82.8	84.5	76.0	7758	88.3
1997	9227.5	1105.0	97.5	84.1	97.5	84.1	95.3	77.7	8534	97.4
1998	7449.1	1134.0	81.6	83.9	81.6	83.9	76.4	77.6	7061	80.6
1999	9744.0	1134.0	98.0	85.0	98.0	85.0	98.1	79.1	8588	98.0
2000	8988.1	1143.0	90.9	85.4	90.9	85.4	89.8	79.9	7982	90.9
2001	10133.1	1143.0	99.7	86.4	99.7	86.4	101.2	81.3	8735	99.7
2002	9286.8	1134.0	94.1	86.8	94.1	86.8	93.5	82.1	8244	94.1
2003	10057.5	1134.0	99.0	87.5	99.0	87.5	101.2	83.2	8672	99.0
2004	9539.1	1134.0	95.0	88.0	95.0	88.0	95.8	83.9	8345	95.0
2005	9926.9	1134.0	98.7	88.5	98.7	88.5	99.9	84.7	8642	98.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		39			179	
C. Inspection, maintenance or repair combined with refuelling				768		
D. Inspection, maintenance or repair without refuelling	77			150	0	
E. Testing of plant systems or components				26	2	
H. Nuclear regulatory requirements				118		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				124	43	
Subtotal	77	39	0	1186	224	0
Total		116			1410	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		5
13. Reactor Auxiliary Systems		10
14. Safety Systems		15
15. Reactor Cooling Systems		39
21. Fuel Handling and Storage Facilities		8
31. Turbine and auxiliaries		53
32. Feedwater and Main Steam System		10
41. Main Generator Systems	39	3
42. Electrical Power Supply Systems		19
XX. Miscellaneous Systems		13
Total	39	175

US-353 LIMERICK-2

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1134.0 MW(e)
Design Net Capacity: 1055.0 MW(e)
Design Discharge Burnup: 22200 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9124.7 GW(e).h
Energy Availability Factor: 92.3%
Load Factor: 91.9%
Operating Factor: 92.3%
Energy Unavailability Factor: 7.7%
Total Off-line Time: 675 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	851.9	703.0	137.9	838.7	849.9	820.5	843.5	843.0	805.2	711.6	841.0	878.5	9124.7
EAF (%)	100.0	96.4	25.6	100.0	100.0	100.0	100.0	100.0	100.0	87.1	100.0	100.0	92.3
UCF (%)	100.0	96.4	25.6	100.0	100.0	100.0	100.0	100.0	100.0	87.1	100.0	100.0	92.3
LF (%)	101.0	92.3	16.4	102.7	100.7	100.5	100.0	99.9	98.6	84.3	103.0	104.1	91.9
OF (%)	100.0	98.5	23.7	99.9	100.0	100.0	100.0	100.0	100.0	87.1	100.0	100.0	92.3
EUF (%)	0.0	3.6	74.4	0.0	0.0	0.0	0.0	0.0	0.0	12.9	0.0	0.0	7.7
PUF (%)	0.0	3.6	74.4	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	7.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Apr 1970
Date of First Criticality: 12 Aug 1989
Date of Grid Connection: 01 Sep 1989
Date of Commercial Operation: 08 Jan 1990

Lifetime Generation: 140095.2 GW(e).h
Cumulative Energy Availability Factor: 92.3%
Cumulative Load Factor: 90.4%
Cumulative Unit Capability Factor: 92.3%
Cumulative Energy Unavailability Factor: 7.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	7232.6	1055.0	81.8	81.8	81.8	81.8	79.8	79.8	7174	83.5
1991	7146.9	1055.0	77.8	79.8	77.8	79.8	77.3	78.5	6919	79.0
1992	8489.2	1055.0	97.4	85.7	97.4	85.7	91.6	82.9	8557	97.4
1993	7468.7	1055.0	82.3	84.9	82.3	84.9	80.8	82.4	7289	83.2
1994	8571.5	1055.0	98.8	87.6	98.8	87.6	92.7	84.5	8657	98.8
1995	8401.4	1115.0	91.2	88.3	91.2	88.3	86.4	84.8	7984	91.1
1996	9001.1	1115.0	95.7	89.4	95.1	89.3	91.9	85.9	8346	95.0
1997	8307.5	1115.0	89.3	89.4	89.3	89.3	85.1	85.8	7840	89.5
1998	9257.9	1115.0	95.3	90.0	95.3	90.0	94.8	86.8	8346	95.3
1999	8561.0	1150.0	88.4	89.9	88.4	89.8	86.1	86.7	7726	88.2
2000	9940.7	1143.0	98.6	90.7	98.6	90.7	98.8	87.9	8661	98.6
2001	9243.4	1143.0	93.9	91.0	93.9	90.9	92.3	88.3	8230	93.9
2002	10009.5	1134.0	99.0	91.6	99.0	91.6	100.8	89.3	8672	99.0
2003	9387.1	1134.0	94.2	91.8	94.2	91.8	94.5	89.6	8252	94.2
2004	9952.0	1134.0	99.4	92.3	99.4	92.3	99.9	90.3	8734	99.4
2005	9124.7	1134.0	92.3	92.3	92.3	92.3	91.9	90.4	8085	92.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		62			139	
B. Refuelling without a maintenance					18	
C. Inspection, maintenance or repair combined with refuelling	430			382		
D. Inspection, maintenance or repair without refuelling	181			69		
E. Testing of plant systems or components				0		
J. Grid failure or grid unavailability						3
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					9	
Subtotal	611	62	0	451	166	3
Total	673			620		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
15. Reactor Cooling Systems		8
17. Safety I&C Systems (excluding reactor I&C)		5
31. Turbine and auxiliaries	62	71
32. Feedwater and Main Steam System		10
35. All other I&C Systems		11
41. Main Generator Systems		13
42. Electrical Power Supply Systems		9
Total	62	127

US-369 MCGUIRE-1

Operator: DUKE (DUKE POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1100.0 MW(e)
Design Net Capacity: 1180.0 MW(e)
Design Discharge Burnup: 40200 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8968.6 GW(e).h
Energy Availability Factor: 90.9%
Load Factor: 93.1%
Operating Factor: 90.9%
Energy Unavailability Factor: 9.1%
Total Off-line Time: 797 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	861.9	777.1	859.0	827.1	850.6	816.0	810.9	827.2	427.6	313.0	796.3	802.1	8968.6
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	53.3	43.6	100.0	94.5	90.9
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	53.3	43.6	100.0	94.5	90.9
LF (%)	105.3	105.1	105.0	104.4	103.9	103.0	99.1	101.1	54.0	38.2	100.5	98.0	93.1
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	54.3	42.7	100.0	94.5	90.9
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	56.4	0.0	5.5	9.1
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	56.4	0.0	0.0	8.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Apr 1971
Date of First Criticality: 08 Aug 1981
Date of Grid Connection: 12 Sep 1981
Date of Commercial Operation: 01 Dec 1981

Lifetime Generation: 178185.4 GW(e).h
Cumulative Energy Availability Factor: 78.7%
Cumulative Load Factor: 74.7%
Cumulative Unit Capability Factor: 79.1%
Cumulative Energy Unavailability Factor: 21.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	19.1	1180.0	10.2	10.2	10.2	10.2	2.2	2.2	45	6.0
1982	4302.3	1180.0	81.6	76.0	81.6	76.0	41.6	38.5	7043	80.4
1983	4650.0	1180.0	57.3	67.0	57.3	67.0	45.0	41.6	4852	55.4
1984	6434.3	1180.0	78.1	70.6	69.3	67.8	62.1	48.3	6011	68.4
1985	6780.1	1180.0	77.1	72.2	77.1	70.1	65.6	52.5	6747	77.0
1986	5181.1	1150.0	56.2	69.1	56.2	67.4	51.4	52.3	4912	56.1
1987	7352.9	1150.0	76.7	70.3	76.7	68.9	73.0	55.6	6713	76.6
1988	7406.4	1129.0	77.0	71.3	77.0	70.0	74.7	58.3	6763	77.0
1989	7807.2	1129.0	84.5	72.9	84.5	71.7	78.9	60.7	7187	82.0
1990	4755.3	1129.0	56.9	71.1	56.9	70.2	48.1	59.4	4718	53.9
1991	6851.1	1129.0	71.4	71.2	71.4	70.3	69.3	60.3	6259	71.4
1992	7485.3	1129.0	77.9	71.8	77.9	71.0	75.5	61.7	6839	77.9
1993	5537.1	1129.0	58.2	70.7	58.2	69.9	56.0	61.2	5095	58.2
1994	6877.3	1129.0	71.9	70.8	71.9	70.1	69.5	61.8	6291	71.8
1995	8860.2	1129.0	91.6	72.2	91.6	71.6	89.6	63.8	8017	91.5
1996	8558.3	1129.0	89.5	73.3	89.5	72.7	86.3	65.3	7858	89.5
1997	7011.3	1129.0	72.7	73.3	72.7	72.7	70.9	65.6	6361	72.6
1998	8822.6	1100.0	90.0	74.3	90.0	73.7	90.0	67.0	7889	90.1
1999	8593.3	1100.0	86.6	74.9	86.6	74.4	89.2	68.2	7584	86.6
2000	9995.0	1100.0	99.5	76.2	99.5	75.7	103.4	70.0	8741	99.5
2001	8684.9	1100.0	88.0	76.7	88.0	76.3	90.1	70.9	7708	88.0
2002	9100.8	1100.0	91.8	77.4	91.8	77.0	94.4	72.0	8042	91.8
2003	9912.5	1100.0	100.0	78.4	100.0	78.0	102.9	73.4	8760	100.0
2004	8238.5	1100.0	83.4	78.6	83.4	78.2	85.3	73.9	7321	83.3
2005	8968.6	1100.0	90.9	79.1	90.9	78.7	93.1	74.7	7963	90.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		40			560	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	754			902		
D. Inspection, maintenance or repair without refuelling				163	42	
E. Testing of plant systems or components	1			22		
H. Nuclear regulatory requirements					10	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				17	5	30
Subtotal	755	40	0	1104	620	30
Total	795			1754		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		8
12. Reactor I&C Systems		18
13. Reactor Auxiliary Systems		25
14. Safety Systems		31
15. Reactor Cooling Systems		85
16. Steam generation systems		93
17. Safety I&C Systems (excluding reactor I&C)	40	
21. Fuel Handling and Storage Facilities		37
31. Turbine and auxiliaries		61
32. Feedwater and Main Steam System		141
41. Main Generator Systems		6
42. Electrical Power Supply Systems		15
XX. Miscellaneous Systems		30
Total	40	550

US-370 MCGUIRE-2

Operator: DUKE (DUKE POWER CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1100.0 MW(e)
 Design Net Capacity: 1180.0 MW(e)
 Design Discharge Burnup: 40600 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8545.6 GW(e).h
 Energy Availability Factor: 86.7%
 Load Factor: 88.7%
 Operating Factor: 86.6%
 Energy Unavailability Factor: 13.3%
 Total Off-line Time: 1172 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	859.2	775.8	11.2	241.8	854.1	820.4	837.6	830.1	803.5	844.6	804.8	862.5	8545.6
EAF (%)	100.0	100.0	1.5	39.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.7
UCF (%)	100.0	100.0	1.5	39.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.7
LF (%)	105.0	105.0	1.4	30.5	104.4	103.6	102.3	101.4	101.4	103.1	101.6	105.4	88.7
OF (%)	100.0	100.0	2.0	38.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.6
EUF (%)	0.0	0.0	98.5	60.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
PUF (%)	0.0	0.0	87.1	37.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
UCLF (%)	0.0	0.0	11.5	23.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Apr 1971 Lifetime Generation: 176055.5 GW(e).h
 Date of First Criticality: 08 May 1983 Cumulative Energy Availability Factor: 83.1%
 Date of Grid Connection: 23 May 1983 Cumulative Load Factor: 81.7%
 Date of Commercial Operation: 01 Mar 1984 Cumulative Unit Capability Factor: 83.1%
 Cumulative Energy Unavailability Factor: 16.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	6557.8	1180.0	83.0	83.0	83.0	83.0	75.7	75.7	6086	82.9
1985	5609.3	1180.0	61.0	71.0	61.0	71.0	54.3	64.0	5171	59.0
1986	6216.6	1150.0	64.5	68.8	64.5	68.8	61.7	63.2	5601	63.9
1987	7577.4	1150.0	80.2	71.7	80.2	71.7	75.2	66.3	6954	79.4
1988	8058.0	1129.0	82.3	73.9	82.3	73.9	81.3	69.3	7229	82.3
1989	7418.3	1129.0	78.4	74.6	78.4	74.6	75.0	70.3	6867	78.4
1990	6496.2	1129.0	69.5	73.9	69.5	73.9	65.7	69.6	5873	67.0
1991	9516.0	1129.0	97.6	76.9	97.6	76.9	96.2	73.0	8548	97.6
1992	6785.0	1129.0	70.0	76.1	70.0	76.1	68.4	72.5	6141	69.9
1993	6821.1	1129.0	72.8	75.8	72.8	75.8	69.0	72.1	6378	72.8
1994	8660.0	1129.0	88.0	76.9	88.0	76.9	87.6	73.5	7708	88.0
1995	9090.0	1129.0	93.0	78.2	93.0	78.2	91.9	75.1	8144	93.0
1996	7265.1	1129.0	74.6	77.9	74.6	77.9	73.3	74.9	6543	74.5
1997	6648.4	1129.0	71.0	77.4	71.0	77.4	67.2	74.4	6214	70.9
1998	9928.3	1100.0	99.5	78.9	99.5	78.9	101.3	76.1	8715	99.5
1999	8596.7	1100.0	90.5	79.6	90.5	79.6	89.2	76.9	7927	90.5
2000	8452.4	1100.0	88.3	80.1	88.3	80.1	87.5	77.6	7757	88.3
2001	9878.0	1100.0	99.3	81.2	99.3	81.2	102.5	78.9	8698	99.3
2002	8913.5	1100.0	90.7	81.7	90.7	81.7	92.5	79.6	7940	90.6
2003	9027.8	1100.0	91.6	82.1	91.6	82.1	93.7	80.3	8024	91.6
2004	9994.0	1100.0	100.0	83.0	100.0	83.0	103.4	81.4	8784	100.0
2005	8545.6	1100.0	86.7	83.1	86.7	83.1	88.7	81.7	7589	86.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		251		1	296	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	916			977		
D. Inspection, maintenance or repair without refuelling				110	0	
E. Testing of plant systems or components	1			0	0	
H. Nuclear regulatory requirements					12	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	5	
Subtotal	917	251	0	1088	316	0
Total	1168			1404		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		23
13. Reactor Auxiliary Systems		24
14. Safety Systems	40	19
15. Reactor Cooling Systems		87
16. Steam generation systems		17
17. Safety I&C Systems (excluding reactor I&C)		3
21. Fuel Handling and Storage Facilities		2
31. Turbine and auxiliaries	85	5
32. Feedwater and Main Steam System	125	46
41. Main Generator Systems		33
42. Electrical Power Supply Systems		9
XX. Miscellaneous Systems		1
Total	250	271

US-336 MILLSTONE-2

Operator: DOMIN (DOMINION VIRGINIA POWER)
Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 866.0 MW(e)
Design Net Capacity: 870.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6843.0 GW(e).h
Energy Availability Factor: 89.2%
Load Factor: 90.2%
Operating Factor: 89.2%
Energy Unavailability Factor: 10.8%
Total Off-line Time: 949 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	658.8	595.1	653.7	160.5	256.3	637.3	656.2	652.5	628.7	655.2	632.0	656.6	6843.0
EAF (%)	100.0	100.0	100.0	26.7	43.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.2
UCF (%)	100.0	100.0	100.0	26.7	43.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.2
LF (%)	102.3	102.3	101.5	25.7	39.8	102.2	101.8	101.3	100.8	101.6	101.4	101.9	90.2
OF (%)	100.0	100.0	100.0	26.5	43.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.2
EUF (%)	0.0	0.0	0.0	73.3	56.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
PUF (%)	0.0	0.0	0.0	73.3	56.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1969
Date of First Criticality: 17 Oct 1975
Date of Grid Connection: 09 Nov 1975
Date of Commercial Operation: 26 Dec 1975

Lifetime Generation: 139534.5 GW(e).h
Cumulative Energy Availability Factor: 63.5%
Cumulative Load Factor: 61.7%
Cumulative Unit Capability Factor: 64.3%
Cumulative Energy Unavailability Factor: 36.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1975	115.7	745.0	100.0	100.0	100.0	100.0	20.9	20.9	414	55.6
1976	4543.2	780.0	66.4	68.9	66.4	68.9	66.3	62.9	6815	77.6
1977	4345.7	790.0	62.9	66.0	62.9	66.0	62.8	62.9	5756	65.7
1978	4507.2	802.0	64.1	65.4	64.1	65.4	64.2	63.3	5756	65.7
1979	4370.9	837.0	59.6	63.9	59.6	63.9	59.6	62.3	5385	61.5
1980	4884.3	864.0	80.8	67.4	68.2	64.8	64.4	62.8	5947	67.7
1981	6091.7	864.0	82.7	70.1	82.7	67.9	80.5	65.8	7229	82.5
1982	5015.6	864.0	70.5	70.1	70.5	68.3	66.3	65.9	6183	70.6
1983	2474.4	861.0	34.1	65.5	34.1	63.9	32.8	61.7	2993	34.2
1984	6608.3	860.0	93.4	68.7	93.4	67.2	87.5	64.6	8209	93.5
1985	3515.6	857.0	59.4	67.8	47.7	65.3	47.7	62.9	4322	49.3
1986	5164.9	857.0	72.5	68.2	72.5	66.0	68.8	63.5	6352	72.5
1987	6892.5	857.0	93.3	70.3	93.3	68.3	91.8	65.8	8177	93.3
1988	5735.9	863.0	77.2	70.9	77.2	69.0	75.9	66.6	6810	77.5
1989	4763.6	863.0	66.9	70.6	66.9	68.8	63.0	66.4	5705	65.1
1990	5309.9	863.0	72.8	70.7	72.8	69.1	70.2	66.6	6389	72.9
1991	3948.1	863.0	55.3	69.7	55.3	68.2	52.2	65.7	4820	55.0
1992	2725.0	873.0	36.1	67.7	36.1	66.3	35.6	63.9	3187	36.3
1993	6295.9	873.0	84.8	68.7	84.8	67.3	82.3	64.9	7431	84.8
1994	3676.5	873.0	49.0	67.6	49.0	66.3	48.1	64.0	4289	49.0
1995	2740.5	873.0	37.4	66.1	37.4	64.9	35.8	62.6	3273	37.4
1996	1046.5	871.0	13.7	63.5	13.7	62.4	13.7	60.2	1222	13.9
1997	0.0	871.0	0.0	60.6	0.0	59.5	0.0	57.4	0	0.0
1998	0.0	871.0	0.0	57.9	0.0	56.9	0.0	54.9	0	0.0
1999	4433.2	870.0	60.6	58.0	60.6	57.0	58.2	55.0	5310	60.6
2000	6268.5	873.0	83.7	59.1	83.7	58.1	81.8	56.1	7353	83.7
2001	7284.0	869.0	98.0	60.6	98.0	59.7	95.4	57.7	8587	98.0
2002	6209.3	871.0	83.2	61.4	83.2	60.6	81.5	58.6	7285	83.2
2003	6109.8	866.0	80.9	62.1	80.9	61.3	80.2	59.3	7083	80.9
2004	7596.0	877.0	98.8	63.4	98.8	62.6	98.7	60.7	8677	98.8
2005	6843.0	866.0	89.2	64.3	89.2	63.5	90.2	61.7	7812	89.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					586	
B. Refuelling without a maintenance					30	
C. Inspection, maintenance or repair combined with refuelling	944			1320		
D. Inspection, maintenance or repair without refuelling				52		
E. Testing of plant systems or components	3			10	235	
H. Nuclear regulatory requirements					666	35
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				27	7	34
Subtotal	947	0	0	1409	1524	69
Total	947			3002		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		50
13. Reactor Auxiliary Systems		14
14. Safety Systems		12
15. Reactor Cooling Systems		135
16. Steam generation systems		103
31. Turbine and auxiliaries		76
32. Feedwater and Main Steam System		104
33. Circulating Water System		5
35. All other I&C Systems		1
41. Main Generator Systems		2
42. Electrical Power Supply Systems		63
XX. Miscellaneous Systems		0
Total	0	566

US-423 MILLSTONE-3

Operator: DOMIN (DOMINION VIRGINIA POWER)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1131.0 MW(e)
 Design Net Capacity: 1159.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8767.0 GW(e).h
 Energy Availability Factor: 87.6%
 Load Factor: 88.5%
 Operating Factor: 87.6%
 Energy Unavailability Factor: 12.4%
 Total Off-line Time: 1083 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	862.8	779.6	862.9	456.2	844.9	830.6	854.1	849.1	780.8	66.3	831.0	748.7	8767.0
EAF (%)	100.0	100.0	100.0	56.0	100.0	100.0	100.0	100.0	95.2	12.1	100.0	89.7	87.6
UCF (%)	100.0	100.0	100.0	56.0	100.0	100.0	100.0	100.0	100.0	12.1	100.0	89.7	88.0
LF (%)	102.5	102.6	102.5	56.0	100.4	102.0	101.5	100.9	95.9	7.9	102.0	89.0	88.5
OF (%)	100.0	100.0	100.0	55.8	100.0	100.0	100.0	100.0	95.1	12.2	100.0	89.7	87.6
EUF (%)	0.0	0.0	0.0	44.0	0.0	0.0	0.0	0.0	4.8	87.9	0.0	10.3	12.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86.5	0.0	0.0	7.3
UCLF (%)	0.0	0.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	10.3	4.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1974 Lifetime Generation: 137946.0 GW(e).h
 Date of First Criticality: 23 Jan 1986 Cumulative Energy Availability Factor: 72.0%
 Date of Grid Connection: 12 Feb 1986 Cumulative Load Factor: 69.7%
 Date of Commercial Operation: 23 Apr 1986 Cumulative Unit Capability Factor: 72.0%
 Cumulative Energy Unavailability Factor: 28.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986			Data not provided							
1987	6748.2	1142.0	71.4	71.4	71.4	71.4	67.5	67.5	6235	71.2
1988	7683.6	1142.0	79.5	75.4	79.5	75.4	76.6	72.0	6954	79.2
1989	7082.6	1142.0	75.9	75.6	75.9	75.6	70.8	71.6	6636	75.8
1990	8218.2	1137.0	89.2	79.0	89.2	79.0	82.5	74.3	7798	89.0
1991	2876.7	1137.0	33.6	69.9	33.6	69.9	28.9	65.3	2850	32.5
1992	6593.8	1137.0	72.1	70.3	72.1	70.3	66.0	65.4	6311	71.8
1993	6502.8	1137.0	70.1	70.3	70.1	70.3	65.3	65.4	6106	69.7
1994	9416.2	1137.0	96.3	73.5	96.3	73.5	94.5	69.0	8426	96.2
1995	7993.6	1137.0	81.2	74.4	81.2	74.4	80.3	70.3	7083	80.9
1996	2476.7	1137.0	25.7	69.5	25.7	69.5	24.8	65.7	2156	24.5
1997	0.0	1137.0	0.0	63.2	0.0	63.2	0.0	59.8	0	0.0
1998	3392.1	1137.0	38.9	61.2	38.9	61.2	34.1	57.6	3402	38.8
1999	8307.5	1140.0	83.7	62.9	83.7	62.9	83.2	59.6	7329	83.7
2000	10125.7	1154.0	100.0	65.6	100.0	65.6	100.1	62.5	8784	100.0
2001	8169.7	1136.0	84.3	66.8	84.3	66.8	81.3	63.8	7392	84.4
2002	8746.2	1130.0	89.0	68.2	89.0	68.2	88.1	65.3	7803	89.1
2003	10005.7	1130.0	99.6	70.0	99.6	70.0	101.1	67.4	8729	99.6
2004	8983.7	1148.0	90.1	71.2	90.1	71.2	89.9	68.6	7905	90.0
2005	8767.0	1131.0	88.0	72.0	87.6	72.0	88.5	69.7	7677	87.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		393			654	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	642			720		
D. Inspection, maintenance or repair without refuelling				81		
E. Testing of plant systems or components	1			3		
H. Nuclear regulatory requirements					461	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					484	
L. Human factor related		10				
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			34			
Subtotal	643	403	34	804	1607	0
Total	1080			2411		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	316	5
13. Reactor Auxiliary Systems		26
14. Safety Systems		237
15. Reactor Cooling Systems		47
17. Safety I&C Systems (excluding reactor I&C)		12
31. Turbine and auxiliaries	76	13
32. Feedwater and Main Steam System		24
33. Circulating Water System		6
41. Main Generator Systems		12
42. Electrical Power Supply Systems		7
XX. Miscellaneous Systems		201
Total	392	590

US-263 MONTICELLO

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 569.0 MW(e)
Design Net Capacity: 545.0 MW(e)
Design Discharge Burnup: 27000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4474.9 GW(e).h
Energy Availability Factor: 89.4%
Load Factor: 89.8%
Operating Factor: 89.3%
Energy Unavailability Factor: 10.6%
Total Off-line Time: 935 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	436.2	363.3	42.7	228.5	436.0	413.0	420.6	421.4	414.4	437.1	423.3	438.3	4474.9
EAF (%)	100.0	100.0	12.9	60.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.4
UCF (%)	100.0	100.0	12.9	60.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.4
LF (%)	103.0	95.0	10.1	55.8	103.0	100.8	99.4	99.6	101.1	103.1	103.3	103.5	89.8
OF (%)	100.0	100.0	12.9	60.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.3
EUF (%)	0.0	0.0	87.1	39.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6
PUF (%)	0.0	0.0	87.1	39.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Jun 1967	Lifetime Generation:	130756.6 GW(e).h
Date of First Criticality:	10 Dec 1970	Cumulative Energy Availability Factor:	83.9%
Date of Grid Connection:	05 Mar 1971	Cumulative Load Factor:	78.7%
Date of Commercial Operation:	30 Jun 1971	Cumulative Unit Capability Factor:	83.9%
		Cumulative Energy Unavailability Factor:	16.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971	1361.1	568.0	100.0	100.0	100.0	100.0	46.7	46.7	2850	55.5
1972	3717.9	580.0	100.0	100.0	100.0	100.0	73.0	63.4	6975	79.4
1973	3271.6	580.0	100.0	100.0	100.0	100.0	64.4	63.8	6242	71.3
1974	2925.2	538.0	75.0	93.4	75.0	93.4	62.1	63.3	6567	75.0
1975	2881.4	538.0	61.0	86.6	61.0	86.6	61.1	62.9	6322	72.2
1976	3986.2	537.0	84.3	86.2	84.3	86.2	84.5	66.6	8033	91.5
1977	3570.7	536.0	75.9	84.7	75.9	84.7	76.0	68.0	7001	79.9
1978	3856.2	536.0	81.7	84.3	81.7	84.3	82.1	69.8	7638	87.2
1979	4399.7	536.0	93.4	85.4	93.4	85.4	93.7	72.5	8549	97.6
1980	3455.5	536.0	79.0	84.7	78.2	84.6	73.4	72.6	6876	78.3
1981	3262.3	536.0	72.3	83.6	72.3	83.5	69.5	72.3	6362	72.6
1982	2425.1	525.0	62.2	81.8	62.2	81.7	52.7	70.7	5543	63.3
1983	4147.7	525.0	96.3	82.9	96.3	82.8	90.2	72.2	8438	96.3
1984	279.1	525.0	9.2	77.6	9.2	77.6	6.1	67.5	808	9.2
1985	4287.0	536.0	91.6	78.6	91.6	78.5	91.3	69.1	8028	91.6
1986	3379.9	536.0	78.8	78.6	78.8	78.5	72.0	69.3	6926	79.1
1987	3535.6	536.0	80.2	78.7	80.2	78.6	75.3	69.6	7051	80.5
1988	4573.6	536.0	99.7	79.9	99.7	79.8	97.1	71.2	8759	99.7
1989	2650.4	536.0	74.7	79.6	74.7	79.6	56.4	70.4	6578	75.1
1990	4505.9	536.0	96.0	80.4	96.0	80.4	96.0	71.7	8414	96.1
1991	3596.5	536.0	79.6	80.4	79.6	80.4	76.6	71.9	6996	79.9
1992	4453.7	536.0	97.0	81.2	97.0	81.1	94.6	73.0	8527	97.1
1993	3864.4	536.0	83.4	81.3	83.4	81.2	82.3	73.4	7322	83.6
1994	3956.2	536.0	85.6	81.4	85.6	81.4	84.3	73.8	7508	85.7
1995	4756.3	536.0	100.0	82.2	100.0	82.2	101.3	75.0	8760	100.0
1996	3872.9	544.0	84.8	82.3	84.8	82.3	81.4	75.2	7443	84.7
1997	3661.6	544.0	75.2	82.0	75.2	82.0	76.8	75.3	6609	75.4
1998	4118.9	578.0	87.7	82.2	87.7	82.2	84.9	75.6	7659	87.4
1999	4649.3	578.0	92.4	82.6	92.4	82.6	91.8	76.2	8092	92.4
2000	4251.4	578.0	83.5	82.6	83.5	82.6	83.7	76.5	7332	83.5
2001	3880.6	578.0	76.9	82.4	76.9	82.4	76.6	76.5	6774	77.3
2002	5015.6	578.0	98.4	83.0	98.4	83.0	99.1	77.3	8620	98.4
2003	4592.5	578.0	90.7	83.2	90.7	83.2	90.7	77.7	7969	91.0
2004	5034.9	578.0	98.9	83.7	98.9	83.7	99.2	78.4	8689	98.9
2005	4474.9	569.0	89.4	83.9	89.4	83.9	89.8	78.7	7826	89.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					236	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	933			984		
D. Inspection, maintenance or repair without refuelling				123		
E. Testing of plant systems or components				0	1	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				0	2	
H. Nuclear regulatory requirements						9
J. Grid failure or grid unavailability					0	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				1	94	
Subtotal	933	0	0	1108	339	9
Total	933			1456		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		11
12. Reactor I&C Systems		16
13. Reactor Auxiliary Systems		10
14. Safety Systems		18
15. Reactor Cooling Systems		25
16. Steam generation systems		3
17. Safety I&C Systems (excluding reactor I&C)		3
31. Turbine and auxiliaries		25
32. Feedwater and Main Steam System		55
33. Circulating Water System		0
35. All other I&C Systems		6
41. Main Generator Systems		14
42. Electrical Power Supply Systems		21
XX. Miscellaneous Systems		22
Total	0	229

US-220 NINE MILE POINT-1

Operator: CONST (CONSTELLATION NUCLEAR GROUP)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 621.0 MW(e)
Design Net Capacity: 620.0 MW(e)
Design Discharge Burnup: 26000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4589.8 GW(e).h
Energy Availability Factor: 87.5%
Load Factor: 84.4%
Operating Factor: 87.5%
Energy Unavailability Factor: 12.5%
Total Off-line Time: 1094 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	459.9	415.4	257.0	2.7	390.1	421.6	430.7	404.1	431.1	460.0	450.4	466.9	4589.8
EAF (%)	100.0	100.0	57.1	3.5	95.0	100.0	100.0	94.6	100.0	100.0	100.0	100.0	87.5
UCF (%)	100.0	100.0	57.1	3.5	95.0	100.0	100.0	94.7	100.0	100.0	100.0	100.0	87.5
LF (%)	99.5	99.5	55.6	0.6	84.4	94.3	93.2	87.5	96.4	99.4	100.7	101.1	84.4
OF (%)	100.0	100.0	57.1	3.2	94.9	100.0	100.0	94.6	100.0	100.0	100.0	100.0	87.5
EUF (%)	0.0	0.0	42.9	96.5	5.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	12.5
PUF (%)	0.0	0.0	35.5	96.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
UCLF (%)	0.0	0.0	7.4	0.0	2.9	0.0	0.0	5.4	0.0	0.0	0.0	0.0	1.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Apr 1965	Lifetime Generation:	125672.6 GW(e).h
Date of First Criticality:	05 Sep 1969	Cumulative Energy Availability Factor:	72.1%
Date of Grid Connection:	09 Nov 1969	Cumulative Load Factor:	66.8%
Date of Commercial Operation:	01 Dec 1969	Cumulative Unit Capability Factor:	72.1%
		Cumulative Energy Unavailability Factor:	27.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1969	0.0	617.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	1581.0	525.0	100.0	100.0	100.0	100.0	34.4	31.3	3443	39.3
1971	3033.1	592.0	100.0	100.0	100.0	100.0	58.5	45.0	5963	68.1
1972	3344.8	630.0	100.0	100.0	100.0	100.0	60.4	50.4	6101	69.5
1973	3494.2	610.0	76.4	94.0	76.4	94.0	65.4	54.2	6682	76.3
1974	3278.7	610.0	70.5	89.3	70.5	89.3	61.4	55.7	6177	70.5
1975	3044.9	610.0	57.0	83.9	57.0	83.9	57.0	55.9	6235	71.2
1976	4112.8	610.0	76.8	82.8	76.8	82.8	76.8	58.9	7724	87.9
1977	2956.8	610.0	55.4	79.4	55.4	79.4	55.3	58.4	5171	59.0
1978	4467.4	610.0	83.6	79.9	83.6	79.9	83.6	61.3	8329	95.1
1979	3005.4	610.0	56.2	77.5	56.2	77.5	56.2	60.8	5785	66.0
1980	4537.3	610.0	92.2	78.8	92.2	78.8	84.7	62.9	8097	92.2
1981	3270.3	610.0	65.6	77.7	65.6	77.7	61.2	62.8	5780	66.0
1982	1134.8	610.0	21.5	73.4	21.5	73.4	21.2	59.6	1872	21.4
1983	2802.0	610.0	56.2	72.2	56.2	72.2	52.4	59.1	4925	56.2
1984	3635.2	610.0	71.6	72.1	71.6	72.1	67.8	59.7	6316	71.9
1985	4932.3	610.0	96.4	73.6	96.4	73.6	92.3	61.7	8441	96.4
1986	3146.9	610.0	64.9	73.1	64.9	73.1	58.9	61.5	5722	65.3
1987	4615.2	610.0	92.8	74.2	92.8	74.2	86.4	62.9	8130	92.8
1988	0.0	610.0	0.0	70.3	0.0	70.3	0.0	59.6	0	0.0
1989	0.0	610.0	0.0	66.8	0.0	66.8	0.0	56.6	0	0.0
1990	1316.7	615.0	34.2	65.2	34.2	65.2	24.6	55.1	3043	34.7
1991	3873.5	615.0	78.2	65.8	78.2	65.8	71.9	55.9	6853	78.2
1992	2930.1	615.0	57.4	65.4	57.4	65.4	54.2	55.8	5052	57.5
1993	4353.4	615.0	84.1	66.2	84.1	66.2	80.8	56.8	7370	84.1
1994	4918.0	565.0	95.4	67.3	95.4	67.3	99.4	58.4	8390	95.8
1995	4127.6	565.0	82.9	67.9	82.9	67.9	83.4	59.3	7381	84.3
1996	4676.2	565.0	92.0	68.7	92.0	68.7	94.2	60.5	8133	92.6
1997	2698.6	565.0	51.8	68.1	51.8	68.1	54.5	60.3	4620	52.7
1998	4846.0	565.0	92.3	68.9	92.3	68.9	97.9	61.5	8085	92.3
1999	3564.9	565.0	68.4	68.9	68.4	68.9	72.0	61.9	6162	70.3
2000	4681.8	565.0	91.0	69.6	91.0	69.6	94.3	62.9	8060	91.8
2001	4378.0	565.0	83.5	70.0	83.5	70.0	88.5	63.6	7376	84.2
2002	4904.6	565.0	92.9	70.6	92.9	70.6	99.1	64.6	8194	93.5
2003	4361.4	565.0	83.6	71.0	83.6	71.0	88.1	65.3	7373	84.2
2004	4988.2	565.0	93.5	71.6	93.5	71.6	100.5	66.2	8258	94.0
2005	4589.8	621.0	87.5	72.1	87.5	72.1	84.4	66.8	7667	87.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		116		0	778	
B. Refuelling without a maintenance					32	
C. Inspection, maintenance or repair combined with refuelling	927			1312		
D. Inspection, maintenance or repair without refuelling	43			153		
E. Testing of plant systems or components	3			3	0	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				2		
H. Nuclear regulatory requirements				1	4	6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				5	153	
Subtotal	973	116	0	1476	967	6
Total		1089			2449	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		13
12. Reactor I&C Systems	39	36
13. Reactor Auxiliary Systems		29
14. Safety Systems		63
15. Reactor Cooling Systems		356
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries	54	45
32. Feedwater and Main Steam System		59
35. All other I&C Systems		3
41. Main Generator Systems	21	18
42. Electrical Power Supply Systems		32
Total	114	656

US-410 NINE MILE POINT-2

Operator: CONST (CONSTELLATION NUCLEAR GROUP)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1135.0 MW(e)
Design Net Capacity: 1100.0 MW(e)
Design Discharge Burnup: 32300 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9961.0 GW(e).h
Energy Availability Factor: 100.0%
Load Factor: 100.2%
Operating Factor: 100.0%
Energy Unavailability Factor: 0.0%
Total Off-line Time: 1 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	858.9	775.1	847.4	826.7	825.8	813.9	838.3	838.3	809.0	850.9	825.3	851.3	9961.0
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	101.7	101.6	100.4	101.2	97.8	99.6	99.3	99.3	99.0	100.6	101.0	100.8	100.2
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Aug 1975
Date of First Criticality: 23 May 1987
Date of Grid Connection: 08 Aug 1987
Date of Commercial Operation: 11 Mar 1988

Lifetime Generation: 132593.1 GW(e).h
Cumulative Energy Availability Factor: 81.0%
Cumulative Load Factor: 77.7%
Cumulative Unit Capability Factor: 81.0%
Cumulative Energy Unavailability Factor: 19.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	2540.6	1045.0	49.1	49.1	49.1	49.1	33.6	33.6	2800	38.6
1989	4288.3	1072.0	56.4	53.2	56.4	53.2	45.8	40.4	4824	55.1
1990	4140.4	1090.0	54.4	53.6	54.4	53.6	43.7	41.5	4697	53.6
1991	6562.9	1097.0	75.1	59.3	75.1	59.3	68.6	48.7	6484	74.0
1992	5145.0	1062.0	61.8	59.9	61.8	59.9	54.5	49.9	5169	58.8
1993	7191.1	994.0	82.2	63.6	82.2	63.6	78.3	54.7	7195	82.1
1994	8355.9	994.0	93.9	67.8	93.9	67.8	96.0	60.4	8243	94.1
1995	7253.7	1108.0	78.9	69.2	78.9	69.2	78.0	62.6	6848	78.2
1996	8698.5	1105.0	89.7	71.6	89.7	71.6	89.5	65.8	7811	88.9
1997	8878.0	1105.0	94.9	74.1	94.9	74.1	91.7	68.5	8279	94.5
1998	7307.2	1105.0	80.8	74.7	80.8	74.7	75.5	69.2	7028	80.2
1999	8782.3	1123.0	89.1	76.0	89.1	76.0	88.9	70.9	7810	89.2
2000	8001.5	1123.0	81.7	76.5	81.7	76.5	81.1	71.8	7204	82.0
2001	8858.8	1119.0	90.7	77.5	90.7	77.5	90.4	73.1	7964	90.9
2002	8417.5	1119.0	85.1	78.1	85.1	78.1	85.9	74.0	7473	85.3
2003	9566.9	1119.0	96.4	79.2	96.4	79.2	97.6	75.6	8448	96.4
2004	8643.5	1119.0	88.5	79.8	88.5	79.8	87.9	76.3	7788	88.7
2005	9961.0	1135.0	100.0	81.0	100.0	81.0	100.2	77.7	8760	100.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					467	
B. Refuelling without a maintenance					23	
C. Inspection, maintenance or repair combined with refuelling				784		
D. Inspection, maintenance or repair without refuelling				359	2	
E. Testing of plant systems or components				3		
J. Grid failure or grid unavailability					4	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					53	
Subtotal	0	0	0	1146	549	0
Total	0			1695		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		0
14. Safety Systems		13
15. Reactor Cooling Systems		74
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		37
32. Feedwater and Main Steam System		70
33. Circulating Water System		18
35. All other I&C Systems		60
41. Main Generator Systems		39
42. Electrical Power Supply Systems		79
Total	0	394

US-338 NORTH ANNA-1

Operator: DOMIN (DOMINION VIRGINIA POWER)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 925.0 MW(e)
Design Net Capacity: 907.0 MW(e)
Design Discharge Burnup: 39000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8091.9 GW(e).h
Energy Availability Factor: 99.8%
Load Factor: 99.9%
Operating Factor: 99.8%
Energy Unavailability Factor: 0.2%
Total Off-line Time: 17 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	695.0	627.5	695.2	671.0	693.7	666.4	684.8	656.9	652.8	687.6	669.1	691.9	8091.9
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.9	100.0	100.0	100.0	100.0	99.8
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.9	100.0	100.0	100.0	100.0	99.8
LF (%)	101.0	100.9	101.0	100.7	100.8	100.1	99.5	95.5	98.0	99.8	100.5	100.5	99.9
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	97.8	100.0	100.0	100.0	100.0	99.8
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Feb 1971
Date of First Criticality: 05 Apr 1978
Date of Grid Connection: 17 Apr 1978
Date of Commercial Operation: 06 Jun 1978

Lifetime Generation: 169319.3 GW(e).h
Cumulative Energy Availability Factor: 80.7%
Cumulative Load Factor: 77.8%
Cumulative Unit Capability Factor: 80.7%
Cumulative Energy Unavailability Factor: 19.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1978	3664.5	898.0	81.4	81.4	81.4	81.4	79.5	79.5	4769	92.9
1979	4188.7	898.0	53.2	63.7	53.2	63.7	53.2	62.9	5399	61.6
1980	5631.0	878.0	87.2	72.7	87.2	72.7	73.0	66.8	7589	86.4
1981	4637.9	860.0	65.6	70.7	65.6	70.7	61.6	65.4	5703	65.1
1982	2397.9	865.0	34.7	63.0	34.7	63.0	31.6	58.1	3027	34.6
1983	5310.4	872.0	71.6	64.5	71.6	64.5	69.5	60.2	6277	71.7
1984	3784.8	883.0	50.3	62.4	50.3	62.4	48.8	58.4	4425	50.4
1985	5798.9	893.0	77.9	64.4	77.9	64.4	74.2	60.5	6820	77.9
1986	6310.7	893.0	83.7	66.7	83.7	66.7	80.7	62.9	7327	83.6
1987	3568.9	915.0	52.1	65.1	52.1	65.1	44.6	60.9	4523	51.6
1988	6897.3	915.0	88.6	67.4	88.6	67.4	85.8	63.4	7760	88.3
1989	4303.3	915.0	57.8	66.6	57.8	66.6	53.7	62.5	4978	56.8
1990	7233.5	911.0	99.6	69.3	99.6	69.3	90.5	64.8	8726	99.6
1991	5625.8	911.0	75.2	69.7	75.2	69.7	70.5	65.2	6549	74.8
1992	5358.1	848.0	81.5	70.5	81.5	70.5	71.1	65.6	7225	82.3
1993	5692.6	911.0	73.5	70.7	73.5	70.7	73.0	66.1	6444	73.6
1994	6795.7	900.0	91.6	71.9	91.6	71.9	86.2	67.3	8012	91.5
1995	7839.2	893.0	99.7	73.5	99.7	73.5	99.8	69.2	8733	99.7
1996	6945.5	893.0	91.0	74.5	91.0	74.5	88.5	70.2	7985	90.9
1997	7157.5	893.0	91.3	75.3	91.3	75.3	91.5	71.3	7992	91.2
1998	7217.1	893.0	92.4	76.2	92.4	76.2	92.3	72.3	8091	92.4
1999	8124.5	893.0	100.0	77.3	100.0	77.3	103.9	73.8	8760	100.0
2000	7213.1	893.0	91.1	77.9	91.1	77.9	92.0	74.6	7997	91.0
2001	7120.8	925.0	91.5	78.5	91.5	78.5	87.9	75.2	8010	91.4
2002	8164.3	925.0	100.0	79.4	100.0	79.4	100.8	76.2	8760	100.0
2003	6519.9	925.0	82.2	79.5	82.2	79.5	80.5	76.4	7200	82.2
2004	7418.4	925.0	91.4	80.0	91.4	80.0	91.3	77.0	8023	91.3
2005	8091.9	925.0	99.8	80.7	99.8	80.7	99.9	77.8	8744	99.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1978 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		15			448	
B. Refuelling without a maintenance					5	
C. Inspection, maintenance or repair combined with refuelling	1050					
D. Inspection, maintenance or repair without refuelling	124					
E. Testing of plant systems or components	11	3				
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	0	2				
Subtotal	0	15	0	1185	458	0
Total		15			1643	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1978 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		16
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		9
14. Safety Systems		21
15. Reactor Cooling Systems		51
16. Steam generation systems		126
31. Turbine and auxiliaries		60
32. Feedwater and Main Steam System		18
33. Circulating Water System		4
41. Main Generator Systems	15	10
42. Electrical Power Supply Systems		99
Total	15	417

US-339 NORTH ANNA-2

Operator: DOMIN (DOMINION VIRGINIA POWER)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 917.0 MW(e)
Design Net Capacity: 907.0 MW(e)
Design Discharge Burnup: 39000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7293.5 GW(e).h
Energy Availability Factor: 91.7%
Load Factor: 90.8%
Operating Factor: 91.7%
Energy Unavailability Factor: 8.3%
Total Off-line Time: 726 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	683.7	617.8	684.0	660.8	682.5	652.5	673.3	627.5	653.0	27.2	651.4	679.9	7293.5
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.1	100.0	7.4	100.0	100.0	91.7
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	7.4	100.0	100.0	92.1
LF (%)	100.2	100.3	100.3	100.1	100.0	98.8	98.7	92.0	98.9	4.0	98.7	99.7	90.8
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	95.0	100.0	7.5	100.0	100.0	91.7
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	92.6	0.0	0.0	8.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.6	0.0	0.0	7.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1970
Date of First Criticality: 12 Jun 1980
Date of Grid Connection: 25 Aug 1980
Date of Commercial Operation: 14 Dec 1980

Lifetime Generation: 162980.9 GW(e).h
Cumulative Energy Availability Factor: 84.8%
Cumulative Load Factor: 81.9%
Cumulative Unit Capability Factor: 84.9%
Cumulative Energy Unavailability Factor: 15.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1980	349.6	898.0	97.5	97.5	97.5	97.5	90.1	90.1	412	95.4
1981	5652.7	883.0	78.4	79.3	78.4	79.3	73.1	73.9	6813	77.8
1982	4047.2	890.0	57.3	68.5	57.3	68.5	51.9	63.1	4990	57.0
1983	5802.5	890.0	80.7	72.5	80.7	72.5	74.4	66.8	7052	80.5
1984	4717.2	890.0	67.1	71.2	67.1	71.2	60.3	65.2	5896	67.1
1985	6813.6	893.0	94.2	75.8	94.2	75.8	87.2	69.6	8252	94.2
1986	6022.1	893.0	82.2	76.9	82.2	76.9	77.0	70.8	7208	82.3
1987	5653.4	915.0	77.4	76.9	77.4	76.9	71.2	70.9	6783	77.4
1988	7884.0	915.0	99.2	79.8	99.2	79.8	98.1	74.3	8708	99.1
1989	5896.5	915.0	80.2	79.8	80.2	79.8	73.6	74.3	6887	78.6
1990	5976.6	909.0	80.0	79.8	80.0	79.8	74.9	74.3	6982	79.7
1991	7684.3	909.0	97.5	81.4	97.5	81.4	96.5	76.3	8539	97.5
1992	6324.7	909.0	82.6	81.5	82.6	81.5	79.2	76.6	7237	82.4
1993	6225.2	909.0	83.6	81.7	83.6	81.7	78.2	76.7	7303	83.4
1994	7490.3	887.0	97.2	82.8	97.2	82.8	96.4	78.1	8517	97.2
1995	6031.7	897.0	80.8	82.7	80.8	82.7	77.2	78.0	7086	80.9
1996	6121.5	897.0	78.1	82.4	78.1	82.4	77.7	78.0	6859	78.1
1997	7834.8	897.0	99.7	83.4	99.7	83.4	99.7	79.3	8738	99.7
1998	7086.1	897.0	92.1	83.9	91.9	83.9	90.2	79.9	8049	91.9
1999	7185.1	897.0	91.7	84.3	91.7	84.3	91.4	80.5	8034	91.7
2000	8018.9	897.0	99.4	85.0	99.4	85.0	101.8	81.5	8729	99.4
2001	5975.8	917.0	77.4	84.7	77.4	84.7	74.4	81.2	6776	77.4
2002	5509.7	917.0	68.5	83.9	68.5	83.9	68.6	80.6	6000	68.5
2003	7262.8	917.0	90.8	84.2	90.8	84.2	90.4	81.1	7950	90.8
2004	7388.1	917.0	92.0	84.6	92.0	84.5	91.7	81.5	8077	92.0
2005	7293.5	917.0	92.1	84.9	91.7	84.8	90.8	81.9	8034	91.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1980 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					246	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	688			842		
D. Inspection, maintenance or repair without refuelling				81		
E. Testing of plant systems or components				3		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					69	0
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			36			
Subtotal	688	0	36	926	328	0
Total		724			1254	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1980 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		2
14. Safety Systems		15
15. Reactor Cooling Systems		12
16. Steam generation systems		42
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		10
32. Feedwater and Main Steam System		19
33. Circulating Water System		0
41. Main Generator Systems		50
42. Electrical Power Supply Systems		84
Total	0	238

US-269 OCONEE-1

Operator: DUKE (DUKE POWER CO.)

Contractor: B&W (BABCOCK & WILCOX CO.)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 846.0 MW(e)

Design Net Capacity: 887.0 MW(e)

Design Discharge Burnup: 30000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6728.6 GW(e).h

Energy Availability Factor: 90.0%

Load Factor: 90.8%

Operating Factor: 89.9%

Energy Unavailability Factor: 10.0%

Total Off-line Time: 882 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	640.4	579.8	641.1	161.4	319.8	618.5	636.2	632.0	608.1	630.0	620.1	641.1	6728.6
EAF (%)	100.0	100.0	100.0	23.3	56.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0
UCF (%)	100.0	100.0	100.0	23.3	56.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0
LF (%)	101.8	102.0	101.9	26.5	50.8	101.5	101.1	100.4	99.8	100.0	101.8	101.9	90.8
OF (%)	100.0	100.0	100.0	26.5	52.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.9
EUF (%)	0.0	0.0	0.0	76.7	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
PUF (%)	0.0	0.0	0.0	76.7	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1967
Date of First Criticality: 19 Apr 1973
Date of Grid Connection: 06 May 1973
Date of Commercial Operation: 15 Jul 1973

Lifetime Generation: 182735.5 GW(e).h
Cumulative Energy Availability Factor: 78.8%
Cumulative Load Factor: 75.2%
Cumulative Unit Capability Factor: 79.1%
Cumulative Energy Unavailability Factor: 21.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	1959.1	659.0	70.5	70.5	70.5	70.5	67.3	67.3	3350	75.9
1974	4230.3	920.0	100.0	92.2	100.0	92.2	52.5	56.4	5141	58.7
1975	5299.3	871.0	69.5	82.9	69.5	82.9	69.5	61.8	6672	76.2
1976	4003.5	871.0	52.4	74.0	52.4	74.0	52.3	59.0	5029	57.3
1977	3949.0	860.0	52.5	69.2	52.5	69.2	52.4	57.5	5455	62.3
1978	5054.4	860.0	67.1	68.8	67.1	68.8	67.1	59.3	6299	71.9
1979	5003.1	860.0	66.4	68.4	66.4	68.4	66.4	60.4	6220	71.0
1980	5118.3	860.0	86.3	70.8	76.2	69.5	67.8	61.4	6634	75.5
1981	3023.2	860.0	42.9	67.5	42.9	66.4	40.1	58.9	3657	41.7
1982	5152.8	860.0	73.5	68.2	73.5	67.1	68.4	59.9	6335	72.3
1983	5672.0	860.0	78.4	69.2	78.4	68.2	75.3	61.3	6804	77.7
1984	6173.7	860.0	83.6	70.4	83.6	69.5	81.7	63.1	7312	83.2
1985	7066.0	860.0	96.2	72.5	96.2	71.7	93.8	65.6	8424	96.2
1986	4793.9	860.0	70.2	72.3	70.2	71.6	63.6	65.4	5870	67.0
1987	5031.1	860.0	76.8	72.6	76.8	71.9	66.8	65.5	6693	76.4
1988	7192.2	846.0	99.5	74.3	99.5	73.7	96.8	67.5	8742	99.5
1989	5943.1	846.0	82.9	74.9	82.9	74.2	80.2	68.3	7264	82.9
1990	6454.8	846.0	88.5	75.6	88.5	75.0	87.1	69.3	7751	88.5
1991	6022.5	846.0	82.7	76.0	82.7	75.4	81.3	70.0	7245	82.7
1992	6277.7	846.0	85.3	76.5	85.3	76.0	84.5	70.7	7494	85.3
1993	6525.1	846.0	89.4	77.1	89.4	76.6	88.0	71.5	7833	89.4
1994	6088.7	846.0	83.4	77.4	83.4	76.9	82.2	72.0	7302	83.4
1995	6360.5	846.0	86.1	77.8	86.1	77.3	85.8	72.6	7537	86.0
1996	5567.0	846.0	75.2	77.7	75.2	77.2	74.9	72.7	6606	75.2
1997	3194.2	846.0	51.3	76.6	51.3	76.2	43.1	71.5	4482	51.2
1998	5996.4	846.0	82.8	76.8	82.8	76.4	80.9	71.9	7255	82.8
1999	6212.6	846.0	85.1	77.1	85.1	76.8	83.8	72.4	7383	84.3
2000	6312.7	846.0	84.8	77.4	84.8	77.1	84.9	72.8	7445	84.8
2001	6962.6	846.0	94.0	78.0	94.0	77.6	94.0	73.5	8210	93.7
2002	6607.5	846.0	88.9	78.4	88.9	78.0	89.2	74.1	7788	88.9
2003	5258.6	846.0	71.8	78.2	71.8	77.8	71.0	74.0	6288	71.8
2004	7260.2	846.0	97.3	78.8	97.3	78.4	97.7	74.7	8549	97.3
2005	6728.6	846.0	90.0	79.1	90.0	78.8	90.8	75.2	7879	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					609	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	767			884		
D. Inspection, maintenance or repair without refuelling	111			162	2	
E. Testing of plant systems or components	1			25	1	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				0		
H. Nuclear regulatory requirements				2	0	34
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	0
Subtotal	879	0	0	1073	613	34
Total	879			1720		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		48
12. Reactor I&C Systems		69
13. Reactor Auxiliary Systems		2
14. Safety Systems		44
15. Reactor Cooling Systems		131
16. Steam generation systems		171
17. Safety I&C Systems (excluding reactor I&C)		0
21. Fuel Handling and Storage Facilities		0
31. Turbine and auxiliaries		53
32. Feedwater and Main Steam System		21
41. Main Generator Systems		10
42. Electrical Power Supply Systems		17
XX. Miscellaneous Systems		21
Total	0	587

US-270 OCONEE-2

Operator: DUKE (DUKE POWER CO.)

Contractor: B&W (BABCOCK & WILCOX CO.)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 846.0 MW(e)

Design Net Capacity: 887.0 MW(e)

Design Discharge Burnup: 30000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6672.3 GW(e).h

Energy Availability Factor: 89.1%

Load Factor: 90.0%

Operating Factor: 89.1%

Energy Unavailability Factor: 10.9%

Total Off-line Time: 952 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	650.7	586.9	652.3	628.1	646.3	625.3	641.7	636.9	608.3	350.4	0.0	645.4	6672.3
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	67.7	1.2	100.0	89.1
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	67.7	1.2	100.0	89.1
LF (%)	103.4	103.2	103.6	103.1	102.7	102.7	101.9	101.2	99.9	55.7	0.0	102.5	90.0
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	67.7	1.3	100.0	89.1
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.3	98.8	0.0	10.9
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.3	98.8	0.0	10.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1967
Date of First Criticality: 11 Nov 1973
Date of Grid Connection: 05 Dec 1973
Date of Commercial Operation: 09 Sep 1974

Lifetime Generation: 181614.1 GW(e).h
Cumulative Energy Availability Factor: 79.9%
Cumulative Load Factor: 77.1%
Cumulative Unit Capability Factor: 80.2%
Cumulative Energy Unavailability Factor: 20.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	1470.1	920.0	100.0	100.0	100.0	100.0	54.6	54.6	1812	61.9
1975	4970.6	871.0	65.2	74.3	65.2	74.3	65.1	62.4	6398	73.0
1976	4232.6	871.0	55.4	66.2	55.4	66.2	55.3	59.4	5483	62.4
1977	3830.0	860.0	50.9	61.7	50.9	61.7	50.8	56.9	5315	60.7
1978	4786.2	860.0	63.5	62.1	63.5	62.1	63.5	58.4	6155	70.3
1979	5968.2	860.0	79.2	65.3	79.2	65.3	79.2	62.2	7532	86.0
1980	3882.0	860.0	69.6	66.0	62.0	64.8	51.4	60.5	5397	61.4
1981	5198.9	860.0	81.0	68.0	81.0	67.0	69.0	61.7	7050	80.5
1982	3447.7	860.0	53.5	66.3	53.5	65.4	45.8	59.8	4580	52.3
1983	5147.0	860.0	73.2	67.0	73.2	66.2	68.3	60.7	6348	72.5
1984	7298.0	860.0	100.0	70.2	100.0	69.5	96.6	64.2	8784	100.0
1985	5060.0	860.0	76.3	70.7	76.3	70.1	67.2	64.4	6654	76.0
1986	5803.1	860.0	81.4	71.6	81.4	71.0	77.0	65.4	7169	81.8
1987	6228.7	860.0	98.0	73.6	98.0	73.0	82.7	66.7	8565	97.8
1988	5540.0	846.0	78.3	73.9	78.3	73.4	74.5	67.3	6880	78.3
1989	6013.1	846.0	83.1	74.5	83.1	74.0	81.1	68.2	7272	83.0
1990	6269.4	846.0	85.3	75.1	85.3	74.7	84.6	69.1	7469	85.3
1991	7427.9	846.0	100.0	76.5	100.0	76.1	100.2	70.9	8760	100.0
1992	5946.9	846.0	80.9	76.8	80.9	76.4	80.0	71.4	7103	80.9
1993	6236.3	846.0	83.9	77.1	83.9	76.7	84.1	72.1	7352	83.9
1994	6148.5	846.0	83.3	77.4	83.3	77.1	83.0	72.6	7292	83.2
1995	6973.9	846.0	94.3	78.2	94.3	77.9	94.1	73.6	8263	94.3
1996	4432.0	846.0	60.4	77.4	60.4	77.1	59.6	73.0	5304	60.4
1997	5876.8	846.0	79.7	77.5	79.7	77.2	79.3	73.2	6974	79.6
1998	5654.7	846.0	77.4	77.5	77.4	77.2	76.3	73.4	6776	77.4
1999	6257.6	846.0	84.2	77.8	84.2	77.5	84.4	73.8	7374	84.2
2000	7499.5	846.0	100.0	78.6	100.0	78.3	100.9	74.8	8784	100.0
2001	6688.4	846.0	89.5	79.0	89.5	78.7	90.3	75.4	7836	89.5
2002	6611.1	846.0	88.4	79.3	88.4	79.1	89.2	75.8	7743	88.4
2003	7568.7	846.0	100.0	80.0	100.0	79.8	102.1	76.7	8760	100.0
2004	5676.1	846.0	75.8	79.9	75.8	79.6	76.4	76.7	6652	75.7
2005	6672.3	846.0	89.1	80.2	89.1	79.9	90.0	77.1	7808	89.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				0	605	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	950			910		
D. Inspection, maintenance or repair without refuelling				69	2	
E. Testing of plant systems or components	1			6	1	
H. Nuclear regulatory requirements				0		33
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					0	
Subtotal	951	0	0	985	609	33
Total	951			1627		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		45
12. Reactor I&C Systems		66
13. Reactor Auxiliary Systems		11
14. Safety Systems		49
15. Reactor Cooling Systems		110
16. Steam generation systems		124
31. Turbine and auxiliaries		165
32. Feedwater and Main Steam System		9
33. Circulating Water System		2
41. Main Generator Systems		4
42. Electrical Power Supply Systems		15
Total	0	600

US-287 OCONEE-3

Operator: DUKE (DUKE POWER CO.)

Contractor: B&W (BABCOCK & WILCOX CO.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 846.0 MW(e)
Design Net Capacity: 887.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7237.0 GW(e).h
Energy Availability Factor: 95.9%
Load Factor: 97.6%
Operating Factor: 95.8%
Energy Unavailability Factor: 4.1%
Total Off-line Time: 366 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	563.2	455.3	653.5	627.2	651.2	618.0	645.9	633.2	476.1	641.2	621.3	650.8	7237.0
EAF (%)	90.3	80.3	100.0	100.0	100.0	100.0	100.0	96.8	81.5	100.0	100.0	100.0	95.9
UCF (%)	90.3	80.3	100.0	100.0	100.0	100.0	100.0	96.8	81.5	100.0	100.0	100.0	95.9
LF (%)	89.5	80.1	103.8	103.0	103.5	101.5	102.6	100.6	78.2	101.7	102.0	103.4	97.6
OF (%)	90.2	80.2	100.0	99.9	100.0	100.0	100.0	98.7	79.3	100.0	100.0	100.0	95.8
EUF (%)	9.7	19.7	0.0	0.0	0.0	0.0	0.0	3.2	18.5	0.0	0.0	0.0	4.1
PUF (%)	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
UCLF (%)	3.5	19.7	0.0	0.0	0.0	0.0	0.0	3.2	18.5	0.0	0.0	0.0	3.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1967
Date of First Criticality: 05 Sep 1974
Date of Grid Connection: 18 Sep 1974
Date of Commercial Operation: 16 Dec 1974

Lifetime Generation: 178351.1 GW(e).h
Cumulative Energy Availability Factor: 78.6%
Cumulative Load Factor: 76.7%
Cumulative Unit Capability Factor: 78.9%
Cumulative Energy Unavailability Factor: 21.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	0.0	871.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1975	5037.4	871.0	66.1	68.7	66.1	68.7	66.0	60.9	6761	77.2
1976	4758.0	871.0	62.3	65.6	62.3	65.6	62.2	61.5	6072	69.1
1977	5268.7	860.0	69.9	67.0	69.9	67.0	69.9	64.2	6545	74.7
1978	6064.3	860.0	80.5	70.3	80.5	70.3	80.5	68.2	7444	85.0
1979	3278.9	860.0	43.5	65.0	43.5	65.0	43.5	63.3	4038	46.1
1980	5224.6	860.0	84.8	68.3	73.8	66.5	69.2	64.3	6414	73.0
1981	5641.4	860.0	78.6	69.7	78.6	68.2	74.9	65.8	6835	78.0
1982	2128.4	860.0	33.5	65.3	33.5	63.9	28.3	61.2	2826	32.3
1983	7099.1	860.0	96.5	68.7	96.5	67.5	94.2	64.8	8436	96.3
1984	5355.5	860.0	74.2	69.2	74.2	68.2	70.9	65.4	6474	73.7
1985	4860.8	860.0	69.7	69.3	69.7	68.3	64.5	65.3	6071	69.3
1986	6064.3	860.0	90.0	71.0	90.0	70.1	80.5	66.6	7781	88.8
1987	5094.4	860.0	69.8	70.9	69.8	70.1	67.6	66.6	6068	69.3
1988	5965.8	846.0	81.9	71.7	81.9	70.9	80.3	67.6	7190	81.9
1989	6337.4	846.0	86.6	72.6	86.6	71.9	85.5	68.8	7585	86.6
1990	7427.8	846.0	99.5	74.3	99.5	73.6	100.2	70.7	8712	99.5
1991	5594.6	846.0	86.6	75.0	86.6	74.3	75.5	71.0	6691	76.4
1992	5448.2	846.0	75.5	75.0	75.5	74.4	73.3	71.1	6634	75.5
1993	7393.8	846.0	98.7	76.2	98.7	75.7	99.8	72.6	8647	98.7
1994	5670.8	846.0	77.5	76.3	77.5	75.8	76.5	72.8	6781	77.4
1995	6467.8	846.0	87.1	76.8	87.1	76.3	87.3	73.5	7625	87.0
1996	5454.0	846.0	73.2	76.6	73.2	76.1	73.4	73.5	6429	73.2
1997	4652.6	846.0	64.6	76.1	64.6	75.7	62.8	73.0	5633	64.3
1998	5786.4	846.0	80.1	76.3	80.1	75.8	78.1	73.2	7026	80.2
1999	7369.5	846.0	99.0	77.2	99.0	76.8	99.4	74.2	8676	99.0
2000	6577.8	846.0	88.0	77.6	88.0	77.2	88.5	74.8	7729	88.0
2001	5398.5	846.0	72.6	77.4	72.6	77.0	72.8	74.7	6355	72.5
2002	7465.5	846.0	99.2	78.2	99.2	77.8	100.7	75.6	8688	99.2
2003	6318.0	846.0	85.2	78.4	85.2	78.0	85.3	76.0	7467	85.2
2004	5747.0	846.0	76.3	78.4	76.3	78.0	77.3	76.0	6698	76.3
2005	7237.0	846.0	95.9	78.9	95.9	78.6	97.6	76.7	8395	95.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		316		4	553	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	40			939		
D. Inspection, maintenance or repair without refuelling				130	0	
E. Testing of plant systems or components	5			6	5	
H. Nuclear regulatory requirements					89	36
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	16	0
Subtotal	45	316	0	1079	666	36
Total		361			1781	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		16
12. Reactor I&C Systems	157	96
13. Reactor Auxiliary Systems		40
14. Safety Systems		26
15. Reactor Cooling Systems		76
16. Steam generation systems		147
21. Fuel Handling and Storage Facilities		2
31. Turbine and auxiliaries	26	76
32. Feedwater and Main Steam System	132	19
41. Main Generator Systems		5
42. Electrical Power Supply Systems		6
XX. Miscellaneous Systems		19
Total	315	528

US-219 OYSTER CREEK

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 619.0 MW(e)
Design Net Capacity: 650.0 MW(e)
Design Discharge Burnup: 2800 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5374.9 GW(e).h
Energy Availability Factor: 99.4%
Load Factor: 99.1%
Operating Factor: 99.4%
Energy Unavailability Factor: 0.6%
Total Off-line Time: 55 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	470.5	428.9	465.3	445.5	463.2	401.5	445.1	427.3	439.5	464.1	454.1	469.8	5374.9
EAF (%)	100.0	100.0	100.0	100.0	100.0	92.6	100.0	100.0	100.0	100.0	100.0	100.0	99.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LF (%)	102.2	103.1	101.0	100.0	100.6	90.1	96.7	92.8	98.6	100.6	101.9	102.0	99.1
OF (%)	100.0	100.0	100.0	99.9	100.0	92.5	100.0	100.0	100.0	100.0	100.0	100.0	99.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.6

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Jan 1964	Lifetime Generation:	133434.2 GW(e).h
Date of First Criticality:	03 May 1969	Cumulative Energy Availability Factor:	73.5%
Date of Grid Connection:	23 Sep 1969	Cumulative Load Factor:	68.1%
Date of Commercial Operation:	01 Dec 1969	Cumulative Unit Capability Factor:	73.5%
		Cumulative Energy Unavailability Factor:	26.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1969	0.0	619.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1970	3591.0	540.0	100.0	100.0	100.0	100.0	75.9	69.2	6788	77.5
1971	3972.6	595.0	100.0	100.0	100.0	100.0	76.2	72.7	7046	80.4
1972	4503.8	670.0	100.0	100.0	100.0	100.0	76.5	74.1	7137	81.3
1973	3589.0	620.0	73.8	93.5	73.8	93.5	66.1	72.1	6401	73.1
1974	3679.6	650.0	66.6	87.9	66.6	87.9	64.6	70.5	6163	70.4
1975	3148.7	610.0	59.1	83.2	59.1	83.2	58.9	68.6	6414	73.2
1976	3860.1	620.0	70.9	81.4	70.9	81.4	70.9	69.0	6966	79.3
1977	3249.2	620.0	59.9	78.7	59.9	78.7	59.8	67.8	6136	70.0
1978	3645.7	620.0	66.5	77.4	66.5	77.4	67.1	67.7	6508	74.3
1979	4563.3	620.0	83.8	78.0	83.8	78.0	84.0	69.4	7520	85.8
1980	1957.3	620.0	41.8	74.7	41.8	74.7	35.9	66.3	3662	41.7
1981	2628.9	620.0	59.9	73.5	59.9	73.5	48.4	64.8	5237	59.8
1982	2013.0	620.0	62.5	72.7	62.5	72.7	37.1	62.7	5474	62.5
1983	225.5	620.0	11.5	68.3	11.5	68.3	4.2	58.5	1007	11.5
1984	305.2	620.0	9.6	64.4	9.6	64.4	5.6	55.0	842	9.6
1985	3746.0	620.0	74.5	65.0	74.5	65.0	69.0	55.9	6518	74.4
1986	1317.7	620.0	26.7	62.8	26.7	62.8	24.3	54.0	2310	26.4
1987	3113.4	620.0	62.0	62.7	62.0	62.7	57.3	54.2	5421	61.9
1988	3547.3	620.0	65.5	62.9	65.5	62.9	65.1	54.8	5749	65.4
1989	2410.1	620.0	53.6	62.4	53.6	62.4	44.4	54.3	4686	53.5
1990	4305.1	620.0	87.7	63.6	87.7	63.6	79.3	55.5	7678	87.6
1991	2954.8	610.0	59.0	63.4	59.0	63.4	54.5	55.4	5167	59.0
1992	4531.8	610.0	84.9	64.3	84.9	64.3	84.6	56.7	7463	85.0
1993	4667.5	610.0	87.4	65.3	87.4	65.3	87.3	57.9	7654	87.4
1994	3633.3	619.0	69.2	65.4	69.2	65.4	67.9	58.3	6096	69.6
1995	5194.1	619.0	97.2	66.7	97.2	66.7	95.8	59.7	8511	97.2
1996	4339.4	619.0	80.9	67.2	80.9	67.2	79.8	60.5	7104	80.9
1997	5073.3	619.0	93.2	68.1	93.2	68.1	93.6	61.7	8164	93.2
1998	4302.2	619.0	81.0	68.6	81.0	68.6	79.3	62.3	7094	81.0
1999	5388.5	619.0	100.0	69.6	100.0	69.6	99.4	63.5	8760	100.0
2000	3908.2	619.0	80.6	70.0	80.6	70.0	71.9	63.8	7073	80.5
2001	5226.4	619.0	97.0	70.8	97.0	70.8	96.4	64.8	8497	97.0
2002	5031.3	619.0	93.8	71.5	93.8	71.5	92.8	65.6	8215	93.8
2003	5256.3	619.0	96.7	72.2	96.7	72.2	96.9	66.6	8468	96.7
2004	4847.0	619.0	90.8	72.8	90.8	72.8	89.1	67.2	7973	90.8
2005	5374.9	619.0	100.0	73.5	99.4	73.5	99.1	68.1	8706	99.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					639	
B. Refuelling without a maintenance					35	
C. Inspection, maintenance or repair combined with refuelling	1457					
D. Inspection, maintenance or repair without refuelling	98					
E. Testing of plant systems or components	4	31				
F. Major back-fitting, refurbishment or upgrading activities with refuelling	0					
H. Nuclear regulatory requirements					15	8
J. Grid failure or grid unavailability					1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					66	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			53			
Subtotal	0	0	53	1559	787	8
Total	53			2354		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		14
13. Reactor Auxiliary Systems		10
14. Safety Systems		178
15. Reactor Cooling Systems		162
31. Turbine and auxiliaries		35
32. Feedwater and Main Steam System		68
33. Circulating Water System		7
35. All other I&C Systems		7
41. Main Generator Systems		33
42. Electrical Power Supply Systems		24
XX. Miscellaneous Systems		5
Total	0	543

US-255 PALISADES

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 767.0 MW(e)
Design Net Capacity: 805.0 MW(e)
Design Discharge Burnup: 33205 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6645.8 GW(e).h
Energy Availability Factor: 96.4%
Load Factor: 98.9%
Operating Factor: 96.4%
Energy Unavailability Factor: 3.6%
Total Off-line Time: 318 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	397.7	541.6	598.4	574.6	590.4	562.7	581.1	576.7	499.5	583.1	560.0	580.0	6645.8
EAF (%)	68.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.0	100.0	100.0	96.8	96.4
UCF (%)	68.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.0	100.0	100.0	96.8	96.4
LF (%)	69.7	105.1	104.9	104.0	103.5	101.9	101.8	101.1	90.5	102.0	101.4	101.6	98.9
OF (%)	68.4	100.0	100.0	99.9	100.0	100.0	100.0	100.0	91.9	100.0	100.0	96.8	96.4
EUF (%)	31.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	3.2	3.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.3
UCLF (%)	31.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	3.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Feb 1967	Lifetime Generation:	130170.2 GW(e).h
Date of First Criticality:	24 May 1971	Cumulative Energy Availability Factor:	66.6%
Date of Grid Connection:	31 Dec 1971	Cumulative Load Factor:	63.0%
Date of Commercial Operation:	31 Dec 1971	Cumulative Unit Capability Factor:	67.7%
		Cumulative Energy Unavailability Factor:	33.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1971			Data not provided							
1972	1899.1	400.0	100.0	100.0	100.0	100.0	54.0	54.0	4990	56.8
1973	2411.3	700.0	100.0	100.0	100.0	100.0	39.3	44.7	3829	43.7
1974	93.3	722.0	100.0	100.0	100.0	100.0	1.5	27.6	317	3.6
1975	2427.8	684.0	40.5	83.8	40.5	83.8	40.5	31.1	5649	64.5
1976	2846.9	684.0	47.4	76.0	47.4	76.0	47.4	34.6	4847	55.2
1977	5084.6	635.0	90.2	78.3	90.2	78.3	91.4	44.0	8004	91.4
1978	2624.2	635.0	46.0	73.7	46.0	73.7	47.2	44.5	4346	49.6
1979	3433.4	635.0	58.7	71.9	58.7	71.9	61.7	46.6	5241	59.8
1980	2379.1	635.0	80.0	72.8	39.7	68.3	42.7	46.2	3764	42.9
1981	3462.7	635.0	55.8	71.1	55.8	67.0	62.2	47.8	5009	57.2
1982	3345.0	635.0	49.3	69.1	49.3	65.4	60.1	48.9	4788	54.7
1983	3770.0	635.0	60.1	68.3	60.1	65.0	67.8	50.5	5282	60.3
1984	811.5	635.0	10.0	63.9	10.0	60.8	14.5	47.7	1334	15.2
1985	5301.8	730.0	82.0	65.2	82.0	62.3	91.8	51.0	7342	83.8
1986	841.2	730.0	14.9	61.4	14.9	58.7	13.2	48.1	1323	15.1
1987	2634.4	730.0	45.2	60.3	45.2	57.8	41.2	47.6	3980	45.4
1988	3435.2	730.0	53.7	59.8	53.7	57.5	53.6	48.0	4853	55.2
1989	3637.8	730.0	67.4	60.3	67.4	58.1	56.9	48.6	6019	68.7
1990	3008.1	730.0	56.1	60.0	56.1	58.0	47.0	48.5	5073	57.9
1991	4873.8	730.0	75.4	60.9	75.4	59.0	76.2	50.0	6693	76.4
1992	4865.1	730.0	70.5	61.4	70.5	59.6	75.9	51.3	6293	71.6
1993	3545.7	730.0	50.4	60.8	50.4	59.1	55.4	51.5	4595	52.5
1994	4513.8	730.0	65.5	61.1	65.5	59.4	70.6	52.4	5860	66.9
1995	4663.5	730.0	73.0	61.6	73.0	60.0	72.9	53.4	6491	74.1
1996	5314.3	730.0	79.7	62.4	79.7	60.9	82.9	54.6	7068	80.5
1997	5803.5	730.0	87.6	63.4	87.6	62.0	90.8	56.1	7714	88.1
1998	5390.6	730.0	81.1	64.1	81.1	62.7	84.3	57.2	7142	81.5
1999	5128.4	730.0	78.4	64.7	78.4	63.3	80.2	58.1	6910	78.9
2000	5748.0	730.0	86.8	65.5	86.8	64.2	89.6	59.3	7672	87.3
2001	2355.6	730.0	35.2	64.4	35.2	63.2	36.8	58.5	3118	35.6
2002	6369.4	730.0	94.2	65.4	93.2	64.2	99.6	59.9	8187	93.5
2003	6158.2	730.0	90.0	66.2	90.0	65.0	96.3	61.1	7914	90.3
2004	5346.1	730.0	81.1	66.7	81.1	65.6	83.4	61.8	7164	81.6
2005	6645.8	767.0	96.4	67.7	96.4	66.6	98.9	63.0	8443	96.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		292			1715	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling				1181		
D. Inspection, maintenance or repair without refuelling	23			165		
E. Testing of plant systems or components				1		
F. Major back-fitting, refurbishment or upgrading activities with refuelling					7	
H. Nuclear regulatory requirements					12	104
J. Grid failure or grid unavailability						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					27	
P. Fire					1	
Subtotal	23	292	0	1347	1768	110
Total		315			3225	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		141
13. Reactor Auxiliary Systems		151
14. Safety Systems		103
15. Reactor Cooling Systems		135
16. Steam generation systems		465
31. Turbine and auxiliaries	235	106
32. Feedwater and Main Steam System		98
33. Circulating Water System		37
35. All other I&C Systems		0
41. Main Generator Systems	57	59
42. Electrical Power Supply Systems		273
Total	292	1568

US-528 PALO VERDE-1**Operator:** ANPP (ARIZONA NUCLEAR POWER PROJECT)**Contractor:** CE (COMBUSTION ENGINEERING CO.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1243.0 MW(e)

Design Net Capacity: 1221.0 MW(e)

Design Discharge Burnup: 38000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7212.3 GW(e).h

Energy Availability Factor: 70.7%

Load Factor: 66.2%

Operating Factor: 70.7%

Energy Unavailability Factor: 29.3%

Total Off-line Time: 2566 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	907.1	470.5	801.8	872.5	898.9	873.9	898.6	378.1	873.4	199.3	0.0	38.2	7212.3
EAF (%)	100.0	62.1	90.9	100.0	100.0	100.0	100.0	46.4	100.0	22.6	0.0	26.6	70.7
UCF (%)	100.0	62.1	90.9	100.0	100.0	100.0	100.0	46.4	100.0	22.6	0.0	26.6	70.7
LF (%)	98.1	56.3	86.7	97.5	97.2	97.6	97.2	40.9	97.6	21.6	0.0	4.1	66.2
OF (%)	100.0	62.1	90.7	100.0	100.0	100.0	100.0	46.4	100.0	22.6	0.0	26.5	70.7
EUF (%)	0.0	37.9	9.1	0.0	0.0	0.0	0.0	53.6	0.0	77.4	100.0	73.4	29.3
PUF (%)	0.0	0.0	9.1	0.0	0.0	0.0	0.0	53.6	0.0	77.4	100.0	73.4	26.4
UCLF (%)	0.0	37.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 May 1976 **Lifetime Generation:** 164036.6 GW(e).h

Date of First Criticality: 25 May 1985 **Cumulative Energy Availability Factor:** 77.1%

Date of Grid Connection: 10 Jun 1985 **Cumulative Load Factor:** 75.6%

Date of Commercial Operation: 28 Jan 1986 **Cumulative Unit Capability Factor:** 77.4%

Cumulative Energy Unavailability Factor: 22.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	6264.7	1221.0	66.6	66.6	66.6	66.6	60.5	60.5	5349	63.1
1987	5268.3	1221.0	50.9	58.6	50.9	58.6	49.3	54.8	4500	51.4
1988	6668.7	1221.0	62.8	60.0	62.8	60.0	62.2	57.3	5585	63.6
1989	1796.6	1221.0	14.1	48.5	14.1	48.5	16.8	47.1	1522	17.4
1990	4719.5	1221.0	42.6	47.3	42.6	47.3	44.1	46.5	3925	44.8
1991	9312.1	1221.0	87.1	54.0	85.8	53.7	87.1	53.3	7567	86.4
1992	7118.8	1221.0	67.2	55.9	67.2	55.7	66.4	55.2	6010	68.4
1993	7514.8	1221.0	76.1	58.4	76.1	58.2	70.3	57.1	6665	76.1
1994	9772.5	1221.0	98.8	62.9	98.8	62.7	91.4	60.9	8656	98.8
1995	8526.8	1227.0	82.1	64.8	82.1	64.7	79.5	62.8	7244	82.7
1996	8713.0	1227.0	84.4	66.6	82.0	66.3	80.8	64.4	7246	82.5
1997	10737.7	1243.0	98.8	69.3	98.8	69.0	98.5	67.3	8658	98.8
1998	9575.0	1243.0	89.0	70.9	89.0	70.6	87.9	68.9	7819	89.3
1999	9653.9	1243.0	88.8	72.2	88.8	71.9	88.7	70.4	7774	88.7
2000	10966.6	1243.0	99.8	74.1	99.8	73.8	100.4	72.4	8770	99.8
2001	9559.6	1243.0	88.0	74.9	88.0	74.7	87.8	73.4	7712	88.0
2002	9705.0	1243.0	90.1	75.8	90.1	75.6	89.1	74.3	7890	90.1
2003	10587.1	1243.0	98.2	77.1	98.2	76.9	97.2	75.6	8604	98.2
2004	9235.8	1243.0	88.5	77.7	87.3	77.5	84.6	76.1	7669	87.3
2005	7212.3	1243.0	70.7	77.4	70.7	77.1	66.2	75.6	6194	70.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		254			582	
B. Refuelling without a maintenance					8	
C. Inspection, maintenance or repair combined with refuelling	1826			1168		
D. Inspection, maintenance or repair without refuelling	398			64		
E. Testing of plant systems or components	84			0	13	
J. Grid failure or grid unavailability						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					26	13
Subtotal	2308	254	0	1232	629	19
Total		2562			1880	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		111
13. Reactor Auxiliary Systems		5
14. Safety Systems		17
15. Reactor Cooling Systems		80
16. Steam generation systems		57
31. Turbine and auxiliaries		5
32. Feedwater and Main Steam System		115
35. All other I&C Systems		2
41. Main Generator Systems		10
42. Electrical Power Supply Systems	254	70
XX. Miscellaneous Systems		2
Total	254	474

US-529 PALO VERDE-2

Operator: ANPP (ARIZONA NUCLEAR POWER PROJECT)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1335.0 MW(e)
 Design Net Capacity: 1304.0 MW(e)
 Design Discharge Burnup: 38000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9427.2 GW(e).h
 Energy Availability Factor: 83.2%
 Load Factor: 80.6%
 Operating Factor: 83.2%
 Energy Unavailability Factor: 16.8%
 Total Off-line Time: 1476 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	976.4	884.1	983.5	26.5	245.6	949.8	975.7	822.5	949.3	667.1	956.5	990.2	9427.2
EAF (%)	100.0	100.0	100.0	3.3	35.9	100.0	100.0	88.7	100.0	71.0	100.0	100.0	83.2
UCF (%)	100.0	100.0	100.0	3.3	35.9	100.0	100.0	88.7	100.0	71.0	100.0	100.0	83.2
LF (%)	98.3	98.5	99.0	2.8	24.7	98.8	98.2	82.8	98.8	67.2	99.5	99.7	80.6
OF (%)	100.0	100.0	100.0	3.3	35.8	100.0	100.0	88.6	100.0	70.8	100.0	100.0	83.2
EUF (%)	0.0	0.0	0.0	96.7	64.1	0.0	0.0	11.3	0.0	29.0	0.0	0.0	16.8
PUF (%)	0.0	0.0	0.0	96.7	64.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	0.0	29.0	0.0	0.0	3.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1976
 Date of First Criticality: 18 Apr 1986
 Date of Grid Connection: 20 May 1986
 Date of Commercial Operation: 19 Sep 1986

Lifetime Generation: 165477.5 GW(e).h
 Cumulative Energy Availability Factor: 79.2%
 Cumulative Load Factor: 78.7%
 Cumulative Unit Capability Factor: 79.4%
 Cumulative Energy Unavailability Factor: 20.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986			Data not provided							
1987	8190.0	1221.0	77.6	77.6	77.6	77.6	76.6	76.6	6860	78.3
1988	6747.2	1221.0	62.6	70.1	62.6	70.1	62.9	69.7	5613	63.9
1989	4698.8	1221.0	44.3	61.5	44.3	61.5	43.9	61.1	4003	45.7
1990	6242.2	1221.0	58.6	60.8	58.6	60.8	58.4	60.4	5276	60.2
1991	8265.2	1221.0	76.3	63.9	76.3	63.9	77.3	63.8	6690	76.4
1992	10104.5	1221.0	94.9	69.0	94.9	69.0	94.2	68.9	8341	95.0
1993	5125.3	1221.0	50.9	66.5	50.9	66.5	47.9	65.9	4621	52.8
1994	6573.9	1221.0	66.8	66.5	66.8	66.5	61.5	65.3	5919	67.6
1995	9070.9	1227.0	84.2	68.5	84.2	68.5	84.6	67.5	7420	84.7
1996	9346.1	1227.0	85.5	70.2	85.5	70.2	86.7	69.4	7548	85.9
1997	9322.7	1243.0	87.2	71.8	87.2	71.8	85.5	70.9	7661	87.4
1998	11084.8	1243.0	100.0	74.1	100.0	74.1	101.8	73.5	8760	100.0
1999	9797.3	1243.0	89.7	75.4	89.7	75.4	90.0	74.8	7857	89.7
2000	9525.3	1243.0	88.2	76.3	88.2	76.3	87.2	75.7	7743	88.1
2001	10083.5	1243.0	91.4	77.3	91.4	77.3	92.6	76.8	8002	91.3
2002	10019.2	1243.0	91.1	78.2	91.1	78.2	92.0	77.8	7981	91.1
2003	8444.4	1243.0	77.7	78.1	77.7	78.1	77.6	77.8	6809	77.7
2004	10662.1	1335.0	94.9	79.1	92.6	79.0	92.0	78.6	8138	92.6
2005	9427.2	1335.0	83.2	79.4	83.2	79.2	80.6	78.7	7284	83.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1987 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		300			182	
B. Refuelling without a maintenance					14	
C. Inspection, maintenance or repair combined with refuelling	1173			1060		
D. Inspection, maintenance or repair without refuelling				258		
E. Testing of plant systems or components				0		
J. Grid failure or grid unavailability						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				138	47	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						3
Subtotal	1173	300	0	1456	243	9
Total		1473			1708	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1987 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems	84	25
13. Reactor Auxiliary Systems		8
14. Safety Systems	216	2
15. Reactor Cooling Systems		12
16. Steam generation systems		29
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		11
32. Feedwater and Main Steam System		6
35. All other I&C Systems		2
41. Main Generator Systems		6
42. Electrical Power Supply Systems		18
Total	300	123

US-530 PALO VERDE-3

Operator: ANPP (ARIZONA NUCLEAR POWER PROJECT)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1247.0 MW(e)

Design Net Capacity: 1304.0 MW(e)

Design Discharge Burnup: 38000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9164.0 GW(e).h

Energy Availability Factor: 85.3%

Load Factor: 83.9%

Operating Factor: 85.3%

Energy Unavailability Factor: 14.7%

Total Off-line Time: 1289 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	934.6	839.0	924.6	889.3	645.6	162.2	675.3	914.2	889.7	450.9	904.1	934.4	9164.0
EAF (%)	100.0	100.0	100.0	100.0	67.7	26.1	76.9	100.0	100.0	53.9	100.0	100.0	85.3
UCF (%)	100.0	100.0	100.0	100.0	67.7	26.1	76.9	100.0	100.0	53.9	100.0	100.0	85.3
LF (%)	100.7	100.1	99.7	99.0	69.6	18.1	72.8	98.5	99.1	48.6	100.7	100.7	83.9
OF (%)	100.0	100.0	100.0	100.0	70.8	22.6	76.9	100.0	100.0	53.9	100.0	100.0	85.3
EUF (%)	0.0	0.0	0.0	0.0	32.3	73.9	23.1	0.0	0.0	46.1	0.0	0.0	14.7
PUF (%)	0.0	0.0	0.0	0.0	32.3	73.9	23.1	0.0	0.0	16.3	0.0	0.0	12.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.8	0.0	0.0	2.5
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jun 1976 Lifetime Generation: 160451.2 GW(e).h

Date of First Criticality: 25 Oct 1987 Cumulative Energy Availability Factor: 82.9%

Date of Grid Connection: 28 Nov 1987 Cumulative Load Factor: 82.4%

Date of Commercial Operation: 08 Jan 1988 Cumulative Unit Capability Factor: 83.2%

 Cumulative Energy Unavailability Factor: 17.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	10035.5	1221.0	94.9	94.9	94.9	94.9	95.4	95.4	8177	94.9
1989	1328.0	1221.0	9.0	51.6	9.0	51.6	12.4	53.6	1096	12.5
1990	9636.0	1221.0	91.6	65.0	91.6	65.0	90.1	65.8	8048	91.9
1991	7518.5	1221.0	75.3	67.6	70.8	66.5	70.3	66.9	6272	71.6
1992	8386.2	1221.0	78.7	69.8	78.7	68.9	78.2	69.2	6923	78.8
1993	9393.9	1221.0	90.1	73.2	90.1	72.5	87.8	72.3	7898	90.2
1994	6824.5	1221.0	66.4	72.2	66.4	71.6	63.8	71.1	5920	67.6
1995	9386.8	1230.0	86.6	74.0	86.6	73.5	87.4	73.1	7628	87.1
1996	10789.6	1230.0	99.5	76.9	99.0	76.3	99.9	76.1	8699	99.0
1997	9456.1	1247.0	89.1	78.1	89.1	77.6	86.5	77.2	7820	89.3
1998	9600.9	1247.0	89.3	79.2	89.3	78.7	87.9	78.2	7835	89.4
1999	10956.5	1247.0	100.0	80.9	100.0	80.5	100.3	80.1	8760	100.0
2000	9888.7	1247.0	89.9	81.6	89.9	81.3	90.3	80.9	7898	89.9
2001	9170.4	1247.0	85.0	81.9	85.0	81.5	83.9	81.1	7439	84.9
2002	11137.7	1247.0	100.0	83.1	100.0	82.8	102.0	82.5	8760	100.0
2003	9554.7	1247.0	88.0	83.4	88.0	83.1	87.5	82.8	7712	88.0
2004	8223.3	1247.0	78.4	83.1	76.6	82.7	75.1	82.3	6729	76.6
2005	9164.0	1247.0	85.3	83.2	85.3	82.9	83.9	82.4	7471	85.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		221			132	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				1101		
D. Inspection, maintenance or repair without refuelling	1065			90	11	
E. Testing of plant systems or components				0		
H. Nuclear regulatory requirements					3	
J. Grid failure or grid unavailability						10
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					25	22
Subtotal	1065	221	0	1191	173	32
Total		1286			1396	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
13. Reactor Auxiliary Systems		6
14. Safety Systems	221	11
16. Steam generation systems		2
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		14
32. Feedwater and Main Steam System		5
41. Main Generator Systems		11
42. Electrical Power Supply Systems		37
Total	221	89

US-277 PEACH BOTTOM-2

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1112.0 MW(e)
Design Net Capacity: 1065.0 MW(e)
Design Discharge Burnup: 38700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9615.1 GW(e).h
Energy Availability Factor: 97.8%
Load Factor: 98.7%
Operating Factor: 97.8%
Energy Unavailability Factor: 2.2%
Total Off-line Time: 192 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	838.0	663.5	856.8	825.3	827.3	810.6	763.8	829.4	674.7	848.2	825.3	852.4	9615.1
EAF (%)	100.0	90.6	100.0	100.0	100.0	100.0	95.3	100.0	87.1	100.0	100.0	100.0	97.8
UCF (%)	100.0	90.6	100.0	100.0	100.0	100.0	95.3	100.0	87.1	100.0	100.0	100.0	97.8
LF (%)	101.3	88.8	103.6	103.1	100.0	101.2	92.3	100.2	84.3	102.4	103.1	103.0	98.7
OF (%)	100.0	90.6	100.0	99.9	100.0	100.0	95.3	100.0	87.1	100.0	100.0	100.0	97.8
EUF (%)	0.0	9.4	0.0	0.0	0.0	0.0	4.7	0.0	12.9	0.0	0.0	0.0	2.2
PUF (%)	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	12.9	0.0	0.0	0.0	1.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1968
Date of First Criticality: 16 Sep 1973
Date of Grid Connection: 18 Feb 1974
Date of Commercial Operation: 05 Jul 1974

Lifetime Generation: 203459.5 GW(e).h
Cumulative Energy Availability Factor: 71.4%
Cumulative Load Factor: 68.5%
Cumulative Unit Capability Factor: 71.4%
Cumulative Energy Unavailability Factor: 28.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	3659.4	1050.0	90.5	90.5	90.5	90.5	78.9	78.9	4000	90.6
1975	5082.5	1051.0	55.3	67.1	55.3	67.1	55.2	63.1	6638	75.8
1976	5580.4	1051.0	60.5	64.4	60.5	64.4	60.4	62.1	5998	68.3
1977	4051.6	1051.0	44.0	58.6	44.0	58.6	44.0	56.9	4836	55.2
1978	6793.6	1051.0	73.8	62.0	73.8	62.0	73.8	60.7	7299	83.3
1979	8574.4	1051.0	92.9	67.6	92.9	67.6	93.1	66.6	8295	94.7
1980	4372.6	1051.0	49.9	64.9	49.9	64.9	47.4	63.6	4529	51.6
1981	6635.3	1051.0	78.5	66.7	78.5	66.7	72.1	64.7	6938	79.2
1982	4816.8	1051.0	56.5	65.5	56.5	65.5	52.3	63.3	5089	58.1
1983	4481.1	1051.0	49.6	63.8	49.0	63.8	48.7	61.7	4461	50.9
1984	2465.8	1051.0	28.9	60.5	28.9	60.4	26.7	58.4	2544	29.0
1985	2378.2	1051.0	28.7	57.7	28.7	57.7	25.8	55.6	2570	29.3
1986	6896.6	1051.0	79.8	59.5	79.8	59.4	74.9	57.1	7010	80.0
1987	1599.9	1051.0	16.5	56.3	16.5	56.3	17.4	54.2	1724	19.7
1988	0.0	1051.0	0.0	52.4	0.0	52.4	0.0	50.4	0	0.0
1989	3880.9	1051.0	52.3	52.4	52.3	52.4	42.2	49.9	4735	54.1
1990	6699.8	1055.0	78.9	54.0	78.9	54.0	72.5	51.3	6977	79.6
1991	5121.0	1055.0	58.8	54.3	58.8	54.3	55.4	51.5	5277	60.2
1992	5677.9	1055.0	64.9	54.9	64.9	54.8	61.3	52.0	5811	66.2
1993	7704.1	1055.0	85.9	56.5	85.9	56.4	83.5	53.6	7571	86.4
1994	7450.7	1093.0	88.8	58.0	88.8	58.0	80.6	55.0	7783	88.8
1995	9363.4	1093.0	98.2	60.0	98.2	60.0	97.8	57.0	8598	98.2
1996	7660.6	1093.0	93.1	61.5	93.1	61.5	79.8	58.1	8176	93.1
1997	9570.3	1093.0	98.9	63.1	98.9	63.1	100.0	59.9	8663	98.9
1998	7658.8	1093.0	90.4	64.3	90.4	64.3	80.0	60.8	7923	90.4
1999	9462.3	1093.0	98.6	65.7	98.6	65.7	98.8	62.3	8635	98.6
2000	8523.0	1093.0	93.0	66.7	93.0	66.7	88.8	63.3	8169	93.0
2001	9369.2	1093.0	97.8	67.9	97.8	67.9	97.9	64.6	8563	97.8
2002	8838.9	1093.0	93.0	68.8	93.0	68.8	92.3	65.6	8149	93.0
2003	9265.8	1112.0	96.3	69.8	96.3	69.8	94.9	66.7	8430	96.2
2004	8886.1	1112.0	91.8	70.5	91.8	70.5	91.0	67.5	8066	91.8
2005	9615.1	1112.0	97.8	71.4	97.8	71.4	98.7	68.5	8569	97.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					447	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling				1378		
D. Inspection, maintenance or repair without refuelling	155			245	0	
E. Testing of plant systems or components				6	0	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				1		
H. Nuclear regulatory requirements				125	47	14
J. Grid failure or grid unavailability					6	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				36	7	1
L. Human factor related		34				
Subtotal	155	34	0	1791	513	15
Total		189			2319	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		24
13. Reactor Auxiliary Systems		18
14. Safety Systems		50
15. Reactor Cooling Systems		115
31. Turbine and auxiliaries		55
32. Feedwater and Main Steam System		33
35. All other I&C Systems		2
41. Main Generator Systems		7
42. Electrical Power Supply Systems		58
XX. Miscellaneous Systems		6
Total	0	368

US-278 PEACH BOTTOM-3

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 1112.0 MW(e)
Design Net Capacity: 1065.0 MW(e)
Design Discharge Burnup: 36700 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8848.9 GW(e).h
Energy Availability Factor: 92.5%
Load Factor: 90.8%
Operating Factor: 92.5%
Energy Unavailability Factor: 7.5%
Total Off-line Time: 655 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	842.4	740.8	795.6	814.9	828.3	795.9	796.4	771.8	429.4	359.6	820.7	853.0	8848.9
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	60.0	50.9	100.0	100.0	92.5
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	60.0	50.9	100.0	100.0	92.5
LF (%)	101.8	99.1	96.2	101.8	100.1	99.4	96.3	93.3	53.6	43.5	102.5	103.1	90.8
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	62.9	48.0	100.0	100.0	92.5
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	49.1	0.0	0.0	7.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	49.1	0.0	0.0	7.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1968
Date of First Criticality: 07 Aug 1974
Date of Grid Connection: 01 Sep 1974
Date of Commercial Operation: 23 Dec 1974

Lifetime Generation: 201154.4 GW(e).h
Cumulative Energy Availability Factor: 71.6%
Cumulative Load Factor: 69.7%
Cumulative Unit Capability Factor: 71.7%
Cumulative Energy Unavailability Factor: 28.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	396.1	1035.0	74.9	74.9	74.9	74.9	51.4	51.4	558	75.0
1975	5282.4	1035.0	58.2	59.5	58.2	59.5	58.3	57.7	7520	85.8
1976	6056.8	1035.0	66.7	62.9	66.7	62.9	66.6	62.0	6829	77.7
1977	4787.8	1035.0	52.8	59.7	52.8	59.7	52.8	59.0	5450	62.2
1978	6973.6	1035.0	76.9	63.9	76.9	63.9	76.9	63.4	7412	84.6
1979	6110.4	1035.0	67.2	64.5	67.2	64.5	67.4	64.2	6500	74.2
1980	7233.4	1035.0	80.1	67.1	79.7	67.0	79.6	66.7	7089	80.7
1981	3171.1	1035.0	33.0	62.3	33.0	62.2	35.0	62.2	3201	36.5
1982	8532.3	1035.0	95.3	66.4	95.3	66.3	94.1	66.2	8372	95.6
1983	2465.7	1035.0	27.5	62.1	27.1	62.0	27.2	61.9	2714	31.0
1984	7445.5	1035.0	86.2	64.5	85.2	64.3	81.9	63.9	7545	85.9
1985	3320.8	1035.0	45.1	62.8	45.1	62.6	36.6	61.4	3988	45.5
1986	4858.8	1035.0	60.9	62.6	60.9	62.5	53.6	60.8	5542	63.3
1987	1507.7	1035.0	14.4	58.9	14.4	58.8	16.6	57.4	1658	18.9
1988	0.0	1035.0	0.0	54.7	0.0	54.6	0.0	53.3	0	0.0
1989	247.3	1035.0	0.1	51.1	0.1	51.0	2.7	50.0	472	5.4
1990	7534.1	1035.0	87.1	53.3	87.1	53.2	83.1	52.0	7684	87.7
1991	5118.9	1035.0	59.1	53.7	57.3	53.5	56.5	52.3	5212	59.5
1992	7180.9	1035.0	83.6	55.3	83.6	55.1	79.0	53.8	7391	84.1
1993	6314.0	1035.0	73.9	56.3	73.9	56.1	69.6	54.6	6594	75.3
1994	8867.4	1035.0	97.9	58.4	97.9	58.2	97.8	56.7	8588	98.0
1995	7172.5	1093.0	90.1	59.9	90.1	59.7	78.0	57.8	7929	90.5
1996	9424.7	1093.0	98.2	61.7	98.2	61.6	98.2	59.7	8627	98.2
1997	7566.6	1093.0	90.3	63.0	90.3	62.9	79.0	60.6	7909	90.3
1998	8823.6	1093.0	93.3	64.4	93.3	64.2	92.2	61.9	8172	93.3
1999	8558.6	1093.0	92.5	65.5	92.5	65.4	89.4	63.1	8100	92.5
2000	9556.8	1093.0	99.3	66.9	99.3	66.7	99.5	64.6	8722	99.3
2001	8524.4	1093.0	93.1	67.9	93.1	67.8	89.0	65.5	8153	93.1
2002	9647.4	1093.0	99.8	69.1	99.8	68.9	100.8	66.8	8740	99.8
2003	8937.8	1112.0	92.4	69.9	92.4	69.8	92.9	67.7	8089	92.3
2004	9989.1	1112.0	100.0	71.0	100.0	70.8	102.3	69.0	8784	100.0
2005	8848.9	1112.0	92.5	71.7	92.5	71.6	90.8	69.7	8105	92.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				8	381	4
B. Refuelling without a maintenance					19	
C. Inspection, maintenance or repair combined with refuelling	653			1425		
D. Inspection, maintenance or repair without refuelling				100		
E. Testing of plant systems or components				18	1	
H. Nuclear regulatory requirements					206	7
J. Grid failure or grid unavailability					11	2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				25	0	4
Subtotal	653	0	0	1576	618	17
Total	653			2211		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		28
13. Reactor Auxiliary Systems		12
14. Safety Systems		47
15. Reactor Cooling Systems		118
31. Turbine and auxiliaries		51
32. Feedwater and Main Steam System		49
33. Circulating Water System		2
41. Main Generator Systems		21
42. Electrical Power Supply Systems		56
Total	0	384

US-440 PERRY-1**Operator:** FENOC (FIRST ENERGY NUCLEAR OPERATING CO.)**Contractor:** GE (GENERAL ELECTRIC CO.)**1. Station Details**

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1235.0 MW(e)

Design Net Capacity: 1205.0 MW(e)

Design Discharge Burnup: 7614 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7667.5 GW(e).h

Energy Availability Factor: 72.7%

Load Factor: 70.9%

Operating Factor: 72.6%

Energy Unavailability Factor: 27.3%

Total Off-line Time: 2398 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	121.6	549.0	0.0	0.0	640.6	889.0	912.2	910.5	890.9	912.8	902.6	938.2	7667.5
EAF (%)	16.2	75.0	0.0	0.0	81.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	72.7
UCF (%)	16.2	75.0	0.0	0.0	81.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	72.7
LF (%)	13.2	66.2	0.0	0.0	69.7	100.0	99.3	99.1	100.2	99.2	101.5	102.1	70.9
OF (%)	16.3	74.9	0.0	0.0	80.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	72.6
EUF (%)	83.8	25.0	100.0	100.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3
PUF (%)	0.0	25.0	100.0	100.0	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.2
UCLF (%)	83.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Oct 1974 **Lifetime Generation:** 142289.7 GW(e).h

Date of First Criticality: 06 Jun 1986 **Cumulative Energy Availability Factor:** 78.4%

Date of Grid Connection: 19 Dec 1986 **Cumulative Load Factor:** 76.1%

Date of Commercial Operation: 18 Nov 1987 **Cumulative Unit Capability Factor:** 78.4%

Cumulative Energy Unavailability Factor: 21.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987			Data not provided							
1988	7233.8	1205.0	76.3	76.3	76.3	76.3	68.4	68.4	6664	75.9
1989	5357.6	1141.0	53.4	65.2	53.4	65.2	53.6	61.2	4776	54.5
1990	6638.9	1141.0	65.3	65.2	65.3	65.2	66.4	62.9	5723	65.3
1991	8975.7	1166.0	90.7	71.6	90.7	71.6	87.9	69.2	7949	90.7
1992	7168.6	1166.0	72.6	71.8	72.6	71.8	70.0	69.3	6383	72.7
1993	3973.2	1166.0	43.9	67.2	43.9	67.2	38.9	64.3	3853	44.0
1994	4591.9	1166.0	47.3	64.3	47.3	64.3	45.0	61.5	4151	47.4
1995	9112.1	1166.0	93.4	67.9	93.4	67.9	89.2	65.0	8174	93.3
1996	7482.0	1160.0	75.9	68.8	75.9	68.8	73.2	65.9	6673	76.0
1997	8151.8	1160.0	81.9	70.1	81.9	70.1	80.2	67.3	7178	81.9
1998	10188.9	1160.0	99.1	72.8	99.1	72.8	100.3	70.3	8684	99.1
1999	9124.9	1160.0	89.6	74.2	89.6	74.2	89.8	71.9	7850	89.6
2000	10085.7	1223.0	96.9	76.0	96.9	76.0	96.4	73.8	8506	96.8
2001	7781.8	1241.0	77.9	76.1	77.9	76.1	71.8	73.7	6708	76.6
2002	9974.8	1235.0	93.6	77.3	93.6	77.3	92.2	75.0	8196	93.6
2003	8553.2	1235.0	82.4	77.7	82.4	77.7	79.1	75.3	7217	82.4
2004	10227.3	1235.0	95.4	78.7	95.4	78.7	94.3	76.4	8378	95.4
2005	7667.5	1235.0	72.7	78.4	72.7	78.4	70.9	76.1	6363	72.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		623			450	
B. Refuelling without a maintenance					20	
C. Inspection, maintenance or repair combined with refuelling	1772			1062		
D. Inspection, maintenance or repair without refuelling				220		
E. Testing of plant systems or components				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					9	
Z. Others					9	
Subtotal	1772	623	0	1282	488	0
Total		2395			1770	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		10
13. Reactor Auxiliary Systems		18
14. Safety Systems		0
15. Reactor Cooling Systems	623	52
31. Turbine and auxiliaries		72
32. Feedwater and Main Steam System		0
33. Circulating Water System		13
35. All other I&C Systems		9
41. Main Generator Systems		38
42. Electrical Power Supply Systems		68
XX. Miscellaneous Systems		136
Total	623	416

US-293 PILGRIM-1

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 685.0 MW(e)
Design Net Capacity: 655.0 MW(e)
Design Discharge Burnup: 25000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5474.0 GW(e).h
Energy Availability Factor: 93.2%
Load Factor: 91.2%
Operating Factor: 93.2%
Energy Unavailability Factor: 6.8%
Total Off-line Time: 595 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	507.6	454.0	495.5	242.6	291.7	488.6	506.7	502.7	491.3	495.9	486.6	511.0	5474.0
EAF (%)	100.0	100.0	100.0	56.7	62.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.2
UCF (%)	100.0	100.0	100.0	56.7	62.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.2
LF (%)	99.6	98.6	97.2	49.2	57.2	99.1	99.4	98.6	99.6	97.2	98.7	100.3	91.2
OF (%)	100.0	100.0	100.0	56.7	62.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.2
EUF (%)	0.0	0.0	0.0	43.3	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
PUF (%)	0.0	0.0	0.0	43.3	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Aug 1968
Date of First Criticality: 16 Jun 1972
Date of Grid Connection: 19 Jul 1972
Date of Commercial Operation: 01 Dec 1972

Lifetime Generation: 123672.6 GW(e).h
Cumulative Energy Availability Factor: 67.6%
Cumulative Load Factor: 63.4%
Cumulative Unit Capability Factor: 67.9%
Cumulative Energy Unavailability Factor: 32.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	304.5	687.0	100.0	100.0	100.0	100.0	59.6	59.6	511	68.7
1973	4074.2	655.0	88.1	89.1	88.1	89.1	71.0	70.1	7574	86.5
1974	1973.1	670.0	39.2	64.9	39.2	64.9	33.6	52.4	3435	39.2
1975	2587.3	668.0	44.1	58.1	44.1	58.1	44.2	49.7	6239	71.2
1976	2415.5	665.0	41.1	54.0	41.1	54.0	41.4	47.7	5330	60.7
1977	2652.2	670.0	45.2	52.2	45.2	52.2	45.2	47.2	5379	61.4
1978	4376.7	669.0	74.8	55.9	74.8	55.9	74.7	51.7	7276	83.1
1979	4844.6	670.0	82.5	59.7	82.5	59.7	82.5	56.1	7828	89.4
1980	3044.1	670.0	56.5	59.3	56.5	59.3	51.7	55.5	4952	56.4
1981	3444.1	670.0	66.0	60.0	66.0	60.0	58.7	55.9	5767	65.8
1982	3287.1	670.0	64.1	60.4	64.1	60.4	56.0	55.9	5597	63.9
1983	4711.9	670.0	87.3	62.9	87.3	62.9	80.3	58.1	7640	87.2
1984	3.5	663.0	1.4	57.8	1.4	57.8	0.1	53.3	34	0.4
1985	4951.0	670.0	93.3	60.5	91.5	60.3	84.6	55.7	8013	91.5
1986	1027.5	670.0	18.9	57.5	18.9	57.4	17.5	53.0	1646	18.8
1987	0.0	670.0	0.0	53.7	0.0	53.6	0.0	49.4	0	0.0
1988	0.0	670.0	0.0	50.3	0.0	50.2	0.0	46.4	0	0.0
1989	1707.8	670.0	56.3	50.7	56.3	50.6	29.1	45.3	4919	56.2
1990	4243.2	670.0	77.5	52.2	77.5	52.1	72.3	46.8	6784	77.4
1991	3424.5	670.0	69.9	53.1	63.7	52.7	58.3	47.4	5572	63.6
1992	4742.0	670.0	84.3	54.7	84.3	54.3	80.6	49.1	7400	84.2
1993	4340.8	670.0	79.1	55.8	78.6	55.4	74.0	50.3	6880	78.5
1994	3824.1	670.0	69.4	56.4	69.4	56.1	65.2	51.0	6069	69.3
1995	4485.8	670.0	79.5	57.4	79.5	57.1	76.4	52.1	6962	79.5
1996	5324.3	670.0	95.0	59.0	95.0	58.7	90.5	53.7	8345	95.0
1997	4310.4	670.0	78.1	59.8	78.1	59.4	73.4	54.4	6840	78.1
1998	5698.4	670.0	100.0	61.3	100.0	61.0	97.1	56.1	8760	100.0
1999	4473.3	670.0	81.6	62.1	81.6	61.7	76.2	56.8	7141	81.5
2000	5512.3	670.0	96.3	63.3	96.3	63.0	93.7	58.1	8454	96.2
2001	5144.0	653.0	90.0	64.2	90.0	63.9	89.0	59.2	7884	90.0
2002	5769.1	653.0	100.0	65.3	100.0	65.1	100.9	60.5	8760	100.0
2003	4977.2	684.0	85.8	66.0	85.8	65.7	84.7	61.3	7548	86.2
2004	5939.3	684.0	99.3	67.1	99.3	66.8	98.9	62.5	8721	99.3
2005	5474.0	685.0	93.2	67.9	93.2	67.6	91.2	63.4	8166	93.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					624	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	592			1449	2	
D. Inspection, maintenance or repair without refuelling				159	0	
E. Testing of plant systems or components				57	1	
F. Major back-fitting, refurbishment or upgrading activities with refuelling					0	
H. Nuclear regulatory requirements				44	5	157
J. Grid failure or grid unavailability						22
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					57	5
Subtotal	592	0	0	1709	702	184
Total	592			2595		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		6
12. Reactor I&C Systems		35
13. Reactor Auxiliary Systems		113
14. Safety Systems		13
15. Reactor Cooling Systems		157
31. Turbine and auxiliaries		65
32. Feedwater and Main Steam System		57
35. All other I&C Systems		2
41. Main Generator Systems		47
42. Electrical Power Supply Systems		64
XX. Miscellaneous Systems		11
Total	0	570

US-266 POINT BEACH-1

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 512.0 MW(e)
Design Net Capacity: 497.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3641.0 GW(e).h
Energy Availability Factor: 82.6%
Load Factor: 81.2%
Operating Factor: 82.6%
Energy Unavailability Factor: 17.4%
Total Off-line Time: 1528 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	381.1	342.9	380.1	368.5	378.9	366.7	373.8	373.0	278.0	0.0	63.2	334.9	3641.0
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	76.7	0.0	22.4	92.6	82.6
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	76.7	0.0	22.4	92.6	82.6
LF (%)	100.0	99.7	99.8	100.0	99.5	99.5	98.1	97.9	75.4	0.0	17.1	87.9	81.2
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	76.9	0.0	22.1	92.5	82.6
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	100.0	77.6	7.4	17.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.3	100.0	77.6	0.0	16.8
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Jul 1967	Lifetime Generation:	117521.8 GW(e).h
Date of First Criticality:	02 Nov 1970	Cumulative Energy Availability Factor:	82.1%
Date of Grid Connection:	06 Nov 1970	Cumulative Load Factor:	77.1%
Date of Commercial Operation:	21 Dec 1970	Cumulative Unit Capability Factor:	82.5%
		Cumulative Energy Unavailability Factor:	17.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1970	0.0	523.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1971	3446.2	524.0	100.0	100.0	100.0	100.0	75.1	69.2	7699	87.9
1972	3085.5	524.0	100.0	100.0	100.0	100.0	67.0	68.2	6349	72.3
1973	2742.3	497.0	67.6	89.9	67.6	89.9	63.0	66.5	6867	78.4
1974	3144.3	497.0	81.4	87.9	81.4	87.9	72.2	67.9	7136	81.5
1975	2924.9	480.0	69.5	84.4	69.5	84.4	69.6	68.2	6297	71.9
1976	3392.5	492.0	78.4	83.5	78.4	83.5	78.5	69.9	7239	82.4
1977	3687.1	495.0	85.1	83.7	85.1	83.7	85.0	72.0	7733	88.3
1978	3794.5	495.0	87.5	84.2	87.5	84.2	87.5	73.9	7864	89.8
1979	3059.6	495.0	70.6	82.7	70.6	82.7	70.6	73.5	6455	73.7
1980	2479.3	495.0	91.0	83.5	77.0	82.1	57.0	71.9	6739	76.7
1981	2614.9	495.0	78.3	83.0	78.3	81.8	60.3	70.9	6834	78.0
1982	2701.7	495.0	81.5	82.9	81.5	81.8	62.3	70.2	7134	81.4
1983	2384.9	495.0	74.3	82.3	74.3	81.2	55.0	69.0	6498	74.2
1984	3109.2	485.0	72.6	81.6	72.6	80.6	73.0	69.3	6379	72.6
1985	3354.2	485.0	78.6	81.4	78.6	80.5	78.9	69.9	6917	79.0
1986	3770.1	485.0	88.7	81.8	88.7	81.0	88.7	71.0	7786	88.9
1987	3567.1	485.0	83.6	81.9	83.6	81.1	84.0	71.8	7348	83.9
1988	3831.0	485.0	88.5	82.3	88.5	81.5	89.9	72.8	7787	88.6
1989	3606.2	485.0	87.8	82.6	87.8	81.8	84.9	73.4	7706	88.0
1990	3531.7	485.0	83.8	82.6	83.8	81.9	83.1	73.9	7362	84.0
1991	3628.7	485.0	85.7	82.8	85.7	82.1	85.4	74.4	7524	85.9
1992	3605.6	485.0	84.1	82.8	84.1	82.2	84.6	74.9	7409	84.3
1993	3804.8	485.0	88.8	83.1	88.8	82.5	89.6	75.5	7799	89.0
1994	3905.1	485.0	92.0	83.5	92.0	82.9	91.9	76.2	8071	92.1
1995	3792.4	485.0	88.5	83.7	88.5	83.1	89.3	76.7	7768	88.7
1996	4003.3	485.0	93.0	84.0	93.0	83.5	94.0	77.3	8173	93.0
1997	853.5	485.0	21.3	81.7	21.3	81.2	20.1	75.2	1872	21.4
1998	2584.2	485.0	62.7	81.1	62.7	80.6	60.8	74.7	5489	62.7
1999	3489.3	510.0	80.0	81.0	80.0	80.5	81.4	75.0	7070	80.7
2000	4134.6	510.0	96.1	81.5	95.6	81.1	92.3	75.6	8391	95.5
2001	3702.1	510.0	87.0	81.7	87.0	81.3	82.9	75.8	7611	86.9
2002	3975.8	510.0	91.0	82.0	91.0	81.6	89.0	76.2	7964	90.9
2003	4343.0	516.0	97.5	82.5	97.5	82.1	96.2	76.9	8538	97.5
2004	3631.0	516.0	81.9	82.5	81.9	82.1	80.1	77.0	7186	81.8
2005	3641.0	512.0	82.6	82.5	82.6	82.1	81.2	77.1	7232	82.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		55			141	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	1471			1112		
D. Inspection, maintenance or repair without refuelling				62		
E. Testing of plant systems or components				2		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				1		
H. Nuclear regulatory requirements						35
J. Grid failure or grid unavailability						2
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	200	1
Subtotal	1471	55	0	1177	342	38
Total		1526			1557	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		0
15. Reactor Cooling Systems		10
16. Steam generation systems		67
31. Turbine and auxiliaries		18
32. Feedwater and Main Steam System		17
33. Circulating Water System	55	
41. Main Generator Systems		9
42. Electrical Power Supply Systems		3
Total	55	125

US-301 POINT BEACH-2

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 514.0 MW(e)
Design Net Capacity: 497.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3232.6 GW(e).h
Energy Availability Factor: 72.6%
Load Factor: 71.8%
Operating Factor: 72.5%
Energy Unavailability Factor: 27.4%
Total Off-line Time: 2406 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	385.6	344.1	385.8	10.8	0.0	0.0	214.6	380.8	368.5	384.6	373.8	384.1	3232.6
EAF (%)	100.0	100.0	100.0	3.3	0.0	0.0	67.3	100.0	100.0	100.0	100.0	100.0	72.6
UCF (%)	100.0	100.0	100.0	3.3	0.0	0.0	67.3	100.0	100.0	100.0	100.0	100.0	72.6
LF (%)	100.8	99.6	100.9	2.9	0.0	0.0	56.1	99.6	99.6	100.4	101.0	100.4	71.8
OF (%)	100.0	100.0	100.0	3.5	0.0	0.0	66.8	100.0	100.0	100.0	100.0	100.0	72.5
EUF (%)	0.0	0.0	0.0	96.7	100.0	100.0	32.7	0.0	0.0	0.0	0.0	0.0	27.4
PUF (%)	0.0	0.0	0.0	96.7	100.0	100.0	32.7	0.0	0.0	0.0	0.0	0.0	27.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jul 1968
Date of First Criticality: 30 May 1972
Date of Grid Connection: 02 Aug 1972
Date of Commercial Operation: 01 Oct 1972

Lifetime Generation: 116165.3 GW(e).h
Cumulative Energy Availability Factor: 83.6%
Cumulative Load Factor: 81.1%
Cumulative Unit Capability Factor: 83.6%
Cumulative Energy Unavailability Factor: 16.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	140.4	75.0	100.0	100.0	100.0	100.0	84.8	84.8	1799	81.5
1973	2991.0	497.0	80.2	80.9	80.2	80.9	68.7	69.3	8192	93.5
1974	3179.3	497.0	81.0	81.0	81.0	81.0	73.0	71.1	7100	81.1
1975	3741.4	485.0	87.9	83.2	87.9	83.2	88.1	76.6	8224	93.9
1976	3749.2	491.0	86.8	84.1	86.8	84.1	86.9	79.2	7959	90.6
1977	3622.3	495.0	83.5	84.0	83.5	84.0	83.5	80.0	7496	85.6
1978	3858.9	495.0	89.0	84.8	89.0	84.8	89.0	81.5	8039	91.8
1979	3707.5	495.0	85.5	84.9	85.5	84.9	85.5	82.1	7728	88.2
1980	3587.9	495.0	88.0	85.3	88.0	85.3	82.5	82.1	7569	86.2
1981	3720.3	495.0	89.9	85.8	89.9	85.8	85.8	82.5	7757	88.6
1982	3605.4	495.0	88.2	86.1	88.2	86.1	83.1	82.6	7595	86.7
1983	3016.3	495.0	74.5	85.0	74.5	85.0	69.6	81.4	6245	71.3
1984	3512.4	495.0	86.0	85.1	86.0	85.1	80.8	81.4	7405	84.3
1985	3603.1	485.0	86.8	85.2	86.8	85.2	84.8	81.6	7491	85.5
1986	3417.6	485.0	82.1	85.0	82.1	85.0	80.4	81.5	7186	82.0
1987	3606.1	485.0	85.9	85.1	85.5	85.0	84.9	81.8	7478	85.4
1988	3718.7	485.0	88.0	85.2	88.0	85.2	87.3	82.1	7626	86.8
1989	3485.1	485.0	82.9	85.1	82.9	85.1	82.0	82.1	7107	81.1
1990	3793.5	485.0	89.1	85.3	89.1	85.3	89.3	82.5	7713	88.0
1991	3689.2	485.0	87.6	85.4	87.6	85.4	86.8	82.7	7569	86.4
1992	3668.2	485.0	86.6	85.5	86.6	85.5	86.1	82.9	7492	85.3
1993	3844.5	485.0	90.9	85.8	90.9	85.7	90.5	83.2	7883	90.0
1994	3752.3	485.0	90.3	86.0	90.3	85.9	88.3	83.5	7827	89.3
1995	3386.0	485.0	83.4	85.9	83.4	85.8	79.7	83.3	7158	81.7
1996	2950.3	485.0	78.0	85.5	78.0	85.5	69.3	82.7	6653	75.7
1997	825.5	485.0	21.4	83.0	21.4	83.0	19.4	80.2	1788	20.4
1998	3123.8	485.0	75.5	82.7	75.5	82.7	73.5	80.0	6609	75.4
1999	3578.5	512.0	82.6	82.7	82.6	82.7	81.9	80.0	7195	82.1
2000	3527.4	512.0	80.9	82.6	80.9	82.6	78.4	80.0	7094	80.8
2001	4343.0	512.0	98.6	83.2	98.6	83.2	96.8	80.6	8631	98.5
2002	4004.3	512.0	90.7	83.5	90.7	83.4	89.3	80.9	7934	90.6
2003	3713.3	518.0	85.6	83.5	85.6	83.5	81.9	80.9	7469	85.3
2004	4384.9	518.0	97.5	84.0	97.5	84.0	96.4	81.4	8559	97.4
2005	3232.6	514.0	72.6	83.6	72.6	83.6	71.8	81.1	6355	72.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					122	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	2403			1097		
D. Inspection, maintenance or repair without refuelling				43	0	
E. Testing of plant systems or components				6		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				3		
H. Nuclear regulatory requirements					4	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	43	1
Z. Others					3	
Subtotal	2403	0	0	1149	173	1
Total	2403			1323		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		3
12. Reactor I&C Systems		33
14. Safety Systems		0
15. Reactor Cooling Systems		38
16. Steam generation systems		17
31. Turbine and auxiliaries		7
32. Feedwater and Main Steam System		11
42. Electrical Power Supply Systems		10
Total	0	119

US-282 PRAIRIE ISLAND-1

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 522.0 MW(e)
Design Net Capacity: 530.0 MW(e)
Design Discharge Burnup: 51000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4518.4 GW(e).h
Energy Availability Factor: 96.7%
Load Factor: 98.8%
Operating Factor: 96.6%
Energy Unavailability Factor: 3.3%
Total Off-line Time: 296 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	401.1	229.9	361.4	387.5	399.4	377.9	388.7	392.2	372.0	407.2	395.0	406.2	4518.4
EAF (%)	100.0	64.3	95.0	100.0	100.0	100.0	100.0	100.0	97.9	100.0	100.0	100.0	96.7
UCF (%)	100.0	64.3	95.0	100.0	100.0	100.0	100.0	100.0	97.9	100.0	100.0	100.0	96.7
LF (%)	103.3	65.5	93.1	103.1	102.8	100.5	100.1	101.0	99.0	104.7	105.1	104.6	98.8
OF (%)	100.0	64.4	94.6	99.9	100.0	100.0	100.0	100.0	97.8	100.0	100.0	100.0	96.6
EUF (%)	0.0	35.7	5.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	3.3
PUF (%)	0.0	35.7	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.9
UCLF (%)	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1968
Date of First Criticality: 01 Dec 1973
Date of Grid Connection: 04 Dec 1973
Date of Commercial Operation: 16 Dec 1973

Lifetime Generation: 121813.5 GW(e).h
Cumulative Energy Availability Factor: 85.6%
Cumulative Load Factor: 84.8%
Cumulative Unit Capability Factor: 85.6%
Cumulative Energy Unavailability Factor: 14.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	7.2	520.0	100.0	100.0	100.0	100.0	2.1	2.1	312	46.4
1974	1452.2	520.0	43.9	47.9	43.9	47.9	31.9	29.8	3848	43.9
1975	3694.2	520.0	81.2	63.9	81.2	63.9	81.1	54.5	7560	86.3
1976	3268.7	520.0	71.5	66.4	71.5	66.4	71.6	60.0	6801	77.4
1977	3714.5	511.0	82.9	70.4	82.9	70.4	83.0	65.6	7453	85.1
1978	3810.7	507.0	85.9	73.4	85.9	73.4	85.8	69.5	8012	91.5
1979	2910.9	503.0	65.8	72.2	65.8	72.2	66.1	68.9	6402	73.1
1980	3105.7	503.0	77.8	73.0	77.8	73.0	70.3	69.1	6863	78.1
1981	3838.6	503.0	88.9	74.9	88.9	74.9	87.1	71.3	7803	89.1
1982	3918.0	503.0	90.9	76.6	90.9	76.6	88.9	73.2	7960	90.9
1983	3888.9	503.0	87.2	77.7	87.2	77.7	88.3	74.7	7621	87.0
1984	4159.4	503.0	94.3	79.2	94.3	79.2	94.1	76.4	8285	94.3
1985	3678.5	503.0	83.4	79.5	83.4	79.5	83.5	77.0	7333	83.7
1986	3819.6	503.0	89.6	80.3	89.6	80.3	86.7	77.8	7870	89.8
1987	3590.3	503.0	82.2	80.4	82.2	80.4	81.5	78.0	7232	82.6
1988	3823.4	503.0	89.3	81.0	89.3	81.0	86.5	78.6	7800	88.8
1989	4392.3	503.0	99.7	82.2	99.7	82.2	99.7	79.9	8737	99.7
1990	3829.7	503.0	81.7	82.1	81.7	82.1	86.9	80.3	7764	88.6
1991	3987.1	503.0	90.5	82.6	90.5	82.6	90.1	80.8	7943	90.7
1992	3497.8	503.0	77.4	82.3	77.4	82.3	79.2	80.7	6844	77.9
1993	4378.0	513.0	96.8	83.0	96.8	83.0	98.9	81.6	8480	96.8
1994	3718.2	513.0	82.8	83.0	82.8	83.0	82.7	81.7	7258	82.9
1995	4519.0	513.0	99.9	83.8	99.9	83.8	100.6	82.6	8752	99.9
1996	3741.6	513.0	92.9	84.2	92.2	84.2	83.0	82.6	7327	83.4
1997	3522.8	513.0	79.5	84.0	79.5	84.0	78.4	82.4	6965	79.5
1998	4209.2	526.0	90.8	84.3	90.8	84.3	93.5	82.8	7948	90.7
1999	4068.8	522.0	87.2	84.4	87.2	84.4	89.0	83.1	7643	87.2
2000	4536.5	522.0	96.7	84.9	96.7	84.8	98.9	83.7	8499	96.8
2001	3641.7	522.0	78.8	84.6	78.8	84.6	79.6	83.5	6890	78.7
2002	4373.2	522.0	94.4	85.0	94.4	85.0	95.6	84.0	8268	94.4
2003	4596.3	522.0	98.4	85.4	98.4	85.4	101.0	84.5	8619	98.4
2004	3602.1	522.0	79.9	85.3	79.9	85.2	78.6	84.3	7017	79.9
2005	4518.4	522.0	96.7	85.6	96.7	85.6	98.8	84.8	8465	96.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		37			319	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling				694		
D. Inspection, maintenance or repair without refuelling	255			81		
E. Testing of plant systems or components				7	1	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					28	1
Subtotal	255	37	0	782	350	1
Total		292			1133	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		16
12. Reactor I&C Systems		31
14. Safety Systems		11
15. Reactor Cooling Systems		8
16. Steam generation systems		42
31. Turbine and auxiliaries	37	135
32. Feedwater and Main Steam System		38
35. All other I&C Systems		9
41. Main Generator Systems		1
42. Electrical Power Supply Systems		9
XX. Miscellaneous Systems		0
Total	37	300

US-306 PRAIRIE ISLAND-2

Operator: NUCMAN (NUCLEAR MANAGEMENT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 522.0 MW(e)
Design Net Capacity: 530.0 MW(e)
Design Discharge Burnup: 51000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3848.6 GW(e).h
Energy Availability Factor: 83.3%
Load Factor: 84.2%
Operating Factor: 83.3%
Energy Unavailability Factor: 16.7%
Total Off-line Time: 1465 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	402.6	360.9	363.6	145.9	0.0	227.5	384.5	387.6	380.8	402.1	388.3	404.7	3848.6
EAF (%)	100.0	100.0	93.5	38.5	0.0	68.2	100.0	100.0	100.0	100.0	100.0	100.0	83.3
UCF (%)	100.0	100.0	93.6	38.5	0.0	68.2	100.0	100.0	100.0	100.0	100.0	100.0	83.3
LF (%)	103.7	102.9	93.6	38.8	0.0	60.5	99.0	99.8	101.3	103.4	103.3	104.2	84.2
OF (%)	100.0	100.0	94.9	40.3	0.0	64.9	100.0	100.0	100.0	100.0	100.0	100.0	83.3
EUF (%)	0.0	0.0	6.5	61.5	100.0	31.8	0.0	0.0	0.0	0.0	0.0	0.0	16.7
PUF (%)	0.0	0.0	0.0	0.0	83.9	31.8	0.0	0.0	0.0	0.0	0.0	0.0	9.7
UCLF (%)	0.0	0.0	6.5	61.5	16.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 May 1969	Lifetime Generation:	120920.7 GW(e).h
Date of First Criticality:	17 Dec 1974	Cumulative Energy Availability Factor:	87.6%
Date of Grid Connection:	21 Dec 1974	Cumulative Load Factor:	87.4%
Date of Commercial Operation:	21 Dec 1974	Cumulative Unit Capability Factor:	87.6%
		Cumulative Energy Unavailability Factor:	12.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	7.4	520.0	100.0	100.0	100.0	100.0	5.6	5.6	104	41.3
1975	3176.2	520.0	69.9	70.7	69.9	70.7	69.9	68.1	7035	80.5
1976	2660.6	520.0	58.2	64.6	58.2	64.6	58.2	63.2	6657	75.8
1977	3882.3	511.0	86.7	71.8	86.7	71.8	86.7	70.9	7807	89.1
1978	3924.4	507.0	88.2	75.8	88.2	75.8	88.4	75.2	8126	92.8
1979	4193.0	500.0	94.6	79.4	94.6	79.4	95.7	79.2	8661	98.9
1980	3468.7	500.0	81.5	79.8	81.4	79.8	79.0	79.1	7167	81.6
1981	3092.9	500.0	71.4	78.6	71.4	78.6	70.6	77.9	6292	71.8
1982	3857.7	500.0	90.0	80.0	89.8	80.0	88.1	79.2	7844	89.5
1983	3716.3	500.0	86.5	80.7	86.5	80.7	84.8	79.8	7574	86.5
1984	3906.0	500.0	89.2	81.6	89.2	81.5	88.9	80.7	7830	89.1
1985	3612.5	500.0	92.9	82.6	92.9	82.6	82.5	80.9	7378	84.2
1986	3854.0	500.0	90.6	83.2	90.6	83.2	88.0	81.5	7930	90.5
1987	4462.2	500.0	100.0	84.5	100.0	84.5	101.9	83.0	8760	100.0
1988	3886.2	500.0	88.2	84.8	88.2	84.8	88.5	83.4	7773	88.5
1989	3887.2	500.0	96.9	85.6	96.9	85.6	88.7	83.7	7798	89.0
1990	3803.7	500.0	83.3	85.4	83.3	85.4	86.8	83.9	7602	86.8
1991	4480.4	500.0	100.0	86.3	100.0	86.3	101.8	85.0	8760	100.0
1992	3223.5	500.0	73.5	85.6	73.5	85.6	73.4	84.3	6516	74.2
1993	3746.2	512.0	83.5	85.5	83.5	85.5	85.0	84.4	7338	83.8
1994	4553.0	512.0	99.7	86.2	99.7	86.2	101.5	85.3	8734	99.7
1995	3968.2	512.0	87.5	86.3	87.5	86.2	88.5	85.4	7666	87.5
1996	4485.1	512.0	99.2	86.9	98.6	86.8	99.7	86.1	8653	98.5
1997	3642.9	512.0	82.0	86.6	82.0	86.6	81.2	85.9	7180	82.0
1998	3333.7	512.0	74.8	86.1	74.8	86.1	74.3	85.4	6555	74.8
1999	4597.4	522.0	99.2	86.7	99.2	86.6	100.5	86.0	8690	99.2
2000	4182.3	522.0	89.0	86.8	89.0	86.7	91.2	86.2	7820	89.0
2001	4271.0	522.0	91.7	87.0	91.7	86.9	93.4	86.5	8031	91.7
2002	4296.0	522.0	92.4	87.2	92.4	87.1	93.9	86.7	8082	92.3
2003	4241.0	522.0	92.0	87.3	92.0	87.3	92.7	87.0	8058	92.0
2004	4660.3	522.0	99.5	87.7	99.5	87.7	101.6	87.5	8737	99.5
2005	3848.6	522.0	83.3	87.6	83.3	87.6	84.2	87.4	7296	83.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		610			209	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	852			587		
D. Inspection, maintenance or repair without refuelling				96		
E. Testing of plant systems or components				5		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					18	1
Subtotal	852	610	0	688	228	1
Total		1462			917	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		47
13. Reactor Auxiliary Systems	106	0
14. Safety Systems		3
15. Reactor Cooling Systems		40
16. Steam generation systems		6
31. Turbine and auxiliaries		79
32. Feedwater and Main Steam System		3
33. Circulating Water System		2
35. All other I&C Systems		0
41. Main Generator Systems		7
42. Electrical Power Supply Systems	504	5
Total	610	192

US-254 QUAD CITIES-1

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 864.0 MW(e)
Design Net Capacity: 789.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6281.1 GW(e).h
Energy Availability Factor: 89.9%
Load Factor: 83.0%
Operating Factor: 89.9%
Energy Unavailability Factor: 10.1%
Total Off-line Time: 886 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	554.2	500.4	355.3	188.0	492.2	458.9	554.5	635.9	624.6	645.1	627.2	644.8	6281.1
EAF (%)	100.0	100.0	64.5	38.1	87.1	89.3	100.0	100.0	100.0	100.0	100.0	100.0	89.9
UCF (%)	100.0	100.0	64.5	38.1	87.1	89.3	100.0	100.0	100.0	100.0	100.0	100.0	89.9
LF (%)	86.2	86.2	55.3	30.2	76.6	73.8	86.3	98.9	100.4	100.2	100.8	100.3	83.0
OF (%)	100.0	100.0	64.5	37.8	87.1	89.2	100.0	100.0	100.0	100.0	100.0	100.0	89.9
EUF (%)	0.0	0.0	35.5	61.9	12.9	10.7	0.0	0.0	0.0	0.0	0.0	0.0	10.1
PUF (%)	0.0	0.0	35.5	60.5	12.9	4.6	0.0	0.0	0.0	0.0	0.0	0.0	9.5
UCLF (%)	0.0	0.0	0.0	1.4	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Feb 1967	Lifetime Generation:	159863.5 GW(e).h
Date of First Criticality:	18 Oct 1971	Cumulative Energy Availability Factor:	75.2%
Date of Grid Connection:	12 Apr 1972	Cumulative Load Factor:	69.7%
Date of Commercial Operation:	18 Feb 1973	Cumulative Unit Capability Factor:	75.2%
		Cumulative Energy Unavailability Factor:	24.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	4451.0	800.0	87.0	87.0	87.0	87.0	69.4	69.4	6667	83.2
1974	3464.1	800.0	61.4	73.6	61.4	73.6	49.4	59.0	5365	61.2
1975	4413.4	800.0	61.0	69.3	61.0	69.3	63.0	60.3	7531	86.0
1976	3401.7	769.0	50.4	64.6	50.4	64.6	50.4	57.9	5699	64.9
1977	3527.4	769.0	52.4	62.2	52.4	62.2	52.4	56.8	6176	70.5
1978	4782.0	769.0	71.0	63.7	71.0	63.7	71.0	59.1	8315	94.9
1979	4786.5	769.0	71.1	64.7	71.1	64.7	71.1	60.8	7096	81.0
1980	3468.8	769.0	67.4	65.1	66.7	65.0	51.4	59.6	5840	66.5
1981	5726.8	769.0	94.3	68.3	94.3	68.2	85.0	62.4	8244	94.1
1982	3258.0	769.0	68.5	68.3	68.5	68.2	48.4	61.0	5951	67.9
1983	5776.4	769.0	94.7	70.7	94.7	70.6	85.7	63.3	8258	94.3
1984	3358.5	769.0	53.4	69.3	53.4	69.2	49.7	62.2	4687	53.4
1985	6072.3	769.0	94.1	71.2	94.1	71.1	90.1	64.3	8242	94.1
1986	4426.2	769.0	68.9	71.0	68.9	70.9	65.7	64.4	6035	68.9
1987	4456.1	769.0	70.1	70.9	70.1	70.9	66.1	64.5	6141	70.1
1988	5662.0	769.0	93.4	72.3	93.4	72.3	83.8	65.7	8199	93.3
1989	4280.4	769.0	73.4	72.4	73.4	72.4	63.5	65.6	6428	73.4
1990	5345.6	769.0	83.1	73.0	83.1	73.0	79.4	66.4	7276	83.1
1991	3549.5	769.0	56.6	72.1	55.8	72.1	52.7	65.6	4882	55.7
1992	4166.1	769.0	70.1	72.0	70.1	72.0	61.7	65.4	6158	70.1
1993	5042.5	769.0	78.8	72.4	78.8	72.3	74.9	65.9	6902	78.8
1994	1670.2	769.0	28.9	70.4	28.9	70.3	24.8	64.0	2526	28.8
1995	5886.2	769.0	90.6	71.3	90.6	71.2	87.4	65.0	7934	90.6
1996	2680.6	769.0	42.9	70.1	42.9	70.0	39.7	64.0	3769	42.9
1997	5565.5	769.0	88.7	70.8	88.7	70.8	82.6	64.7	7764	88.6
1998	3142.9	769.0	49.1	70.0	49.1	69.9	46.7	64.0	4299	49.1
1999	6337.6	769.0	93.7	70.9	93.7	70.8	94.1	65.1	8210	93.7
2000	6168.1	769.0	93.8	71.7	93.8	71.6	91.3	66.1	8242	93.8
2001	6710.9	769.0	99.2	72.6	99.2	72.6	99.6	67.2	8691	99.2
2002	5709.5	855.0	86.6	73.1	86.6	73.1	84.0	67.8	7564	86.3
2003	6810.2	855.0	92.4	73.8	92.4	73.7	90.9	68.6	8013	91.5
2004	6502.8	855.0	100.0	74.7	100.0	74.7	86.6	69.2	8784	100.0
2005	6281.1	864.0	89.9	75.2	89.9	75.2	83.0	69.7	7875	89.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		54			416	
B. Refuelling without a maintenance					75	
C. Inspection, maintenance or repair combined with refuelling	697			1150		
D. Inspection, maintenance or repair without refuelling	129			157	4	
E. Testing of plant systems or components	2			8	8	
H. Nuclear regulatory requirements					6	1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	48	2
Subtotal	828	54	0	1315	557	3
Total	882			1875		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		23
13. Reactor Auxiliary Systems		3
14. Safety Systems		8
15. Reactor Cooling Systems		111
31. Turbine and auxiliaries	54	76
32. Feedwater and Main Steam System		22
41. Main Generator Systems		18
42. Electrical Power Supply Systems		38
XX. Miscellaneous Systems		12
Total	54	311

US-265 QUAD CITIES-2

Operator: EXELON (Exelon Nuclear Co.)
Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power
at the beginning of 2005: 864.0 MW(e)
Design Net Capacity: 789.0 MW(e)
Design Discharge Burnup: 30000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7036.9 GW(e).h
Energy Availability Factor: 97.4%
Load Factor: 93.0%
Operating Factor: 97.4%
Energy Unavailability Factor: 2.6%
Total Off-line Time: 228 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	572.5	517.4	572.2	551.0	427.2	612.7	645.6	647.6	624.1	631.2	628.0	607.3	7036.9
EAF (%)	100.0	100.0	100.0	100.0	74.7	100.0	100.0	100.0	100.0	100.0	100.0	94.9	97.4
UCF (%)	100.0	100.0	100.0	100.0	74.7	100.0	100.0	100.0	100.0	100.0	100.0	94.9	97.4
LF (%)	89.1	89.1	89.0	88.6	66.5	98.5	100.4	100.7	100.3	98.1	101.0	94.5	93.0
OF (%)	100.0	100.0	100.0	99.9	74.6	100.0	100.0	100.0	100.0	100.0	100.0	94.9	97.4
EUF (%)	0.0	0.0	0.0	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	5.1	2.6
PUF (%)	0.0	0.0	0.0	0.0	25.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Feb 1967
Date of First Criticality: 26 Apr 1972
Date of Grid Connection: 23 May 1972
Date of Commercial Operation: 10 Mar 1973

Lifetime Generation: 155551.4 GW(e).h
Cumulative Energy Availability Factor: 73.4%
Cumulative Load Factor: 68.0%
Cumulative Unit Capability Factor: 74.3%
Cumulative Energy Unavailability Factor: 26.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	4392.2	800.0	86.4	86.4	86.4	86.4	74.8	74.8	6238	84.9
1974	4643.8	800.0	82.6	84.3	82.6	84.3	66.3	70.1	7232	82.6
1975	2490.9	798.0	35.7	67.2	35.7	67.2	35.6	58.0	4555	52.0
1976	4320.0	769.0	64.0	66.4	64.0	66.4	64.0	59.5	7143	81.3
1977	4369.3	769.0	64.9	66.1	64.9	66.1	64.9	60.6	7118	81.3
1978	4429.1	769.0	65.7	66.0	65.7	66.0	65.7	61.5	7022	80.2
1979	3993.6	769.0	59.3	65.1	59.3	65.1	59.3	61.1	7686	87.7
1980	3651.6	769.0	62.8	64.8	62.5	64.7	54.1	60.3	5486	62.5
1981	3770.7	769.0	68.1	65.2	68.1	65.1	56.0	59.8	5957	68.0
1982	5062.3	769.0	84.0	67.0	84.0	67.0	75.1	61.3	7343	83.8
1983	3158.5	769.0	64.2	66.8	64.2	66.8	46.9	60.0	5620	64.2
1984	4984.4	769.0	77.9	67.7	77.9	67.7	73.8	61.2	6837	77.8
1985	4560.7	769.0	71.3	68.0	71.3	68.0	67.7	61.7	6247	71.3
1986	4728.0	769.0	74.2	68.4	74.2	68.4	70.2	62.3	6399	73.0
1987	4953.0	769.0	78.1	69.1	78.1	69.1	73.5	63.0	6832	78.0
1988	4178.9	769.0	70.5	69.2	70.5	69.2	61.9	63.0	6193	70.5
1989	5743.1	769.0	95.5	70.7	95.5	70.7	85.3	64.3	8363	95.5
1990	4373.6	769.0	70.4	70.7	70.4	70.7	64.9	64.3	6186	70.6
1991	5285.2	769.0	88.3	71.6	88.3	71.6	78.5	65.1	7731	88.3
1992	3464.2	769.0	64.0	71.2	64.0	71.2	51.3	64.4	5621	64.0
1993	3111.8	769.0	51.8	70.3	51.8	70.3	46.2	63.5	4538	51.8
1994	4013.3	769.0	65.7	70.1	65.7	70.1	59.6	63.3	5745	65.6
1995	2497.0	769.0	45.3	69.0	45.3	69.0	37.1	62.2	3966	45.3
1996	4666.8	769.0	98.8	70.3	72.3	69.2	69.1	62.5	6348	72.3
1997	2627.7	769.0	42.3	69.2	42.3	68.1	39.0	61.5	3718	42.4
1998	3819.6	769.0	59.0	68.8	58.2	67.7	56.7	61.3	5095	58.2
1999	6596.7	769.0	97.5	69.8	97.5	68.8	97.9	62.7	8537	97.5
2000	6220.6	769.0	92.9	70.7	92.9	69.7	92.1	63.7	8156	92.9
2001	6273.8	769.0	91.9	71.4	91.9	70.4	93.1	64.8	8058	92.0
2002	6556.8	855.0	90.4	72.1	90.4	71.2	89.8	65.7	7852	89.6
2003	6975.1	855.0	94.0	72.9	94.0	72.0	93.1	66.6	8181	93.4
2004	6179.4	855.0	90.5	73.5	90.5	72.6	82.3	67.2	7955	90.6
2005	7036.9	864.0	97.4	74.3	97.4	73.4	93.0	68.0	8533	97.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		37			537	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling				1039	66	
D. Inspection, maintenance or repair without refuelling	188			146		
E. Testing of plant systems or components				3	0	
H. Nuclear regulatory requirements					11	0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				103	72	70
Subtotal	188	37	0	1291	701	70
Total		225			2062	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		9
12. Reactor I&C Systems		13
13. Reactor Auxiliary Systems		4
14. Safety Systems		19
15. Reactor Cooling Systems		75
16. Steam generation systems		12
17. Safety I&C Systems (excluding reactor I&C)		8
21. Fuel Handling and Storage Facilities		20
31. Turbine and auxiliaries		93
32. Feedwater and Main Steam System		46
33. Circulating Water System		8
35. All other I&C Systems		1
41. Main Generator Systems		38
42. Electrical Power Supply Systems	37	76
XX. Miscellaneous Systems		49
Total	37	471

US-244 R.E. GINNA

Operator: CONST (CONSTELLATION NUCLEAR GROUP)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 498.0 MW(e)
Design Net Capacity: 470.0 MW(e)
Design Discharge Burnup: 39000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 3996.7 GW(e).h
Energy Availability Factor: 93.3%
Load Factor: 91.6%
Operating Factor: 93.2%
Energy Unavailability Factor: 6.7%
Total Off-line Time: 595 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	370.3	308.9	232.2	222.3	370.0	352.2	345.2	356.9	339.4	369.5	358.8	371.0	3996.7
EAF (%)	100.0	93.6	61.3	69.1	100.0	100.0	97.9	100.0	97.0	100.0	100.0	100.0	93.3
UCF (%)	100.0	93.6	61.3	69.1	100.0	100.0	97.9	100.0	97.0	100.0	100.0	100.0	93.3
LF (%)	99.9	92.3	62.7	62.0	99.9	98.2	93.2	96.3	94.6	99.6	100.1	100.1	91.6
OF (%)	100.0	93.6	63.8	66.0	100.0	100.0	97.8	100.0	96.9	100.0	100.0	100.0	93.2
EUF (%)	0.0	6.4	38.7	30.9	0.0	0.0	2.1	0.0	3.0	0.0	0.0	0.0	6.7
PUF (%)	0.0	0.0	38.7	30.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
UCLF (%)	0.0	6.4	0.0	0.1	0.0	0.0	2.1	0.0	3.0	0.0	0.0	0.0	0.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Apr 1966	Lifetime Generation:	119939.1 GW(e).h
Date of First Criticality:	08 Nov 1969	Cumulative Energy Availability Factor:	83.5%
Date of Grid Connection:	02 Dec 1969	Cumulative Load Factor:	80.5%
Date of Commercial Operation:	01 Jul 1970	Cumulative Unit Capability Factor:	83.5%
		Cumulative Energy Unavailability Factor:	16.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1970	1597.0	448.0	100.0	100.0	100.0	100.0	80.7	80.7	3868	87.6
1971	2871.8	493.0	100.0	100.0	100.0	100.0	66.5	71.0	6592	75.3
1972	2572.1	504.0	100.0	100.0	100.0	100.0	58.1	65.7	6029	68.6
1973	3398.8	490.0	95.0	98.6	95.0	98.6	79.2	69.5	8325	95.0
1974	2097.2	490.0	48.9	87.5	48.9	87.5	48.9	64.9	5465	62.4
1975	3041.1	470.0	73.4	85.0	73.4	85.0	73.9	66.5	6709	76.6
1976	2060.8	470.0	49.7	79.8	49.7	79.8	49.9	64.0	5113	58.2
1977	3028.5	470.0	73.6	79.0	73.6	79.0	73.6	65.3	7489	85.5
1978	3218.7	470.0	77.5	78.8	77.5	78.8	78.2	66.7	7058	80.6
1979	2960.5	470.0	71.3	78.0	71.3	78.0	71.9	67.3	6375	72.8
1980	3093.5	470.0	76.0	77.8	76.0	77.8	74.9	68.0	6673	76.0
1981	3322.5	470.0	82.2	78.2	82.2	78.2	80.7	69.1	7194	82.1
1982	2408.0	470.0	58.9	76.7	58.9	76.7	58.5	68.2	5150	58.8
1983	3040.1	470.0	74.9	76.5	74.9	76.5	73.8	68.7	6529	74.5
1984	3156.8	470.0	77.2	76.6	77.2	76.6	76.5	69.2	6779	77.2
1985	3620.3	470.0	87.9	77.3	87.9	77.3	87.9	70.4	7700	87.9
1986	3610.3	470.0	87.4	77.9	87.4	77.9	87.7	71.4	7659	87.4
1987	3797.7	470.0	91.3	78.7	91.3	78.7	92.2	72.6	7994	91.3
1988	3533.2	470.0	86.5	79.1	86.5	79.1	85.6	73.3	7592	86.4
1989	3073.5	470.0	75.0	78.9	75.0	78.9	74.6	73.4	6569	75.0
1990	3451.4	470.0	83.6	79.1	83.6	79.1	83.8	73.9	7325	83.6
1991	3483.3	470.0	86.0	79.4	86.0	79.4	84.6	74.4	7536	86.0
1992	3483.4	470.0	85.8	79.7	85.8	79.7	84.4	74.8	7536	85.8
1993	3499.4	470.0	85.7	80.0	85.7	80.0	85.0	75.2	7509	85.7
1994	3373.7	470.0	82.4	80.1	82.4	80.1	81.9	75.5	7219	82.4
1995	3638.6	470.0	88.8	80.4	88.8	80.4	88.4	76.0	7776	88.8
1996	2898.1	470.0	70.4	80.0	70.4	80.0	70.2	75.8	6175	70.3
1997	3894.7	480.0	91.7	80.5	91.7	80.5	92.6	76.4	8011	91.4
1998	4308.6	480.0	100.0	81.2	100.0	81.2	102.5	77.3	8760	100.0
1999	3534.1	480.0	85.3	81.3	85.3	81.3	84.0	77.6	7444	85.0
2000	3814.1	480.0	91.0	81.6	91.0	81.6	90.5	78.0	8001	91.1
2001	4286.3	480.0	100.0	82.2	100.0	82.2	101.9	78.8	8760	100.0
2002	3843.3	480.0	90.4	82.5	90.4	82.5	91.4	79.2	7951	90.8
2003	3868.6	480.0	90.1	82.7	90.1	82.7	92.0	79.5	7925	90.5
2004	4308.5	480.0	99.4	83.2	99.4	83.2	102.2	80.2	8733	99.4
2005	3996.7	498.0	93.3	83.5	93.3	83.5	91.6	80.5	8166	93.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1971 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		65			217	
B. Refuelling without a maintenance					2	
C. Inspection, maintenance or repair combined with refuelling	510			1154		
D. Inspection, maintenance or repair without refuelling				80	2	
E. Testing of plant systems or components				1	0	
H. Nuclear regulatory requirements					0	19
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					12	
L. Human factor related		15				
Subtotal	510	80	0	1235	233	19
Total		590			1487	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1971 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		16
13. Reactor Auxiliary Systems		2
14. Safety Systems		17
15. Reactor Cooling Systems		10
16. Steam generation systems		43
31. Turbine and auxiliaries	22	40
32. Feedwater and Main Steam System	42	37
33. Circulating Water System		5
35. All other I&C Systems		1
42. Electrical Power Supply Systems		19
Total	64	191

US-458 RIVER BEND-1

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 978.0 MW(e)

Design Net Capacity: 934.0 MW(e)

Design Discharge Burnup: 29600 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7822.5 GW(e).h

Energy Availability Factor: 93.2%

Load Factor: 91.3%

Operating Factor: 93.2%

Energy Unavailability Factor: 6.8%

Total Off-line Time: 599 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	689.2	420.9	578.3	708.1	711.9	512.1	662.8	708.4	683.7	716.8	707.5	722.8	7822.5
EAF (%)	95.2	67.7	85.3	100.0	100.0	73.3	94.5	100.0	100.0	100.0	100.0	100.0	93.2
UCF (%)	95.2	67.7	85.4	100.0	100.0	73.3	94.5	100.0	100.0	100.0	100.0	100.0	93.2
LF (%)	94.7	64.0	79.5	100.6	97.8	72.7	91.1	97.4	97.1	98.4	100.5	99.3	91.3
OF (%)	95.2	69.6	83.3	99.9	100.0	73.3	94.4	100.0	100.0	100.0	100.0	100.0	93.2
EUF (%)	4.8	32.3	14.7	0.0	0.0	26.7	5.5	0.0	0.0	0.0	0.0	0.0	6.8
PUF (%)	0.0	28.7	0.0	0.0	0.0	26.7	5.5	0.0	0.0	0.0	0.0	0.0	4.9
UCLF (%)	4.8	3.6	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Mar 1977 Lifetime Generation: 126895.1 GW(e).h

Date of First Criticality: 31 Oct 1985 Cumulative Energy Availability Factor: 80.7%

Date of Grid Connection: 03 Dec 1985 Cumulative Load Factor: 78.0%

Date of Commercial Operation: 16 Jun 1986 Cumulative Unit Capability Factor: 80.7%

 Cumulative Energy Unavailability Factor: 19.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1986	2310.4	936.0	54.1	54.1	54.1	54.1	48.0	48.0	2763	53.8
1987	4964.4	936.0	66.7	62.0	66.7	62.0	60.5	55.9	5836	66.6
1988	7249.0	936.0	92.8	73.9	92.8	73.9	88.2	68.4	8149	92.8
1989	4785.0	936.0	66.9	72.0	66.9	72.0	58.4	65.6	5853	66.8
1990	5592.6	936.0	75.8	72.8	75.8	72.8	68.2	66.2	6642	75.8
1991	6687.2	936.0	85.7	75.1	85.7	75.1	81.6	68.9	7507	85.7
1992	2762.7	936.0	36.5	69.3	36.5	69.3	33.6	63.6	3210	36.5
1993	5257.9	936.0	69.4	69.3	69.4	69.3	64.1	63.6	6076	69.4
1994	4886.2	936.0	62.3	68.5	62.3	68.5	59.6	63.2	5455	62.3
1995	7930.8	936.0	99.4	71.7	99.4	71.7	96.7	66.7	8704	99.4
1996	6860.3	936.0	84.2	72.9	84.2	72.9	83.4	68.2	7391	84.1
1997	6822.7	936.0	84.8	73.9	84.8	73.9	83.2	69.5	7427	84.8
1998	7833.5	936.0	95.9	75.7	95.9	75.7	95.5	71.6	8404	95.9
1999	5704.8	936.0	74.0	75.5	74.0	75.5	69.6	71.5	6476	73.9
2000	7352.7	936.0	88.8	76.4	88.8	76.4	89.4	72.7	7795	88.7
2001	7811.8	936.0	92.4	77.5	92.4	77.5	95.3	74.1	8120	92.7
2002	8472.4	966.0	97.9	78.7	97.9	78.7	100.1	75.7	8579	97.9
2003	7653.2	966.0	91.8	79.5	91.8	79.5	90.4	76.6	8050	91.9
2004	7427.4	966.0	88.2	80.0	88.2	80.0	87.5	77.2	7758	88.3
2005	7822.5	978.0	93.2	80.7	93.2	80.7	91.3	78.0	8162	93.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		169		6	380	
B. Refuelling without a maintenance					29	
C. Inspection, maintenance or repair combined with refuelling				885		
D. Inspection, maintenance or repair without refuelling	426			189	9	
E. Testing of plant systems or components				15	5	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				13	170	
Subtotal	426	169	0	1108	593	0
Total		595			1701	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		55
13. Reactor Auxiliary Systems		3
15. Reactor Cooling Systems		104
17. Safety I&C Systems (excluding reactor I&C)		13
31. Turbine and auxiliaries		55
32. Feedwater and Main Steam System	133	36
33. Circulating Water System		4
35. All other I&C Systems		12
41. Main Generator Systems	35	28
42. Electrical Power Supply Systems		36
XX. Miscellaneous Systems		6
Total	168	352

US-272 SALEM-1

Operator: PSEG (PUBLIC SERVICE ELECTRIC & GAS CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1111.0 MW(e)
Design Net Capacity: 1090.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9440.6 GW(e).h
Energy Availability Factor: 92.5%
Load Factor: 97.0%
Operating Factor: 92.5%
Energy Unavailability Factor: 7.5%
Total Off-line Time: 655 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	880.3	801.4	887.2	747.5	881.7	839.9	860.2	854.8	830.4	299.4	672.7	885.1	9440.6
EAF (%)	100.0	100.0	100.0	93.2	100.0	100.0	100.0	100.0	100.0	32.3	85.8	100.0	92.5
UCF (%)	100.0	100.0	100.0	93.2	100.0	100.0	100.0	100.0	100.0	32.3	85.8	100.0	92.5
LF (%)	106.5	107.3	107.3	93.4	106.7	105.0	104.1	103.4	103.8	36.2	84.1	107.1	97.0
OF (%)	100.0	100.0	100.0	93.1	100.0	100.0	100.0	100.0	100.0	34.9	83.2	100.0	92.5
EUF (%)	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	67.7	14.2	0.0	7.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.7	14.2	0.0	6.9
UCLF (%)	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1968
Date of First Criticality: 11 Dec 1976
Date of Grid Connection: 25 Dec 1976
Date of Commercial Operation: 30 Jun 1977

Lifetime Generation: 167599.2 GW(e).h
Cumulative Energy Availability Factor: 63.8%
Cumulative Load Factor: 60.5%
Cumulative Unit Capability Factor: 64.0%
Cumulative Energy Unavailability Factor: 36.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1977	2058.8	1079.0	50.8	50.8	50.8	50.8	37.2	37.2	2432	47.4
1978	4537.0	1079.0	48.0	49.0	48.0	49.0	48.0	44.0	4862	55.5
1979	2084.3	1079.0	22.0	38.6	22.0	38.6	22.1	35.5	2231	25.5
1980	5689.8	1079.0	74.2	48.6	69.5	47.2	60.0	42.4	6075	69.2
1981	6191.3	1079.0	78.5	55.1	78.5	54.0	65.5	47.4	6839	78.1
1982	4107.4	1079.0	47.0	53.6	47.0	52.8	43.5	46.7	4192	47.9
1983	5408.8	1079.0	57.6	54.2	57.6	53.5	57.2	48.3	5127	58.5
1984	2160.1	1079.0	27.1	50.6	27.1	50.0	22.8	44.9	2378	27.1
1985	9007.5	1079.0	95.2	55.8	95.2	55.3	95.3	50.8	8345	95.3
1986	7084.0	1106.0	78.6	58.2	78.6	57.7	74.6	53.3	6921	79.0
1987	6216.6	1106.0	73.1	59.6	72.6	59.2	64.2	54.3	6362	72.6
1988	7418.6	1106.0	77.9	61.3	77.9	60.8	76.4	56.3	6841	77.9
1989	6213.3	1106.0	69.2	61.9	69.2	61.5	64.1	56.9	6059	69.2
1990	5999.2	1106.0	67.0	62.3	67.0	61.9	61.9	57.3	5868	67.0
1991	6810.3	1106.0	74.0	63.1	74.0	62.7	70.3	58.2	6479	74.0
1992	5307.8	1106.0	58.0	62.8	58.0	62.4	54.6	58.0	5090	57.9
1993	5870.6	1106.0	65.6	62.9	65.6	62.6	60.6	58.1	5746	65.6
1994	5779.3	1106.0	67.0	63.2	67.0	62.9	59.7	58.2	5865	67.0
1995	2554.4	1106.0	30.1	61.4	30.1	61.1	26.4	56.5	2632	30.0
1996	0.0	1106.0	0.0	58.2	0.0	57.9	0.0	53.6	0	0.0
1997	0.0	1106.0	0.0	55.3	0.0	55.1	0.0	50.9	0	0.0
1998	6475.6	1106.0	70.8	56.1	70.8	55.8	66.8	51.7	6199	70.8
1999	8009.2	1106.0	87.5	57.5	87.5	57.2	82.7	53.1	7663	87.5
2000	8952.6	1106.0	94.8	59.1	94.8	58.8	92.2	54.7	8328	94.8
2001	7709.4	1096.0	80.9	59.9	80.9	59.7	80.8	55.8	7116	81.2
2002	8620.6	1096.0	89.5	61.1	89.5	60.9	89.8	57.1	7855	89.7
2003	9096.7	1096.0	95.8	62.4	95.8	62.2	94.7	58.5	8401	95.9
2004	7452.7	1159.0	77.6	63.0	77.6	62.8	75.2	59.2	6766	77.0
2005	9440.6	1111.0	92.5	64.0	92.5	63.8	97.0	60.5	8105	92.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1977 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		49			1473	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	606			1085		
D. Inspection, maintenance or repair without refuelling				112	41	
E. Testing of plant systems or components				1	1	
H. Nuclear regulatory requirements					131	37
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				15	111	0
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					5	
Z. Others					10	
Subtotal	606	49	0	1213	1782	38
Total		655			3033	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1977 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		1
12. Reactor I&C Systems		91
13. Reactor Auxiliary Systems		7
14. Safety Systems	49	19
15. Reactor Cooling Systems		99
16. Steam generation systems		527
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		274
32. Feedwater and Main Steam System		126
33. Circulating Water System		61
35. All other I&C Systems		7
41. Main Generator Systems		120
42. Electrical Power Supply Systems		33
XX. Miscellaneous Systems		4
Total	49	1373

US-311 SALEM-2

Operator: PSEG (PUBLIC SERVICE ELECTRIC & GAS CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1129.0 MW(e)
Design Net Capacity: 1115.0 MW(e)
Design Discharge Burnup: 40000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8886.0 GW(e).h
Energy Availability Factor: 90.1%
Load Factor: 89.8%
Operating Factor: 90.1%
Energy Unavailability Factor: 9.9%
Total Off-line Time: 864 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	855.1	771.7	854.6	128.4	505.7	808.6	823.9	821.5	802.1	847.2	822.6	844.5	8886.0
EAF (%)	100.0	100.0	100.0	13.3	67.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.1
UCF (%)	100.0	100.0	100.0	13.3	67.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.1
LF (%)	101.8	101.7	101.7	15.8	60.2	99.5	98.1	97.8	98.7	100.7	101.2	100.5	89.8
OF (%)	100.0	100.0	100.0	16.0	65.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.1
EUF (%)	0.0	0.0	0.0	86.7	32.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
PUF (%)	0.0	0.0	0.0	86.7	32.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1968
Date of First Criticality: 08 Aug 1980
Date of Grid Connection: 03 Jun 1981
Date of Commercial Operation: 13 Oct 1981

Lifetime Generation: 146753.3 GW(e).h
Cumulative Energy Availability Factor: 66.6%
Cumulative Load Factor: 61.9%
Cumulative Unit Capability Factor: 66.6%
Cumulative Energy Unavailability Factor: 33.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	1632.1	1105.0	96.3	96.3	96.3	96.3	76.9	76.9	1817	94.6
1982	7941.7	1106.0	97.5	97.3	97.5	97.3	82.0	81.1	8517	97.2
1983	775.2	1106.0	12.6	59.2	12.6	59.2	8.0	48.1	1078	12.3
1984	3225.7	1106.0	36.4	52.1	36.4	52.1	33.2	43.5	3192	36.3
1985	5033.8	1106.0	56.2	53.1	56.2	53.1	52.0	45.5	4923	56.2
1986	5317.7	1106.0	61.6	54.7	61.6	54.7	54.9	47.3	5388	61.5
1987	6176.6	1106.0	72.4	57.5	72.4	57.5	63.8	49.9	6338	72.4
1988	5982.2	1106.0	66.5	58.8	66.5	58.8	61.6	51.6	5838	66.5
1989	7824.6	1106.0	84.7	61.9	84.7	61.9	80.8	55.1	7419	84.7
1990	5446.1	1106.0	72.2	63.0	72.2	63.0	56.2	55.2	5163	58.9
1991	7662.3	1106.0	82.1	64.9	82.1	64.9	79.1	57.6	7188	82.1
1992	4744.6	1106.0	53.1	63.8	53.1	63.8	48.8	56.8	4657	53.0
1993	5575.5	1106.0	60.9	63.6	60.9	63.6	57.5	56.8	5328	60.8
1994	5606.8	1106.0	69.4	64.0	69.4	64.0	57.9	56.9	6076	69.4
1995	2071.7	1106.0	25.8	61.4	25.8	61.4	21.4	54.4	2261	25.8
1996	0.0	1106.0	0.0	57.3	0.0	57.3	0.0	50.8	0	0.0
1997	2564.3	1106.0	32.4	55.8	32.4	55.8	26.5	49.3	2834	32.4
1998	7797.2	1106.0	83.2	57.4	83.2	57.4	80.5	51.1	7287	83.2
1999	7949.4	1106.0	84.8	58.9	84.8	58.9	82.0	52.8	7431	84.8
2000	8381.7	1106.0	89.0	60.4	89.0	60.4	86.3	54.6	7819	89.0
2001	9517.6	1092.0	99.7	62.4	99.7	62.4	100.0	56.8	8736	99.7
2002	8367.4	1092.0	86.8	63.5	86.8	63.5	87.5	58.2	7620	87.0
2003	8095.6	1116.0	83.7	64.4	83.7	64.4	84.5	59.4	7355	84.0
2004	8799.8	1116.0	90.3	65.5	90.3	65.5	89.8	60.7	7945	90.4
2005	8886.0	1129.0	90.1	66.6	90.1	66.6	89.8	61.9	7897	90.1

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					1264	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	863			989		
D. Inspection, maintenance or repair without refuelling				126	28	
E. Testing of plant systems or components				0	0	
H. Nuclear regulatory requirements					18	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				5	338	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)					6	
Z. Others					13	
Subtotal	863	0	0	1120	1677	0
Total	863			2797		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		50
13. Reactor Auxiliary Systems		6
14. Safety Systems		60
15. Reactor Cooling Systems		88
16. Steam generation systems		232
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		122
32. Feedwater and Main Steam System		124
33. Circulating Water System		7
35. All other I&C Systems		11
41. Main Generator Systems		318
42. Electrical Power Supply Systems		226
XX. Miscellaneous Systems		10
Total	0	1256

US-361 SAN ONOFRE-2**Operator:** SCE (SOUTHERN CALIFORNIA EDISON)**Contractor:** CE (COMBUSTION ENGINEERING CO.)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1070.0 MW(e)

Design Net Capacity: 1070.0 MW(e)

Design Discharge Burnup: 33000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8931.7 GW(e).h

Energy Availability Factor: 92.7%

Load Factor: 95.3%

Operating Factor: 92.6%

Energy Unavailability Factor: 7.3%

Total Off-line Time: 644 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	783.9	231.7	615.9	754.7	829.9	802.5	828.1	829.9	807.0	822.1	807.4	818.7	8931.7
EAF (%)	100.0	33.7	78.4	95.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.7
UCF (%)	100.0	33.7	78.4	95.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.7
LF (%)	98.5	32.2	77.4	98.0	104.2	104.2	104.0	104.2	104.8	103.1	104.8	102.8	95.3
OF (%)	100.0	34.1	78.0	94.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.6
EUF (%)	0.0	66.3	21.6	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	66.3	21.6	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Mar 1974 **Lifetime Generation:** 172545.8 GW(e).h

Date of First Criticality: 26 Jul 1982 **Cumulative Energy Availability Factor:** 81.3%

Date of Grid Connection: 20 Sep 1982 **Cumulative Load Factor:** 81.6%

Date of Commercial Operation: 08 Aug 1983 **Cumulative Unit Capability Factor:** 81.3%

Cumulative Energy Unavailability Factor: 18.7%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	2775.6	1083.0	73.5	73.5	73.5	73.5	69.8	69.8	2560	69.7
1984	5272.6	1070.0	58.9	63.2	58.9	63.2	56.1	60.2	5167	58.8
1985	5174.0	1070.0	58.4	61.2	58.4	61.2	55.2	58.1	5114	58.4
1986	6371.3	1070.0	71.6	64.3	71.6	64.3	68.0	61.0	6266	71.5
1987	6247.3	1070.0	69.3	65.4	69.3	65.4	66.7	62.3	6067	69.3
1988	9002.7	1070.0	93.8	70.6	93.8	70.6	95.8	68.5	8237	93.8
1989	5237.7	1070.0	56.6	68.5	56.6	68.5	55.9	66.5	4956	56.6
1990	8309.7	1070.0	87.4	71.0	87.4	71.0	88.7	69.5	7657	87.4
1991	5769.4	1070.0	64.4	70.2	64.4	70.2	61.6	68.5	5637	64.3
1992	8795.2	1070.0	93.5	72.7	93.5	72.7	93.6	71.2	8214	93.5
1993	7655.0	1070.0	82.4	73.6	82.4	73.6	81.7	72.2	7213	82.3
1994	9309.2	1070.0	100.0	75.9	100.0	75.9	99.3	74.6	8760	100.0
1995	6496.0	1070.0	70.8	75.5	70.8	75.5	69.3	74.2	6197	70.7
1996	8550.2	1070.0	91.3	76.7	91.3	76.7	91.0	75.4	8016	91.3
1997	6656.3	1070.0	70.8	76.3	70.8	76.3	71.0	75.1	6197	70.7
1998	8430.2	1070.0	88.9	77.1	88.9	77.1	89.9	76.1	7792	88.9
1999	8243.5	1070.0	85.0	77.6	85.0	77.6	87.9	76.8	7447	85.0
2000	8524.2	1070.0	89.0	78.2	89.0	78.2	90.7	77.6	7818	89.0
2001	9492.0	1070.0	97.5	79.3	97.5	79.3	101.3	78.9	8538	97.5
2002	8510.5	1070.0	87.0	79.7	87.0	79.7	90.8	79.5	7618	87.0
2003	9712.5	1070.0	99.0	80.6	99.0	80.6	103.6	80.7	8671	99.0
2004	8068.0	1070.0	82.7	80.7	82.7	80.7	85.8	80.9	7263	82.7
2005	8931.7	1070.0	92.7	81.3	92.7	81.3	95.3	81.6	8117	92.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		643		2	341	
B. Refuelling without a maintenance					41	
C. Inspection, maintenance or repair combined with refuelling				1095		
D. Inspection, maintenance or repair without refuelling				134		
E. Testing of plant systems or components				5		
H. Nuclear regulatory requirements					34	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				30	27	
L. Human factor related					1	
Subtotal	0	643	0	1266	444	0
Total		643			1710	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		2
12. Reactor I&C Systems		20
13. Reactor Auxiliary Systems		2
14. Safety Systems		2
15. Reactor Cooling Systems		87
16. Steam generation systems		78
31. Turbine and auxiliaries		17
32. Feedwater and Main Steam System	36	71
33. Circulating Water System	497	
41. Main Generator Systems		40
42. Electrical Power Supply Systems	109	14
XX. Miscellaneous Systems		1
Total	642	334

US-362 SAN ONOFRE-3

Operator: SCE (SOUTHERN CALIFORNIA EDISON)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1080.0 MW(e)
 Design Net Capacity: 1070.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9468.3 GW(e).h
 Energy Availability Factor: 98.4%
 Load Factor: 100.1%
 Operating Factor: 98.3%
 Energy Unavailability Factor: 1.6%
 Total Off-line Time: 145 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	677.9	753.9	834.4	810.1	654.1	807.6	830.2	834.2	808.4	834.2	800.7	822.6	9468.3
EAF (%)	100.0	100.0	100.0	100.0	80.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.4
UCF (%)	100.0	100.0	100.0	100.0	80.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.4
LF (%)	84.4	103.9	103.8	104.2	81.4	103.9	103.3	103.8	104.0	103.7	103.0	102.4	100.1
OF (%)	100.0	100.0	100.0	99.9	80.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3
EUF (%)	0.0	0.0	0.0	0.0	19.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
PUF (%)	0.0	0.0	0.0	0.0	19.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Mar 1974
 Date of First Criticality: 29 Aug 1983
 Date of Grid Connection: 25 Sep 1983
 Date of Commercial Operation: 01 Apr 1984

Lifetime Generation: 167642.2 GW(e).h
 Cumulative Energy Availability Factor: 81.9%
 Cumulative Load Factor: 80.7%
 Cumulative Unit Capability Factor: 81.9%
 Cumulative Energy Unavailability Factor: 18.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	4112.2	1080.0	62.9	62.9	62.9	62.9	57.7	57.7	4103	62.2
1985	3735.9	1080.0	53.8	57.7	53.8	57.7	39.5	47.3	4708	53.7
1986	6760.6	1080.0	80.7	66.1	80.7	66.1	71.5	56.1	7067	80.7
1987	7523.6	1080.0	79.8	69.7	79.8	69.7	79.5	62.3	6987	79.8
1988	6146.0	1080.0	65.1	68.7	65.1	68.7	64.8	62.8	5714	65.1
1989	8840.6	1080.0	93.9	73.1	93.9	73.1	93.4	68.2	8224	93.9
1990	6602.0	1080.0	70.3	72.7	70.3	72.7	69.8	68.4	6159	70.3
1991	8693.2	1080.0	92.4	75.2	92.4	75.2	91.9	71.4	8094	92.4
1992	6830.8	1080.0	74.4	75.1	74.4	75.1	72.0	71.5	6533	74.4
1993	7128.2	1080.0	76.4	75.3	76.4	75.3	75.3	71.9	6689	76.4
1994	9147.7	1080.0	99.8	77.5	99.8	77.5	96.7	74.2	8742	99.8
1995	7501.6	1080.0	81.9	77.9	81.9	77.9	79.3	74.6	7175	81.9
1996	8838.6	1080.0	94.6	79.2	94.6	79.2	93.2	76.1	8313	94.6
1997	6842.9	1080.0	72.6	78.7	72.6	78.7	72.3	75.8	6357	72.6
1998	9058.6	1080.0	94.8	79.8	94.8	79.8	95.7	77.2	8304	94.8
1999	8416.5	1080.0	87.4	80.3	87.4	80.3	89.0	77.9	7658	87.4
2000	9633.8	1080.0	100.0	81.5	100.0	81.5	101.5	79.3	8784	100.0
2001	5679.3	1080.0	58.9	80.2	58.9	80.2	60.0	78.2	5170	59.0
2002	9548.2	1080.0	98.8	81.2	98.8	81.2	100.9	79.4	8658	98.8
2003	8596.3	1080.0	88.4	81.6	88.4	81.6	90.9	80.0	7741	88.4
2004	6985.6	1080.0	72.8	81.2	72.2	81.1	73.6	79.7	6344	72.2
2005	9468.3	1080.0	98.4	81.9	98.4	81.9	100.1	80.7	8616	98.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					461	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling				962		
D. Inspection, maintenance or repair without refuelling	143			80		
E. Testing of plant systems or components				5		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					6	
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						2
Subtotal	143	0	0	1047	468	2
Total	143			1517		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		39
13. Reactor Auxiliary Systems		7
14. Safety Systems		55
15. Reactor Cooling Systems		70
16. Steam generation systems		61
31. Turbine and auxiliaries		11
32. Feedwater and Main Steam System		12
41. Main Generator Systems		41
42. Electrical Power Supply Systems		39
Total	0	335

US-443 SEABROOK-1

Operator: FPL (FLORIDA POWER & LIGHT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1159.0 MW(e)
 Design Net Capacity: 1149.0 MW(e)
 Design Discharge Burnup: 33000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9455.2 GW(e).h
 Energy Availability Factor: 90.5%
 Load Factor: 93.1%
 Operating Factor: 90.5%
 Energy Unavailability Factor: 9.5%
 Total Off-line Time: 833 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	862.3	779.1	778.6	0.0	768.6	877.6	906.8	906.9	878.8	909.7	878.8	907.9	9455.2
EAF (%)	100.0	100.0	93.2	0.0	91.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.5
UCF (%)	100.0	100.0	93.2	0.0	91.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.5
LF (%)	100.0	100.0	90.3	0.0	89.1	105.2	105.2	105.2	105.3	105.4	105.3	105.3	93.1
OF (%)	100.0	100.0	93.1	0.0	91.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.5
EUF (%)	0.0	0.0	6.8	100.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
PUF (%)	0.0	0.0	0.0	100.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
UCLF (%)	0.0	0.0	6.8	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jul 1976
 Date of First Criticality: 13 Jun 1989
 Date of Grid Connection: 29 May 1990
 Date of Commercial Operation: 19 Aug 1990

Lifetime Generation: 132086.5 GW(e).h
 Cumulative Energy Availability Factor: 85.5%
 Cumulative Load Factor: 84.2%
 Cumulative Unit Capability Factor: 85.7%
 Cumulative Energy Unavailability Factor: 14.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1990	3443.5	1150.0	85.2	85.2	85.2	85.2	81.5	81.5	3131	85.2
1991	6814.4	1150.0	73.0	76.6	73.0	76.6	67.6	71.7	6394	73.0
1992	7868.4	1150.0	80.3	78.1	80.3	78.1	77.9	74.3	7056	80.3
1993	9046.8	1150.0	92.4	82.3	92.4	82.3	89.8	78.8	8094	92.4
1994	6203.5	1150.0	62.3	77.8	62.3	77.8	61.6	74.9	5466	62.4
1995	8380.6	1158.0	85.2	79.1	85.2	79.1	83.1	76.4	7465	85.2
1996	9844.2	1158.0	99.0	82.2	99.0	82.2	96.8	79.6	8690	98.9
1997	7945.7	1158.0	79.2	81.8	79.2	81.8	78.3	79.5	6929	79.1
1998	8388.4	1158.0	83.3	82.0	83.3	82.0	82.7	79.8	7294	83.3
1999	8685.7	1155.0	86.3	82.5	86.3	82.5	85.8	80.5	7564	86.3
2000	7921.5	1155.0	78.7	82.1	78.7	82.1	78.1	80.2	6910	78.7
2001	8692.2	1155.0	90.6	82.8	87.9	82.6	85.9	80.7	7703	87.9
2002	9293.4	1155.0	92.2	83.6	92.2	83.4	91.9	81.6	8083	92.3
2003	9275.4	1155.0	92.7	84.3	92.7	84.1	91.7	82.4	8121	92.7
2004	10177.0	1155.0	100.0	85.4	100.0	85.2	100.3	83.6	8784	100.0
2005	9455.2	1159.0	90.5	85.7	90.5	85.5	93.1	84.2	7928	90.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1990 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		57			332	
C. Inspection, maintenance or repair combined with refuelling	752			824		
D. Inspection, maintenance or repair without refuelling				15	1	
E. Testing of plant systems or components	21			0	6	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	3	14
Subtotal	773	57	0	839	342	14
Total		830			1195	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1990 to 2005 Average Hours Lost Per Year
13. Reactor Auxiliary Systems		109
15. Reactor Cooling Systems		53
17. Safety I&C Systems (excluding reactor I&C)		5
31. Turbine and auxiliaries	6	41
32. Feedwater and Main Steam System		22
35. All other I&C Systems		24
41. Main Generator Systems	50	50
42. Electrical Power Supply Systems		24
Total	56	328

US-327 SEQUOYAH-1

Operator: TVA (TENNESSEE VALLEY AUTHORITY)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1150.0 MW(e)
Design Net Capacity: 1148.0 MW(e)
Design Discharge Burnup: 45000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 10076.5 GW(e).h
Energy Availability Factor: 98.8%
Load Factor: 100.0%
Operating Factor: 98.8%
Energy Unavailability Factor: 1.2%
Total Off-line Time: 103 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	878.3	788.4	879.5	703.1	869.1	834.4	855.6	851.6	824.9	865.6	846.5	879.4	10076.5
EAF (%)	100.0	100.0	100.0	85.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8
UCF (%)	100.0	100.0	100.0	85.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8
LF (%)	102.6	102.0	102.8	84.9	101.6	100.8	100.0	99.5	99.6	101.0	102.2	102.8	100.0
OF (%)	100.0	100.0	100.0	85.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8
EUF (%)	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1970
Date of First Criticality: 05 Jul 1980
Date of Grid Connection: 22 Jul 1980
Date of Commercial Operation: 01 Jul 1981

Lifetime Generation: 164101.2 GW(e).h
Cumulative Energy Availability Factor: 68.6%
Cumulative Load Factor: 66.4%
Cumulative Unit Capability Factor: 68.6%
Cumulative Energy Unavailability Factor: 31.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1981	2526.9	1128.0	62.1	62.1	62.1	62.1	50.7	50.7	2688	60.9
1982	4909.7	1128.0	53.4	56.3	53.4	56.3	49.7	50.0	4626	52.8
1983	7340.9	1139.0	78.2	65.1	78.2	65.1	73.6	59.5	6791	77.5
1984	6104.7	1148.0	69.1	66.3	69.1	66.3	60.5	59.8	5992	68.2
1985	4076.1	1148.0	44.7	61.4	44.7	61.4	40.5	55.5	3760	42.9
1986	0.0	1148.0	0.0	50.2	0.0	50.2	0.0	45.3	0	0.0
1987	0.0	1148.0	0.0	42.4	0.0	42.4	0.0	38.3	0	0.0
1988	127.7	1148.0	6.3	37.6	6.3	37.6	1.3	33.4	282	3.2
1989	9550.6	1148.0	98.5	44.8	98.5	44.8	95.0	40.6	8624	98.4
1990	6840.7	1148.0	74.0	47.9	74.0	47.9	68.0	43.5	6406	73.1
1991	7270.1	1122.0	77.6	50.7	77.6	50.7	74.0	46.4	6774	77.3
1992	8402.5	1122.0	88.2	53.9	88.2	53.9	85.3	49.7	7734	88.0
1993	1290.5	1122.0	14.8	50.8	14.8	50.8	13.1	46.8	1219	13.9
1994	6111.6	1111.0	66.0	51.9	66.0	51.9	62.8	48.0	5774	65.9
1995	6829.5	1111.0	75.6	53.5	75.6	53.5	70.2	49.5	6620	75.6
1996	9293.5	1117.0	95.1	56.1	95.1	56.1	95.1	52.4	8344	95.0
1997	8324.3	1117.0	85.5	57.9	85.5	57.9	85.1	54.3	7486	85.5
1998	8905.7	1122.0	91.0	59.8	91.0	59.8	90.9	56.4	7966	90.9
1999	9987.0	1122.0	100.0	61.9	100.0	61.9	101.6	58.8	8760	100.0
2000	7720.5	1122.0	79.5	62.8	79.5	62.8	78.3	59.8	6988	79.6
2001	9019.0	1122.0	91.2	64.2	91.2	64.2	91.8	61.4	7988	91.2
2002	9953.5	1125.0	100.0	65.8	100.0	65.8	101.1	63.2	8760	100.0
2003	7351.1	1125.0	73.6	66.2	73.6	66.2	74.6	63.7	6443	73.6
2004	9290.5	1148.0	91.4	67.3	91.4	67.3	92.1	64.9	8027	91.4
2005	10076.5	1150.0	98.8	68.6	98.8	68.6	100.0	66.4	8658	98.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1981 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		101			670	
B. Refuelling without a maintenance					19	
C. Inspection, maintenance or repair combined with refuelling	854					
D. Inspection, maintenance or repair without refuelling	14				28	
E. Testing of plant systems or components	1					
F. Major back-fitting, refurbishment or upgrading activities with refuelling					4	
H. Nuclear regulatory requirements	44				364	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	55				652	
L. Human factor related					3	
Subtotal	0	101	0	968	1740	0
Total		101			2708	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1981 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		23
13. Reactor Auxiliary Systems		18
14. Safety Systems		16
15. Reactor Cooling Systems		65
16. Steam generation systems		4
31. Turbine and auxiliaries	101	34
32. Feedwater and Main Steam System		345
35. All other I&C Systems		6
41. Main Generator Systems		104
42. Electrical Power Supply Systems		37
Total	101	652

US-328 SEQUOYAH-2

Operator: TVA (TENNESSEE VALLEY AUTHORITY)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 1127.0 MW(e)
 Design Net Capacity: 1148.0 MW(e)
 Design Discharge Burnup: 45000 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8922.6 GW(e).h
 Energy Availability Factor: 89.8%
 Load Factor: 90.4%
 Operating Factor: 89.8%
 Energy Unavailability Factor: 10.2%
 Total Off-line Time: 894 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	856.0	676.0	857.2	659.4	23.3	818.9	838.5	835.9	810.5	850.5	831.9	864.5	8922.6
EAF (%)	100.0	90.9	100.0	80.0	7.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.8
UCF (%)	100.0	90.9	100.0	80.0	7.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.8
LF (%)	102.1	89.3	102.2	81.3	2.8	100.9	100.0	99.7	99.9	101.3	102.5	103.1	90.4
OF (%)	100.0	90.8	100.0	79.9	7.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.8
EUF (%)	0.0	9.1	0.0	20.0	92.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
PUF (%)	0.0	0.0	0.0	20.0	92.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
UCLF (%)	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1970 Lifetime Generation: 163916.0 GW(e).h
 Date of First Criticality: 05 Nov 1981 Cumulative Energy Availability Factor: 73.0%
 Date of Grid Connection: 23 Dec 1981 Cumulative Load Factor: 69.7%
 Date of Commercial Operation: 01 Jun 1982 Cumulative Unit Capability Factor: 73.0%
 Cumulative Energy Unavailability Factor: 27.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1982	3926.3	1145.0	75.0	75.0	75.0	75.0	66.8	66.8	3804	74.1
1983	6691.4	1133.0	72.8	73.6	72.8	73.6	67.4	67.2	6346	72.4
1984	6403.3	1148.0	69.8	72.1	69.8	72.1	63.5	65.7	6112	69.6
1985	5625.0	1148.0	59.8	68.7	59.8	68.7	55.9	63.0	5223	59.6
1986	0.0	1148.0	0.0	53.7	0.0	53.7	0.0	49.2	0	0.0
1987	0.0	1148.0	0.0	44.0	0.0	44.0	0.0	40.4	0	0.0
1988	3934.7	1148.0	59.4	46.4	59.4	46.4	39.0	40.2	5097	58.0
1989	6067.7	1148.0	70.7	49.6	70.7	49.6	60.3	42.8	6103	69.7
1990	7185.5	1148.0	79.1	53.0	79.1	53.0	71.5	46.2	6864	78.4
1991	9318.9	1122.0	96.9	57.5	96.9	57.5	94.8	51.2	8482	96.8
1992	7276.1	1122.0	80.3	59.6	80.3	59.6	73.8	53.3	7031	80.0
1993	2094.4	1122.0	26.3	56.8	26.3	56.8	21.3	50.6	2213	25.3
1994	5849.4	1106.0	61.8	57.2	61.8	57.2	60.4	51.3	5415	61.8
1995	8887.7	1106.0	92.1	59.7	92.1	59.7	91.7	54.2	8064	92.1
1996	7682.5	1117.0	78.6	61.0	78.6	61.0	78.9	55.9	6894	78.5
1997	8725.6	1117.0	91.5	62.9	91.5	62.9	89.2	58.0	8001	91.3
1998	9799.6	1117.0	98.8	65.0	98.8	65.0	100.1	60.5	8656	98.8
1999	8979.0	1117.0	93.7	66.7	93.7	66.7	91.8	62.2	8203	93.6
2000	9058.3	1117.0	92.9	68.1	92.9	68.1	92.3	63.8	8158	92.9
2001	9939.9	1117.0	100.0	69.7	100.0	69.7	101.6	65.7	8760	100.0
2002	8542.0	1126.0	87.3	70.5	87.3	70.5	87.1	66.8	7640	87.2
2003	8258.3	1126.0	84.6	71.2	84.6	71.2	83.7	67.6	7401	84.5
2004	9464.9	1124.0	95.1	72.2	95.1	72.2	95.9	68.8	8353	95.1
2005	8922.6	1127.0	89.8	73.0	89.8	73.0	90.4	69.7	7867	89.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1982 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		61			532	
B. Refuelling without a maintenance					24	
C. Inspection, maintenance or repair combined with refuelling	830			731		
D. Inspection, maintenance or repair without refuelling				41		
E. Testing of plant systems or components				1		
H. Nuclear regulatory requirements					497	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					467	
Subtotal	830	61	0	773	1520	0
Total		891			2293	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1982 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		4
13. Reactor Auxiliary Systems		10
14. Safety Systems		1
15. Reactor Cooling Systems		55
16. Steam generation systems		30
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		31
32. Feedwater and Main Steam System	61	56
35. All other I&C Systems		2
41. Main Generator Systems		305
42. Electrical Power Supply Systems		20
Total	61	516

US-400 SHEARON HARRIS-1

Operator: PROGRESS (Progress Energy Corporation)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 900.0 MW(e)
Design Net Capacity: 900.0 MW(e)
Design Discharge Burnup: 31500 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7930.8 GW(e).h
Energy Availability Factor: 99.4%
Load Factor: 100.6%
Operating Factor: 99.4%
Energy Unavailability Factor: 0.6%
Total Off-line Time: 51 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	691.9	627.9	693.1	663.6	577.2	654.4	670.7	671.4	652.2	669.1	664.7	694.6	7930.8
EAF (%)	100.0	100.0	100.0	100.0	93.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4
UCF (%)	100.0	100.0	100.0	100.0	93.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4
LF (%)	103.3	103.8	103.5	102.4	86.2	101.0	100.2	100.3	100.7	99.8	102.6	103.7	100.6
OF (%)	100.0	100.0	100.0	99.9	93.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4
EUF (%)	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jan 1974
Date of First Criticality: 03 Jan 1987
Date of Grid Connection: 19 Jan 1987
Date of Commercial Operation: 02 May 1987

Lifetime Generation: 117461.0 GW(e).h
Cumulative Energy Availability Factor: 87.0%
Cumulative Load Factor: 85.7%
Cumulative Unit Capability Factor: 87.0%
Cumulative Energy Unavailability Factor: 13.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987			Data not provided							
1988	5345.6	860.0	73.6	73.6	73.6	73.6	70.8	70.8	6458	73.5
1989	5638.8	860.0	78.5	76.0	78.5	76.0	74.8	72.8	6873	78.5
1990	6339.0	860.0	89.2	80.4	89.2	80.4	84.1	76.6	7812	89.2
1991	5927.4	860.0	80.8	80.5	80.8	80.5	78.7	77.1	7080	80.8
1992	5427.9	860.0	74.0	79.2	74.0	79.2	71.9	76.1	6501	74.0
1993	7527.7	860.0	99.6	82.6	99.6	82.6	99.9	80.0	8721	99.6
1994	6065.1	860.0	82.2	82.5	82.2	82.5	80.5	80.1	7195	82.1
1995	5966.3	860.0	83.1	82.6	83.1	82.6	79.2	80.0	7279	83.1
1996	7067.7	860.0	95.3	84.0	94.6	83.9	93.6	81.5	8301	94.5
1997	5909.0	860.0	79.2	83.5	79.2	83.5	78.4	81.2	6934	79.2
1998	6711.6	860.0	90.1	84.1	90.1	84.1	89.1	81.9	7891	90.1
1999	7244.1	860.0	96.9	85.2	96.9	85.1	96.2	83.1	8484	96.8
2000	6878.0	860.0	92.2	85.7	92.2	85.7	91.0	83.7	8098	92.2
2001	5401.5	860.0	72.3	84.8	72.3	84.7	71.7	82.8	6335	72.3
2002	7835.0	900.0	99.0	85.8	98.7	85.7	99.4	84.0	8643	98.7
2003	7236.9	900.0	92.3	86.2	92.3	86.1	91.8	84.5	8082	92.3
2004	7008.4	900.0	87.5	86.3	87.5	86.2	88.7	84.8	7687	87.5
2005	7930.8	900.0	99.4	87.0	99.4	87.0	100.6	85.7	8710	99.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		50			181	
B. Refuelling without a maintenance					1	
C. Inspection, maintenance or repair combined with refuelling	866					
D. Inspection, maintenance or repair without refuelling	79				7	
E. Testing of plant systems or components	1					
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	5
Subtotal	0	50	0	946	191	5
Total		50			1142	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		32
15. Reactor Cooling Systems		1
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		69
32. Feedwater and Main Steam System	50	51
41. Main Generator Systems		13
42. Electrical Power Supply Systems		2
XX. Miscellaneous Systems		6
Total	50	176

US-498 SOUTH TEXAS-1**Operator:** STP (STP Nuclear Operating Co.)**Contractor:** WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1280.0 MW(e)

Design Net Capacity: 1250.0 MW(e)

Design Discharge Burnup: 43000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9901.9 GW(e).h

Energy Availability Factor: 89.6%

Load Factor: 88.3%

Operating Factor: 89.5%

Energy Unavailability Factor: 10.4%

Total Off-line Time: 916 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	957.1	810.3	199.5	439.2	952.9	917.1	944.6	929.4	917.0	947.8	927.3	959.6	9901.9
EAF (%)	100.0	100.0	25.8	49.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.6
UCF (%)	100.0	100.0	25.8	49.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.6
LF (%)	100.5	94.2	21.0	47.7	100.1	99.5	99.2	97.6	99.5	99.4	100.6	100.8	88.3
OF (%)	100.0	100.0	25.8	49.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.5
EUF (%)	0.0	0.0	74.2	50.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
PUF (%)	0.0	0.0	74.2	50.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Sep 1975 **Lifetime Generation:** 146163.7 GW(e).h

Date of First Criticality: 08 Mar 1988 **Cumulative Energy Availability Factor:** 78.2%

Date of Grid Connection: 30 Mar 1988 **Cumulative Load Factor:** 76.7%

Date of Commercial Operation: 25 Aug 1988 **Cumulative Unit Capability Factor:** 78.2%

Cumulative Energy Unavailability Factor: 21.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1988	2791.5	1250.0	77.7	77.7	77.7	77.7	72.1	72.1	2404	77.6
1989	6307.7	1250.0	63.1	66.9	63.1	66.9	57.6	61.4	5524	63.1
1990	6072.9	1251.0	59.4	63.7	59.4	63.7	55.4	58.9	5198	59.3
1991	7239.8	1251.0	69.3	65.4	69.3	65.4	66.1	61.0	6069	69.3
1992	7265.1	1251.0	68.7	66.1	68.7	66.1	66.1	62.2	6033	68.7
1993	666.0	1251.0	7.7	55.2	7.7	55.2	6.1	51.7	676	7.7
1994	8251.4	1251.0	78.2	58.8	78.2	58.8	75.3	55.4	6842	78.1
1995	9301.8	1251.0	86.5	62.6	86.5	62.6	84.9	59.4	7570	86.4
1996	10226.8	1251.0	93.5	66.3	93.5	66.3	93.1	63.5	8213	93.5
1997	9873.2	1251.0	91.6	69.0	91.6	69.0	90.1	66.3	8019	91.5
1998	10859.9	1250.0	99.8	72.0	99.8	72.0	99.1	69.5	8739	99.8
1999	9645.4	1250.0	89.7	73.5	89.7	73.5	88.1	71.1	7857	89.7
2000	8591.9	1250.0	78.6	74.0	78.6	74.0	78.3	71.7	6905	78.6
2001	10338.2	1250.0	94.1	75.5	94.1	75.5	94.4	73.4	8240	94.1
2002	10867.9	1250.0	97.9	77.0	97.9	77.0	99.0	75.2	8573	97.9
2003	6858.8	1250.0	62.3	76.1	62.3	76.1	62.6	74.4	5433	62.0
2004	11103.6	1250.0	99.2	77.5	99.2	77.5	101.1	76.0	8712	99.2
2005	9901.9	1280.0	89.6	78.2	89.6	78.2	88.3	76.7	7845	89.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					884	
B. Refuelling without a maintenance					20	
C. Inspection, maintenance or repair combined with refuelling	914			715		
D. Inspection, maintenance or repair without refuelling				87	57	
E. Testing of plant systems or components				8		
H. Nuclear regulatory requirements					21	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0		
Subtotal	914	0	0	810	982	0
Total	914			1792		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		2
13. Reactor Auxiliary Systems		7
14. Safety Systems		517
15. Reactor Cooling Systems		14
17. Safety I&C Systems (excluding reactor I&C)		179
31. Turbine and auxiliaries		22
32. Feedwater and Main Steam System		25
35. All other I&C Systems		9
41. Main Generator Systems		92
42. Electrical Power Supply Systems		7
Total	0	874

US-499 SOUTH TEXAS-2

Operator: STP (STP Nuclear Operating Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR

Net Reference Unit Power
at the beginning of 2005: 1280.0 MW(e)

Design Net Capacity: 1250.0 MW(e)

Design Discharge Burnup: 43000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9937.2 GW(e).h

Energy Availability Factor: 89.8%

Load Factor: 88.6%

Operating Factor: 89.8%

Energy Unavailability Factor: 10.2%

Total Off-line Time: 894 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	955.3	623.0	951.2	917.4	948.9	913.0	940.4	938.6	878.6	23.3	887.2	960.3	9937.2
EAF (%)	100.0	73.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	3.6	100.0	100.0	89.8
UCF (%)	100.0	73.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	3.6	100.0	100.0	89.8
LF (%)	100.3	72.4	99.9	99.5	99.6	99.1	98.8	98.6	95.3	2.4	96.3	100.8	88.6
OF (%)	100.0	73.8	100.0	99.9	100.0	100.0	100.0	100.0	100.0	3.6	100.0	100.0	89.8
EUF (%)	0.0	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.4	0.0	0.0	10.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.4	0.0	0.0	8.2
UCLF (%)	0.0	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Sep 1975 Lifetime Generation: 141382.3 GW(e).h

Date of First Criticality: 12 Mar 1989 Cumulative Energy Availability Factor: 79.6%

Date of Grid Connection: 11 Apr 1989 Cumulative Load Factor: 77.9%

Date of Commercial Operation: 19 Jun 1989 Cumulative Unit Capability Factor: 79.6%

 Cumulative Energy Unavailability Factor: 20.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	3026.7	1250.0	60.5	60.5	60.5	60.5	51.5	51.5	2845	60.5
1990	6452.2	1251.0	62.8	62.0	62.8	62.0	58.9	56.3	5494	62.7
1991	7268.0	1251.0	70.0	65.2	70.0	65.2	66.3	60.2	6134	70.0
1992	10341.0	1251.0	97.3	74.3	97.3	74.3	94.1	69.8	8548	97.3
1993	690.3	1251.0	8.0	59.7	8.0	59.7	6.3	55.8	702	8.0
1994	5991.0	1251.0	58.2	59.4	58.2	59.4	54.7	55.6	5098	58.2
1995	9923.1	1251.0	91.2	64.3	91.2	64.3	90.5	61.0	7985	91.2
1996	10457.9	1251.0	95.3	68.4	95.3	68.4	95.2	65.5	8373	95.3
1997	9972.9	1251.0	92.4	71.2	92.4	71.2	91.0	68.5	8093	92.4
1998	9983.9	1250.0	92.5	73.4	92.5	73.4	91.1	70.9	8096	92.4
1999	9799.3	1250.0	91.7	75.2	91.7	75.2	89.5	72.6	8034	91.7
2000	10557.2	1250.0	96.2	77.0	96.2	77.0	96.1	74.7	8449	96.2
2001	9537.6	1250.0	88.5	77.9	88.5	77.9	87.1	75.7	7751	88.5
2002	8219.8	1250.0	75.9	77.8	75.9	77.8	75.1	75.6	6663	76.1
2003	8920.2	1250.0	81.1	78.0	81.1	78.0	81.5	76.0	7112	81.2
2004	10304.1	1250.0	92.3	78.9	92.3	78.9	93.8	77.2	8121	92.5
2005	9937.2	1280.0	89.8	79.6	89.8	79.6	88.6	77.9	7866	89.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		175			617	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	717			946		
D. Inspection, maintenance or repair without refuelling				95		
E. Testing of plant systems or components				2		
H. Nuclear regulatory requirements					2	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	
Z. Others					2	
Subtotal	717	175	0	1043	639	0
Total		892			1682	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		3
13. Reactor Auxiliary Systems		13
14. Safety Systems		237
15. Reactor Cooling Systems	175	1
16. Steam generation systems		19
17. Safety I&C Systems (excluding reactor I&C)		8
31. Turbine and auxiliaries		123
32. Feedwater and Main Steam System		57
33. Circulating Water System		1
35. All other I&C Systems		10
41. Main Generator Systems		52
42. Electrical Power Supply Systems		53
Total	175	577

US-335 ST. LUCIE-1

Operator: FPL (FLORIDA POWER & LIGHT CO.)

Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 839.0 MW(e)
Design Net Capacity: 830.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6088.1 GW(e).h
Energy Availability Factor: 82.4%
Load Factor: 82.8%
Operating Factor: 82.4%
Energy Unavailability Factor: 17.6%
Total Off-line Time: 1543 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	637.0	575.7	635.1	613.7	631.9	610.9	630.2	624.6	604.6	307.4	0.0	216.9	6088.1
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48.4	0.0	41.1	82.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48.4	0.0	41.1	82.4
LF (%)	102.1	102.1	101.7	101.6	101.2	101.1	101.0	100.1	100.1	49.2	0.0	34.8	82.8
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	50.7	0.0	38.8	82.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.6	100.0	58.9	17.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.6	100.0	58.9	17.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Jul 1970
Date of First Criticality: 22 Apr 1976
Date of Grid Connection: 07 May 1976
Date of Commercial Operation: 21 Dec 1976

Lifetime Generation: 169837.8 GW(e).h
Cumulative Energy Availability Factor: 80.9%
Cumulative Load Factor: 80.6%
Cumulative Unit Capability Factor: 81.2%
Cumulative Energy Unavailability Factor: 19.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1976	99.0	802.0	100.0	100.0	100.0	100.0	16.6	16.6	264	35.5
1977	5343.7	779.0	78.4	80.1	78.4	80.1	78.3	73.3	7414	84.6
1978	5009.7	777.0	73.7	77.0	73.7	77.0	73.6	73.5	6674	76.2
1979	4889.6	777.0	71.7	75.3	71.7	75.3	71.8	72.9	6469	73.8
1980	5201.9	777.0	76.0	75.5	76.0	75.5	76.2	73.7	6797	77.4
1981	4954.7	777.0	70.5	74.5	70.5	74.5	72.8	73.6	6364	72.6
1982	6784.6	803.0	94.1	77.8	94.1	77.8	96.5	77.4	8227	93.9
1983	1099.5	820.0	15.4	68.6	15.4	68.6	15.3	68.3	1350	15.4
1984	4243.3	822.0	60.8	67.6	58.6	67.3	58.8	67.1	5154	58.7
1985	5868.6	827.0	80.4	69.1	80.4	68.8	81.1	68.7	7067	80.7
1986	7052.0	839.0	95.7	71.8	95.7	71.6	97.1	71.6	8351	95.3
1987	5719.2	839.0	77.8	72.4	77.8	72.2	77.8	72.2	6812	77.8
1988	6256.0	839.0	84.4	73.4	84.4	73.2	84.9	73.3	7407	84.3
1989	6947.3	839.0	94.3	75.1	94.3	74.9	94.5	75.0	8257	94.3
1990	4503.5	839.0	64.3	74.3	64.3	74.1	61.3	74.0	5463	62.4
1991	5793.3	839.0	80.9	74.7	80.9	74.6	78.8	74.3	7089	80.9
1992	7142.2	839.0	96.5	76.1	96.5	76.0	96.9	75.7	8479	96.5
1993	5440.5	839.0	76.6	76.2	76.2	76.0	74.0	75.6	6678	76.2
1994	6183.6	839.0	86.8	76.8	86.8	76.6	84.1	76.1	7600	86.8
1995	5519.4	839.0	76.2	76.7	76.2	76.6	75.1	76.1	6662	76.1
1996	5222.0	839.0	73.8	76.6	73.8	76.5	70.9	75.8	6472	73.7
1997	5717.7	839.0	78.1	76.7	78.1	76.5	77.8	75.9	6842	78.1
1998	7035.5	839.0	95.8	77.5	95.8	77.4	95.7	76.8	8393	95.8
1999	6532.7	839.0	89.9	78.1	88.5	77.9	88.9	77.3	7752	88.5
2000	7513.7	839.0	100.0	79.0	100.0	78.9	102.0	78.4	8784	100.0
2001	6709.8	839.0	90.4	79.5	90.4	79.3	91.3	78.9	7915	90.4
2002	6919.4	839.0	93.2	80.0	93.2	79.9	94.1	79.5	8163	93.2
2003	7504.8	839.0	100.0	80.8	100.0	80.6	102.1	80.4	8760	100.0
2004	6324.3	839.0	90.4	81.1	85.6	80.8	85.8	80.6	7518	85.6
2005	6088.1	839.0	82.4	81.2	82.4	80.9	82.8	80.6	7217	82.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1976 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure				0	394	
B. Refuelling without a maintenance					24	
C. Inspection, maintenance or repair combined with refuelling	1542			1099		
D. Inspection, maintenance or repair without refuelling				88	7	
E. Testing of plant systems or components				4		
H. Nuclear regulatory requirements				7		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	9	14
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						14
Subtotal	1542	0	0	1198	434	28
Total		1542			1660	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1976 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		31
12. Reactor I&C Systems		9
13. Reactor Auxiliary Systems		16
14. Safety Systems		6
15. Reactor Cooling Systems		116
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		10
32. Feedwater and Main Steam System		14
33. Circulating Water System		3
41. Main Generator Systems		15
42. Electrical Power Supply Systems		24
XX. Miscellaneous Systems		11
Total	0	256

US-389 ST. LUCIE-2

Operator: FPL (FLORIDA POWER & LIGHT CO.)
Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 839.0 MW(e)
Design Net Capacity: 830.0 MW(e)
Design Discharge Burnup: 36000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6283.1 GW(e).h
Energy Availability Factor: 86.8%
Load Factor: 85.5%
Operating Factor: 86.8%
Energy Unavailability Factor: 13.2%
Total Off-line Time: 1158 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	20.6	235.9	628.8	606.3	623.6	603.8	620.9	586.8	595.8	531.7	603.3	625.7	6283.1
EAF (%)	6.6	49.7	100.0	100.0	100.0	100.0	100.0	96.2	100.0	87.3	100.0	100.0	86.8
UCF (%)	6.6	49.7	100.0	100.0	100.0	100.0	100.0	96.2	100.0	100.0	100.0	100.0	87.9
LF (%)	3.3	41.8	100.7	100.4	99.9	100.0	99.5	94.0	98.6	85.2	99.9	100.2	85.5
OF (%)	8.9	47.0	100.0	99.9	100.0	100.0	100.0	96.1	100.0	87.4	100.0	100.0	86.8
EUF (%)	93.4	50.3	0.0	0.0	0.0	0.0	0.0	3.8	0.0	12.7	0.0	0.0	13.2
PUF (%)	87.1	50.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
UCLF (%)	6.3	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.9
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Jun 1976
Date of First Criticality: 02 Jun 1983
Date of Grid Connection: 13 Jun 1983
Date of Commercial Operation: 08 Aug 1983

Lifetime Generation: 140354.7 GW(e).h
Cumulative Energy Availability Factor: 86.4%
Cumulative Load Factor: 85.5%
Cumulative Unit Capability Factor: 86.9%
Cumulative Energy Unavailability Factor: 13.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	2397.5	786.0	89.4	89.4	89.4	89.4	87.0	87.0	3129	89.3
1984	5564.8	786.0	82.9	84.7	79.5	82.3	80.6	82.4	7067	80.5
1985	6108.6	837.0	83.9	84.4	83.9	83.0	84.6	83.4	7368	84.1
1986	6151.2	839.0	82.8	83.9	82.8	82.9	83.9	83.5	7253	82.8
1987	5950.2	839.0	82.3	83.5	82.3	82.8	81.0	82.9	7206	82.3
1988	7407.1	839.0	100.0	86.6	100.0	86.0	100.5	86.2	8784	100.0
1989	5443.4	839.0	74.6	84.7	74.6	84.2	74.1	84.3	6531	74.6
1990	5341.5	839.0	74.1	83.3	74.1	82.8	72.7	82.7	6487	74.1
1991	7428.7	839.0	100.0	85.3	100.0	84.9	101.1	84.9	8760	100.0
1992	5431.2	839.0	75.1	84.2	75.1	83.9	73.7	83.7	6598	75.1
1993	4719.9	839.0	76.4	83.4	76.4	83.1	64.2	81.8	6687	76.3
1994	5607.4	839.0	79.6	83.1	79.6	82.8	76.3	81.3	6971	79.6
1995	5295.9	839.0	75.0	82.4	75.0	82.2	72.1	80.6	6570	75.0
1996	6984.8	839.0	96.2	83.5	96.2	83.2	94.8	81.7	8444	96.1
1997	6498.9	839.0	88.6	83.8	88.6	83.6	88.4	82.1	7756	88.5
1998	6739.5	839.0	91.4	84.3	91.4	84.1	91.7	82.7	8009	91.4
1999	7213.0	839.0	98.0	85.2	98.0	85.0	98.1	83.7	8583	98.0
2000	6804.3	839.0	91.6	85.5	91.6	85.4	92.3	84.2	8041	91.5
2001	6707.5	839.0	91.1	85.8	91.1	85.7	91.3	84.6	7979	91.1
2002	7425.0	839.0	99.8	86.6	99.8	86.4	101.0	85.4	8742	99.8
2003	5891.3	839.0	81.3	86.3	81.3	86.1	80.2	85.2	7120	81.3
2004	6781.4	839.0	98.2	86.9	91.8	86.4	92.0	85.5	8059	91.7
2005	6283.1	839.0	87.9	86.9	86.8	86.4	85.5	85.5	7602	86.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		46			295	
B. Refuelling without a maintenance					3	
C. Inspection, maintenance or repair combined with refuelling	986			712		
D. Inspection, maintenance or repair without refuelling				33	18	
E. Testing of plant systems or components				2	0	
H. Nuclear regulatory requirements				0		1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				0	26	10
L. Human factor related		28				
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			94			24
Subtotal	986	74	94	747	342	35
Total		1154			1124	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		33
14. Safety Systems		15
15. Reactor Cooling Systems		128
17. Safety I&C Systems (excluding reactor I&C)		4
31. Turbine and auxiliaries		44
32. Feedwater and Main Steam System	46	48
33. Circulating Water System		0
41. Main Generator Systems		18
42. Electrical Power Supply Systems		2
Total	46	292

US-280 SURRY-1

Operator: DOMIN (DOMINION VIRGINIA POWER)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 810.0 MW(e)
Design Net Capacity: 788.0 MW(e)
Design Discharge Burnup: 48000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6746.6 GW(e).h
Energy Availability Factor: 95.6%
Load Factor: 95.1%
Operating Factor: 95.6%
Energy Unavailability Factor: 4.4%
Total Off-line Time: 384 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	603.9	436.8	605.1	583.8	602.1	580.0	593.7	594.7	576.6	382.5	583.4	603.9	6746.6
EAF (%)	100.0	81.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	65.0	100.0	100.0	95.6
UCF (%)	100.0	81.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	65.0	100.0	100.0	95.6
LF (%)	100.2	80.3	100.4	100.1	99.9	99.4	98.5	98.7	98.9	63.5	100.0	100.2	95.1
OF (%)	100.0	81.7	100.0	99.9	100.0	100.0	100.0	100.0	100.0	65.1	100.0	100.0	95.6
EUF (%)	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0	0.0	4.4
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0	0.0	4.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Jun 1968	Lifetime Generation:	162578.8 GW(e).h
Date of First Criticality:	01 Jul 1972	Cumulative Energy Availability Factor:	73.1%
Date of Grid Connection:	04 Jul 1972	Cumulative Load Factor:	71.1%
Date of Commercial Operation:	22 Dec 1972	Cumulative Unit Capability Factor:	73.1%
		Cumulative Energy Unavailability Factor:	26.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	280.7	824.0	100.0	100.0	100.0	100.0	45.8	45.8	496	66.7
1973	3479.7	788.0	61.9	65.0	61.9	65.0	50.4	50.0	5377	61.4
1974	3318.1	788.0	54.8	60.1	54.8	60.1	48.1	49.1	4800	54.8
1975	3858.4	788.0	56.1	58.8	56.1	58.8	56.0	51.3	5343	61.2
1976	4396.8	788.0	63.6	60.0	63.6	60.0	63.5	54.3	6010	68.4
1977	5023.9	776.0	74.0	62.7	74.0	62.7	73.9	58.1	6661	76.0
1978	4704.2	775.0	69.3	63.8	69.3	63.8	69.3	59.9	6291	71.8
1979	2255.1	775.0	33.2	59.5	33.2	59.5	33.2	56.2	3045	34.8
1980	2472.6	775.0	42.2	57.4	42.2	57.4	36.3	53.8	3762	42.8
1981	2377.4	775.0	39.0	55.4	39.0	55.4	35.0	51.7	3403	38.8
1982	5483.1	775.0	89.2	58.7	89.2	58.7	80.8	54.6	7776	88.8
1983	3517.1	775.0	56.4	58.5	56.3	58.5	51.8	54.3	5010	57.2
1984	3334.1	775.0	58.1	58.5	58.1	58.5	49.0	53.9	5138	58.5
1985	5618.3	781.0	89.3	60.8	89.3	60.8	82.3	56.1	7827	89.3
1986	4488.6	781.0	68.1	61.3	68.1	61.3	65.6	56.7	6013	68.6
1987	4633.4	781.0	70.1	61.9	70.1	61.9	67.7	57.5	6113	69.8
1988	2685.0	781.0	18.7	59.2	18.7	59.2	39.1	56.3	3632	41.3
1989	3170.5	781.0	46.8	58.5	46.8	58.5	46.3	55.7	4217	48.1
1990	4772.2	781.0	74.9	59.4	74.9	59.4	69.8	56.5	6655	76.0
1991	6590.9	781.0	100.0	61.5	100.0	61.5	96.3	58.6	8760	100.0
1992	5223.8	781.0	79.6	62.4	79.6	62.4	76.1	59.5	7033	80.1
1993	6229.2	781.0	95.9	64.0	95.9	64.0	91.1	61.0	8402	95.9
1994	4881.9	781.0	74.3	64.5	74.3	64.5	71.4	61.4	6560	74.9
1995	5747.0	801.0	85.4	65.4	85.4	65.4	83.6	62.4	7505	85.7
1996	7137.8	801.0	100.0	66.9	100.0	66.9	101.4	64.1	8784	100.0
1997	5640.5	801.0	80.7	67.4	80.7	67.4	80.4	64.7	7067	80.7
1998	5752.4	801.0	81.9	68.0	81.9	68.0	82.0	65.4	7170	81.8
1999	7116.2	801.0	100.0	69.2	100.0	69.2	101.4	66.8	8760	100.0
2000	6548.4	801.0	93.2	70.1	93.2	70.1	93.1	67.7	8188	93.2
2001	5941.6	810.0	84.3	70.6	84.3	70.6	83.7	68.3	7380	84.2
2002	7149.5	810.0	100.0	71.6	100.0	71.6	100.8	69.4	8760	100.0
2003	5419.8	810.0	77.0	71.8	77.0	71.8	76.4	69.6	6741	77.0
2004	6457.1	810.0	90.5	72.4	90.5	72.4	90.8	70.3	7943	90.4
2005	6746.6	810.0	95.6	73.1	95.6	73.1	95.1	71.1	8376	95.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		382			605	
B. Refuelling without a maintenance					21	
C. Inspection, maintenance or repair combined with refuelling	877					
D. Inspection, maintenance or repair without refuelling	453				1	
E. Testing of plant systems or components	1				0	
F. Major back-fitting, refurbishment or upgrading activities with refuelling	0					
H. Nuclear regulatory requirements					62	159
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)	1				133	0
Subtotal	0	382	0	1332	822	159
Total		382			2313	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		0
12. Reactor I&C Systems		31
13. Reactor Auxiliary Systems		7
14. Safety Systems		5
15. Reactor Cooling Systems	260	211
16. Steam generation systems		63
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		23
32. Feedwater and Main Steam System	122	98
41. Main Generator Systems		8
42. Electrical Power Supply Systems		96
XX. Miscellaneous Systems		6
Total	382	550

US-281 SURRY-2

Operator: DOMIN (DOMINION VIRGINIA POWER)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 815.0 MW(e)
Design Net Capacity: 788.0 MW(e)
Design Discharge Burnup: 48000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6488.5 GW(e).h
Energy Availability Factor: 91.9%
Load Factor: 90.9%
Operating Factor: 91.8%
Energy Unavailability Factor: 8.1%
Total Off-line Time: 715 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	606.6	546.8	606.3	446.1	142.7	581.6	595.9	594.6	578.2	601.4	582.6	605.7	6488.5
EAF (%)	100.0	100.0	100.0	76.7	26.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.9
UCF (%)	100.0	100.0	100.0	76.7	26.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.9
LF (%)	100.0	99.8	100.0	76.0	23.5	99.1	98.3	98.1	98.5	99.1	99.3	99.9	90.9
OF (%)	100.0	100.0	100.0	76.5	26.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91.8
EUF (%)	0.0	0.0	0.0	23.3	73.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
PUF (%)	0.0	0.0	0.0	23.3	73.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Jun 1968	Lifetime Generation:	161973.8 GW(e).h
Date of First Criticality:	07 Mar 1973	Cumulative Energy Availability Factor:	73.7%
Date of Grid Connection:	10 Mar 1973	Cumulative Load Factor:	71.6%
Date of Commercial Operation:	01 May 1973	Cumulative Unit Capability Factor:	73.8%
		Cumulative Energy Unavailability Factor:	26.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	3064.7	788.0	77.9	77.9	77.9	77.9	66.1	66.1	4533	77.1
1974	2660.5	788.0	44.0	57.6	44.0	57.6	38.5	49.6	3854	44.0
1975	5053.1	788.0	73.3	63.5	73.3	63.5	73.2	58.5	6967	79.5
1976	3343.4	788.0	48.3	59.3	48.3	59.3	48.3	55.7	4585	52.2
1977	4457.3	776.0	65.6	60.7	65.6	60.7	65.6	57.8	5980	68.3
1978	5372.0	775.0	79.1	63.9	79.1	63.9	79.1	61.5	7244	82.7
1979	611.5	775.0	9.0	55.7	9.0	55.7	9.0	53.7	818	9.3
1980	2241.6	775.0	36.0	53.2	36.0	53.2	32.9	51.0	3139	35.7
1981	5150.3	775.0	82.4	56.5	79.6	56.2	75.9	53.9	6972	79.6
1982	5492.2	775.0	88.7	59.8	88.7	59.5	80.9	56.6	7729	88.2
1983	4086.1	775.0	65.0	60.3	65.0	60.0	60.2	57.0	5729	65.4
1984	5209.4	775.0	83.3	62.3	83.3	62.0	76.5	58.6	7327	83.4
1985	4072.4	775.0	65.8	62.5	65.8	62.3	60.0	58.7	5857	66.9
1986	4498.9	781.0	68.7	63.0	68.7	62.8	65.8	59.3	6072	69.3
1987	4791.0	781.0	73.6	63.7	73.6	63.5	70.0	60.0	6456	73.7
1988	3570.9	781.0	56.6	63.3	56.6	63.1	52.1	59.5	4993	56.8
1989	893.6	781.0	13.3	60.3	13.3	60.1	13.1	56.7	1355	15.5
1990	5837.8	781.0	84.8	61.6	84.8	61.5	85.3	58.3	7919	90.4
1991	3985.2	781.0	66.6	61.9	66.6	61.8	58.3	58.3	5886	67.2
1992	6426.5	781.0	96.3	63.7	96.3	63.5	93.7	60.1	8470	96.4
1993	4541.7	781.0	71.0	64.0	71.0	63.9	66.4	60.4	6283	71.7
1994	6261.0	781.0	94.1	65.4	94.1	65.3	91.5	61.9	8251	94.2
1995	5517.4	801.0	80.6	66.1	80.6	66.0	80.0	62.7	7087	80.9
1996	6081.5	801.0	85.9	66.9	85.9	66.8	86.4	63.7	7539	85.8
1997	6451.3	801.0	91.7	68.0	91.7	67.9	91.9	64.9	8034	91.7
1998	7178.9	801.0	100.0	69.3	100.0	69.1	102.3	66.4	8760	100.0
1999	5874.8	801.0	85.6	69.9	85.6	69.8	83.7	67.0	7493	85.5
2000	6539.4	801.0	91.3	70.7	91.3	70.6	92.9	68.0	8022	91.3
2001	6720.7	815.0	93.7	71.5	93.7	71.4	94.1	68.9	8203	93.6
2002	6523.7	815.0	91.0	72.2	91.0	72.1	91.4	69.7	7966	90.9
2003	5612.1	815.0	78.3	72.4	78.3	72.3	78.6	70.0	6861	78.3
2004	7051.7	815.0	98.0	73.2	98.0	73.1	98.5	70.9	8606	98.0
2005	6488.5	815.0	91.9	73.8	91.9	73.7	90.9	71.6	8046	91.8

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1973 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					595	
B. Refuelling without a maintenance					20	
C. Inspection, maintenance or repair combined with refuelling	713			1300	0	
D. Inspection, maintenance or repair without refuelling				257		
E. Testing of plant systems or components				0		
F. Major back-fitting, refurbishment or upgrading activities with refuelling				1		
H. Nuclear regulatory requirements					20	7
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				6	0	
Subtotal	713	0	0	1564	635	7
Total	713			2206		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1973 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		27
13. Reactor Auxiliary Systems		4
14. Safety Systems		75
15. Reactor Cooling Systems		15
16. Steam generation systems		150
31. Turbine and auxiliaries		125
32. Feedwater and Main Steam System		134
35. All other I&C Systems		2
41. Main Generator Systems		6
42. Electrical Power Supply Systems		28
XX. Miscellaneous Systems		4
Total	0	570

US-387 SUSQUEHANNA-1

Operator: PP&L (PENNSYLVANIA POWER & LIGHT CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power
at the beginning of 2005: 1105.0 MW(e)

Design Net Capacity: 1065.0 MW(e)

Design Discharge Burnup: 36000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9442.6 GW(e).h

Energy Availability Factor: 95.4%

Load Factor: 97.5%

Operating Factor: 95.4%

Energy Unavailability Factor: 4.6%

Total Off-line Time: 403 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	869.2	768.7	868.3	828.9	835.5	801.6	806.9	824.5	811.8	750.0	412.5	864.8	9442.6
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.3	54.2	100.0	95.4
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.3	54.2	100.0	95.4
LF (%)	105.7	103.5	105.6	104.2	101.6	100.8	98.1	100.3	102.0	91.2	51.9	105.2	97.5
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	90.3	54.2	100.0	95.4
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	45.8	0.0	4.6
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	45.8	0.0	4.6
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1973 Lifetime Generation: 171537.6 GW(e).h

Date of First Criticality: 10 Sep 1982 Cumulative Energy Availability Factor: 82.6%

Date of Grid Connection: 16 Nov 1982 Cumulative Load Factor: 80.8%

Date of Commercial Operation: 08 Jun 1983 Cumulative Unit Capability Factor: 82.7%

 Cumulative Energy Unavailability Factor: 17.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1983	3536.4	1034.0	76.3	76.3	76.3	76.3	66.6	66.6	3766	73.3
1984	6088.1	1032.0	74.4	75.1	72.0	73.6	67.2	66.9	6377	72.6
1985	5286.4	1032.0	60.4	69.4	60.4	68.5	58.5	63.7	5469	62.4
1986	5839.2	1032.0	66.8	68.7	66.8	68.0	64.6	63.9	5992	68.4
1987	6132.9	1032.0	70.7	69.1	70.7	68.6	67.8	64.8	6331	72.3
1988	8410.1	1032.0	93.1	73.4	93.1	73.0	92.8	69.8	8206	93.4
1989	6483.9	1032.0	72.1	73.2	72.1	72.9	71.7	70.1	6447	73.6
1990	6446.7	1033.0	73.1	73.2	73.1	72.9	71.2	70.2	6528	74.5
1991	8821.6	1040.0	98.0	76.1	98.0	75.8	97.2	73.4	8596	98.1
1992	6400.3	1040.0	73.6	75.9	73.6	75.6	70.1	73.0	6568	74.8
1993	5232.4	1040.0	57.5	74.1	57.5	73.9	57.4	71.6	5205	59.4
1994	8414.5	1040.0	94.2	75.9	94.2	75.6	92.4	73.4	8249	94.2
1995	7432.3	1090.0	81.1	76.3	81.1	76.1	79.0	73.8	7126	81.3
1996	7752.9	1090.0	84.7	76.9	84.7	76.8	81.0	74.4	7434	84.6
1997	9085.3	1090.0	94.5	78.2	94.5	78.0	95.2	75.9	8274	94.5
1998	7652.8	1090.0	81.5	78.4	81.5	78.3	80.1	76.2	7015	80.1
1999	8814.5	1090.0	94.0	79.4	94.0	79.2	92.3	77.2	8234	94.0
2000	8180.6	1090.0	86.5	79.8	86.5	79.7	85.4	77.6	7598	86.5
2001	9413.0	1090.0	99.5	80.9	99.5	80.8	98.6	78.8	8718	99.5
2002	8026.6	1105.0	85.7	81.2	85.7	81.0	83.4	79.1	7493	85.5
2003	9359.9	1105.0	98.0	82.0	98.0	81.9	96.7	79.9	8585	98.0
2004	8027.0	1135.0	84.1	82.1	84.1	82.0	81.2	80.0	7359	83.8
2005	9442.6	1105.0	95.4	82.7	95.4	82.6	97.5	80.8	8357	95.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					276	
B. Refuelling without a maintenance					27	
C. Inspection, maintenance or repair combined with refuelling				921		
D. Inspection, maintenance or repair without refuelling	402			71	19	
E. Testing of plant systems or components				69		
H. Nuclear regulatory requirements						32
J. Grid failure or grid unavailability						8
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				84	44	
Subtotal	402	0	0	1145	366	40
Total	402			1551		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		11
13. Reactor Auxiliary Systems		1
14. Safety Systems		20
15. Reactor Cooling Systems		42
17. Safety I&C Systems (excluding reactor I&C)		10
31. Turbine and auxiliaries		91
32. Feedwater and Main Steam System		17
33. Circulating Water System		0
35. All other I&C Systems		4
41. Main Generator Systems		13
42. Electrical Power Supply Systems		23
XX. Miscellaneous Systems		31
Total	0	263

US-388 SUSQUEHANNA-2

Operator: PP&L (PENNSYLVANIA POWER & LIGHT CO.)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR

Net Reference Unit Power at the beginning of 2005: 1140.0 MW(e)

Design Net Capacity: 1065.0 MW(e)

Design Discharge Burnup: 36000 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8885.7 GW(e).h

Energy Availability Factor: 90.2%

Load Factor: 89.0%

Operating Factor: 90.2%

Energy Unavailability Factor: 9.8%

Total Off-line Time: 861 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	858.2	617.2	179.6	661.2	854.2	673.5	837.6	836.5	808.9	858.5	835.8	864.5	8885.7
EAF (%)	100.0	89.3	25.3	83.1	100.0	84.9	100.0	100.0	100.0	100.0	100.0	100.0	90.2
UCF (%)	100.0	89.3	25.3	83.1	100.0	84.9	100.0	100.0	100.0	100.0	100.0	100.0	90.2
LF (%)	101.2	80.6	21.2	80.5	100.7	82.1	98.8	98.6	98.5	101.1	101.8	101.9	89.0
OF (%)	100.0	89.3	25.1	82.9	100.0	84.9	100.0	100.0	100.0	100.0	100.0	100.0	90.2
EUF (%)	0.0	10.7	74.7	16.9	0.0	15.1	0.0	0.0	0.0	0.0	0.0	0.0	9.8
PUF (%)	0.0	10.7	74.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
UCLF (%)	0.0	0.0	0.0	16.9	0.0	15.1	0.0	0.0	0.0	0.0	0.0	0.0	2.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1973 Lifetime Generation: 169086.2 GW(e).h

Date of First Criticality: 08 May 1984 Cumulative Energy Availability Factor: 86.6%

Date of Grid Connection: 03 Jul 1984 Cumulative Load Factor: 85.0%

Date of Commercial Operation: 12 Feb 1985 Cumulative Unit Capability Factor: 86.6%

 Cumulative Energy Unavailability Factor: 13.4%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	6954.3	1032.0	90.6	90.6	90.2	90.2	84.1	84.1	6993	87.2
1986	5458.4	1032.0	63.5	76.5	63.5	76.3	60.4	71.7	5730	65.4
1987	8598.4	1032.0	96.0	83.2	96.0	83.0	95.1	79.7	8431	96.2
1988	5915.2	1038.0	66.3	78.9	66.3	78.8	65.1	76.0	5985	68.1
1989	6777.0	1038.0	76.9	78.5	76.9	78.4	74.5	75.7	6745	77.0
1990	8290.7	1039.0	94.4	81.2	94.4	81.1	91.1	78.3	8143	93.0
1991	7041.4	1044.0	78.4	80.8	78.4	80.7	77.2	78.2	6955	79.4
1992	7186.2	1044.0	80.2	80.7	80.2	80.6	78.4	78.2	7119	81.0
1993	8337.9	1044.0	92.3	82.0	92.3	81.9	91.2	79.6	8094	92.4
1994	6909.8	1094.0	74.7	81.2	74.7	81.2	73.5	79.0	6577	75.1
1995	8192.7	1094.0	87.8	81.9	87.8	81.8	85.5	79.6	7691	87.8
1996	9127.2	1094.0	95.0	83.0	95.0	83.0	95.0	81.0	8346	95.0
1997	7732.6	1094.0	82.4	83.0	82.4	82.9	80.7	80.9	7211	82.3
1998	8820.8	1094.0	93.3	83.7	93.3	83.7	92.0	81.8	8172	93.3
1999	7794.7	1094.0	83.0	83.7	83.0	83.7	81.3	81.7	7268	83.0
2000	9347.2	1094.0	97.8	84.6	97.8	84.6	97.3	82.8	8587	97.8
2001	8397.1	1111.0	87.9	84.8	87.9	84.8	86.9	83.0	7693	87.8
2002	9306.2	1111.0	96.4	85.5	96.4	85.4	95.6	83.7	8439	96.3
2003	8654.7	1140.0	88.2	85.6	88.2	85.6	87.2	83.9	7701	87.9
2004	10057.1	1140.0	100.0	86.4	100.0	86.4	100.4	84.8	8784	100.0
2005	8885.7	1140.0	90.2	86.6	90.2	86.6	89.0	85.0	7900	90.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1984 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		230			273	
B. Refuelling without a maintenance					6	
C. Inspection, maintenance or repair combined with refuelling	628			773		
D. Inspection, maintenance or repair without refuelling				24	1	
E. Testing of plant systems or components				87		
J. Grid failure or grid unavailability						1
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					12	
Subtotal	628	230	0	884	292	1
Total		858			1177	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1984 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		21
12. Reactor I&C Systems		9
13. Reactor Auxiliary Systems		7
14. Safety Systems		6
15. Reactor Cooling Systems		20
31. Turbine and auxiliaries		24
32. Feedwater and Main Steam System		32
41. Main Generator Systems	108	29
42. Electrical Power Supply Systems	121	55
XX. Miscellaneous Systems		42
Total	229	245

US-289 THREE MILE ISLAND-1

Operator: EXELON (Exelon Nuclear Co.)

Contractor: B&W (BABCOCK & WILCOX CO.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 786.0 MW(e)
Design Net Capacity: 819.0 MW(e)
Design Discharge Burnup: 29100 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 6755.4 GW(e).h
Energy Availability Factor: 93.0%
Load Factor: 98.1%
Operating Factor: 93.0%
Energy Unavailability Factor: 7.0%
Total Off-line Time: 615 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	634.6	574.7	633.1	603.7	622.4	590.2	606.7	606.1	590.5	432.0	227.9	633.6	6755.4
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	74.2	41.5	100.0	93.0
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	74.2	41.5	100.0	93.0
LF (%)	108.5	108.8	108.3	106.7	106.4	104.3	103.8	103.6	104.3	73.9	40.3	108.4	98.1
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	74.2	41.4	100.0	93.0
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	58.5	0.0	7.0
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	58.5	0.0	7.0
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 May 1968
Date of First Criticality: 05 Jun 1974
Date of Grid Connection: 19 Jun 1974
Date of Commercial Operation: 02 Sep 1974

Lifetime Generation: 151100.4 GW(e).h
Cumulative Energy Availability Factor: 69.9%
Cumulative Load Factor: 69.7%
Cumulative Unit Capability Factor: 85.6%
Cumulative Energy Unavailability Factor: 30.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1974	1992.4	792.0	88.2	88.2	88.2	88.2	85.9	85.9	2584	88.3
1975	5541.6	792.0	79.7	81.8	79.7	81.8	79.9	81.4	7198	82.2
1976	4344.4	792.0	62.5	73.5	62.5	73.5	62.4	73.3	5745	65.4
1977	5466.6	792.0	78.7	75.1	78.7	75.1	78.8	74.9	7087	80.9
1978	5681.9	788.0	82.0	76.7	82.0	76.7	82.3	76.6	7454	85.1
1979	888.7	776.0	12.9	64.9	12.9	64.9	13.1	64.9	1128	12.9
1980	0.0	776.0	100.0	70.4	0.0	54.8	0.0	54.8	0	0.0
1981	0.0	776.0	100.0	74.4	0.0	47.4	0.0	47.4	0	0.0
1982	0.0	776.0	100.0	77.4	0.0	41.8	0.0	41.8	0	0.0
1983	0.0	776.0	100.0	79.8	0.0	37.3	0.0	37.3	0	0.0
1984	0.0	776.0	100.0	81.8	0.0	33.8	0.0	33.7	0	0.0
1985	811.7	776.0	37.8	77.9	37.8	34.1	11.9	31.8	1853	21.2
1986	4818.3	776.0	70.8	77.3	70.8	37.1	70.9	35.0	6209	70.9
1987	5034.3	776.0	72.5	77.0	72.5	39.7	74.1	37.9	6351	72.5
1988	5465.4	808.0	76.0	76.9	76.0	42.2	79.4	40.8	6679	76.0
1989	7216.8	808.0	99.5	78.4	99.5	46.1	102.0	44.9	8714	99.5
1990	5316.2	808.0	81.8	78.6	81.8	48.3	75.1	46.8	7123	81.3
1991	5671.2	808.0	86.4	79.1	86.4	50.6	80.1	48.8	7536	86.0
1992	6936.5	786.0	99.5	80.2	99.5	53.3	100.0	51.6	8743	99.5
1993	5962.2	786.0	88.0	80.6	88.0	55.1	86.6	53.4	7702	87.9
1994	6590.9	786.0	95.3	81.3	95.3	57.1	95.7	55.5	8349	95.3
1995	6388.0	786.0	90.5	81.8	90.5	58.6	92.8	57.2	7926	90.5
1996	7100.3	786.0	100.0	82.6	100.0	60.5	102.8	59.3	8784	100.0
1997	5918.8	786.0	87.3	82.8	87.3	61.6	86.0	60.4	7633	87.1
1998	7059.2	786.0	100.0	83.5	100.0	63.2	102.5	62.2	8760	100.0
1999	6328.4	786.0	89.4	83.7	89.4	64.2	91.9	63.3	7827	89.3
2000	7144.9	786.0	100.0	84.4	100.0	65.6	103.5	64.9	8784	100.0
2001	5416.7	786.0	80.3	84.2	80.3	66.1	78.7	65.4	7034	80.3
2002	7313.5	802.0	100.0	84.8	100.0	67.4	104.6	66.8	8760	100.0
2003	6205.1	802.0	86.7	84.8	86.7	68.0	88.3	67.5	7602	86.8
2004	7273.3	802.0	100.0	85.3	100.0	69.1	103.2	68.7	8784	100.0
2005	6755.4	786.0	93.0	85.6	93.0	69.9	98.1	69.7	8145	93.0

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1974 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					132	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	613			607		
D. Inspection, maintenance or repair without refuelling				71	1	
E. Testing of plant systems or components				10	0	
H. Nuclear regulatory requirements					211	1851
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					1	
Subtotal	613	0	0	688	355	1851
Total	613			2894		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1974 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		26
13. Reactor Auxiliary Systems		10
15. Reactor Cooling Systems		33
16. Steam generation systems		7
31. Turbine and auxiliaries		27
32. Feedwater and Main Steam System		6
35. All other I&C Systems		0
41. Main Generator Systems		7
42. Electrical Power Supply Systems		4
XX. Miscellaneous Systems		0
Total	0	120

US-250 TURKEY POINT-3

Operator: FPL (FLORIDA POWER & LIGHT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power
at the beginning of 2005: 693.0 MW(e)
Design Net Capacity: 693.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 5798.9 GW(e).h
Energy Availability Factor: 95.5%
Load Factor: 95.5%
Operating Factor: 95.5%
Energy Unavailability Factor: 4.5%
Total Off-line Time: 398 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	378.7	478.6	536.1	519.6	530.5	508.1	519.9	502.9	506.8	323.0	511.0	483.9	5798.9
EAF (%)	78.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	75.2	100.0	93.1	95.5
UCF (%)	78.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	86.3	100.0	93.1	96.4
LF (%)	73.5	102.8	104.0	104.1	102.9	101.8	100.8	97.5	101.6	62.6	102.4	93.8	95.5
OF (%)	78.4	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	75.3	100.0	93.0	95.5
EUF (%)	21.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.8	0.0	6.9	4.5
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UCLF (%)	21.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	0.0	7.0	3.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.9

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Apr 1967	Lifetime Generation:	141619.9 GW(e).h
Date of First Criticality:	20 Oct 1972	Cumulative Energy Availability Factor:	76.4%
Date of Grid Connection:	02 Nov 1972	Cumulative Load Factor:	70.9%
Date of Commercial Operation:	14 Dec 1972	Cumulative Unit Capability Factor:	76.5%
		Cumulative Energy Unavailability Factor:	23.6%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	75.0	728.0	100.0	100.0	100.0	100.0	13.8	13.8	304	40.9
1973	0.0	666.0	100.0	100.0	100.0	100.0	0.0	1.2	0	0.0
1974	3478.8	666.0	100.0	100.0	100.0	100.0	59.6	29.1	6090	69.5
1975	4376.0	666.0	74.9	91.9	74.9	91.9	75.0	43.9	6948	79.3
1976	4322.0	666.0	73.9	87.5	73.9	87.5	73.9	51.3	6665	75.9
1977	4474.1	666.0	76.6	85.3	76.6	85.3	76.7	56.3	6994	79.8
1978	4502.7	666.0	77.2	84.0	77.2	84.0	77.2	59.7	7087	80.9
1979	2881.6	666.0	49.4	79.1	49.4	79.1	49.4	58.2	4509	51.5
1980	4389.0	657.0	77.9	79.0	77.9	79.0	76.1	60.4	6812	77.6
1981	933.2	646.0	13.2	71.9	13.2	71.9	16.5	55.7	1385	15.8
1982	3771.4	646.0	64.2	71.2	64.2	71.2	66.6	56.8	5612	64.1
1983	4331.0	659.0	73.3	71.4	73.3	71.4	75.0	58.4	6415	73.2
1984	4784.2	666.0	82.6	72.3	82.6	72.3	81.8	60.4	7253	82.6
1985	3421.0	666.0	61.0	71.5	59.7	71.4	58.6	60.2	5224	59.6
1986	4513.1	666.0	77.9	71.9	77.9	71.8	77.4	61.5	6816	77.8
1987	885.3	666.0	17.9	68.3	17.9	68.2	15.2	58.4	1566	17.9
1988	3468.0	666.0	60.6	67.8	60.6	67.8	59.3	58.4	5320	60.6
1989	3605.1	666.0	65.1	67.7	65.1	67.6	61.8	58.6	5696	65.0
1990	3388.4	666.0	59.4	67.2	59.4	67.1	58.1	58.6	5200	59.4
1991	1332.0	666.0	50.0	66.3	50.0	66.2	22.8	56.7	2155	24.6
1992	3428.2	666.0	67.2	66.3	67.2	66.3	58.6	56.8	5896	67.1
1993	5657.3	666.0	96.1	67.8	96.1	67.7	97.0	58.7	8421	96.1
1994	4924.9	666.0	85.8	68.6	85.8	68.5	84.4	59.9	7513	85.8
1995	5219.0	666.0	89.6	69.5	89.6	69.4	89.5	61.2	7846	89.6
1996	5750.8	693.0	96.7	70.6	96.7	70.6	97.3	62.7	8490	96.7
1997	5252.4	693.0	87.0	71.3	87.0	71.3	86.5	63.7	7570	86.4
1998	5408.3	693.0	89.8	72.1	89.0	72.0	89.1	64.7	7757	88.6
1999	6112.3	693.0	99.1	73.1	99.1	73.0	100.7	66.1	8684	99.1
2000	5684.4	693.0	92.5	73.8	92.5	73.7	93.4	67.1	8122	92.5
2001	5526.0	693.0	90.5	74.4	90.5	74.3	91.0	67.9	7923	90.4
2002	6215.4	693.0	100.0	75.3	100.0	75.2	102.4	69.1	8760	100.0
2003	5445.6	693.0	90.6	75.8	90.6	75.7	89.7	69.8	7930	90.5
2004	4734.0	693.0	79.0	75.9	79.0	75.8	77.8	70.1	6934	78.9
2005	5798.9	693.0	96.4	76.5	95.5	76.4	95.5	70.9	8362	95.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		314		0	470	
B. Refuelling without a maintenance					4	
C. Inspection, maintenance or repair combined with refuelling				886		
D. Inspection, maintenance or repair without refuelling				343		
E. Testing of plant systems or components				9	2	
F. Major back-fitting, refurbishment or upgrading activities with refuelling				3		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				303	18	6
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			82			
P. Fire					3	
Z. Others					1	
Subtotal	0	314	82	1544	498	6
Total		396			2048	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		42
13. Reactor Auxiliary Systems		60
14. Safety Systems		22
15. Reactor Cooling Systems		88
16. Steam generation systems		24
17. Safety I&C Systems (excluding reactor I&C)		1
31. Turbine and auxiliaries		42
32. Feedwater and Main Steam System	101	30
33. Circulating Water System		2
35. All other I&C Systems		2
41. Main Generator Systems	212	77
42. Electrical Power Supply Systems		10
XX. Miscellaneous Systems		50
Total	313	450

US-251 TURKEY POINT-4

Operator: FPL (FLORIDA POWER & LIGHT CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 693.0 MW(e)
Design Net Capacity: 693.0 MW(e)
Design Discharge Burnup: 33000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4241.0 GW(e).h
Energy Availability Factor: 71.3%
Load Factor: 69.9%
Operating Factor: 71.3%
Energy Unavailability Factor: 28.7%
Total Off-line Time: 2517 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	534.7	482.3	439.0	93.2	0.0	196.9	250.1	520.8	507.8	389.5	285.2	541.4	4241.0
EAF (%)	100.0	100.0	92.4	30.0	0.0	46.8	52.4	100.0	100.0	72.0	63.4	100.0	71.3
UCF (%)	100.0	100.0	92.4	30.0	0.0	46.8	52.4	100.0	100.0	84.5	63.4	100.0	72.4
LF (%)	103.7	103.6	85.1	18.7	0.0	39.5	48.5	101.0	101.8	75.5	57.2	105.0	69.9
OF (%)	100.0	100.0	92.3	31.4	0.0	45.6	51.9	100.0	100.0	75.1	60.1	100.0	71.3
EUF (%)	0.0	0.0	7.6	70.0	100.0	53.2	47.6	0.0	0.0	28.0	36.6	0.0	28.7
PUF (%)	0.0	0.0	0.0	70.0	100.0	39.9	0.0	0.0	0.0	0.0	0.0	0.0	17.5
UCLF (%)	0.0	0.0	7.6	0.0	0.0	13.3	47.6	0.0	0.0	15.5	36.6	0.0	10.1
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	1.1

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Apr 1967	Lifetime Generation:	139099.0 GW(e).h
Date of First Criticality:	11 Jun 1973	Cumulative Energy Availability Factor:	75.8%
Date of Grid Connection:	21 Jun 1973	Cumulative Load Factor:	72.2%
Date of Commercial Operation:	07 Sep 1973	Cumulative Unit Capability Factor:	75.8%
		Cumulative Energy Unavailability Factor:	24.2%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1973	0.0	666.0	100.0	100.0	100.0	100.0	0.0	0.0	0	0.0
1974	4513.4	728.0	100.0	100.0	100.0	100.0	70.8	54.2	6759	77.2
1975	3991.9	666.0	68.3	87.0	68.3	87.0	68.4	60.1	6172	70.5
1976	3774.8	666.0	64.3	80.3	64.3	80.3	64.5	61.4	5825	66.3
1977	3671.0	666.0	62.7	76.4	62.7	76.4	62.9	61.7	5578	63.7
1978	3791.4	666.0	65.0	74.3	65.0	74.3	65.0	62.3	6693	76.4
1979	3846.6	666.0	65.9	73.0	65.9	73.0	65.9	62.9	6361	72.6
1980	3856.5	657.0	69.4	72.5	69.4	72.5	66.8	63.4	6093	69.4
1981	4507.2	646.0	77.3	73.1	77.3	73.1	79.6	65.3	6801	77.6
1982	3847.2	646.0	66.3	72.4	66.3	72.4	68.0	65.6	5806	66.3
1983	2978.9	659.0	52.4	70.5	52.4	70.5	51.6	64.2	4568	52.1
1984	3084.1	666.0	54.4	69.0	54.4	69.0	52.7	63.2	4774	54.3
1985	5177.9	666.0	89.8	70.7	89.7	70.7	88.8	65.3	7852	89.6
1986	1744.0	666.0	31.9	67.8	31.9	67.8	29.9	62.6	2790	31.8
1987	2657.5	666.0	49.3	66.5	49.3	66.5	45.6	61.4	4314	49.2
1988	3267.7	666.0	56.8	65.9	56.8	65.9	55.9	61.1	4986	56.8
1989	2107.6	666.0	42.0	64.4	42.0	64.4	36.1	59.5	3676	42.0
1990	4384.9	666.0	76.4	65.1	76.4	65.1	75.2	60.4	6692	76.4
1991	808.0	666.0	48.2	64.2	48.2	64.2	13.9	57.9	1335	15.2
1992	4642.3	666.0	81.3	65.1	81.3	65.1	79.4	59.0	7139	81.3
1993	4746.3	666.0	83.1	66.0	83.1	66.0	81.4	60.1	7277	83.1
1994	4844.4	666.0	85.0	66.9	85.0	66.9	83.0	61.2	7437	84.9
1995	5780.1	666.0	98.5	68.3	98.5	68.3	99.1	62.9	8629	98.5
1996	5165.4	693.0	88.6	69.2	88.6	69.2	87.4	63.9	7771	88.5
1997	5442.6	693.0	89.6	70.0	89.6	70.0	89.7	65.0	7809	89.1
1998	6181.5	693.0	100.0	71.3	100.0	71.2	101.8	66.5	8760	100.0
1999	5735.3	693.0	93.4	72.1	93.4	72.1	94.5	67.6	8185	93.4
2000	5591.4	693.0	91.4	72.9	91.4	72.9	91.9	68.6	8028	91.4
2001	6105.3	693.0	98.4	73.8	98.4	73.8	100.6	69.7	8623	98.4
2002	5854.1	693.0	95.6	74.6	95.6	74.5	96.4	70.7	8369	95.5
2003	5562.5	693.0	91.7	75.1	91.7	75.1	91.6	71.4	8033	91.7
2004	6079.2	693.0	98.6	75.9	98.6	75.9	99.9	72.3	8662	98.6
2005	4241.0	693.0	72.4	75.8	71.3	75.8	69.9	72.2	6243	71.3

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1975 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		886			395	
B. Refuelling without a maintenance					13	
C. Inspection, maintenance or repair combined with refuelling	1535			1276		
D. Inspection, maintenance or repair without refuelling				133		
E. Testing of plant systems or components				8		
H. Nuclear regulatory requirements				186		
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					163	0
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			93			
Subtotal	1535	886	93	1603	571	0
Total		2514			2174	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1975 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		8
12. Reactor I&C Systems		23
13. Reactor Auxiliary Systems		3
14. Safety Systems		5
15. Reactor Cooling Systems		112
16. Steam generation systems		115
31. Turbine and auxiliaries	374	56
32. Feedwater and Main Steam System	56	19
33. Circulating Water System		3
35. All other I&C Systems		3
41. Main Generator Systems		1
42. Electrical Power Supply Systems	455	39
Total	885	387

US-271 VERMONT YANKEE

Operator: ENTERGY (ENTERGY NUCLEAR)

Contractor: GE (GENERAL ELECTRIC CO.)

1. Station Details

Type: BWR
Net Reference Unit Power at the beginning of 2005: 506.0 MW(e)
Design Net Capacity: 514.0 MW(e)
Design Discharge Burnup: 33760 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 4106.4 GW(e).h
Energy Availability Factor: 93.8%
Load Factor: 92.6%
Operating Factor: 93.7%
Energy Unavailability Factor: 6.2%
Total Off-line Time: 548 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	365.8	345.0	380.3	362.8	378.1	358.9	326.3	360.5	352.4	265.4	227.8	383.3	4106.4
EAF (%)	100.0	100.0	100.0	100.0	100.0	100.0	90.4	100.0	100.0	67.7	67.4	100.0	93.8
UCF (%)	100.0	100.0	100.0	100.0	100.0	100.0	90.4	100.0	100.0	67.7	67.4	100.0	93.8
LF (%)	97.2	101.4	101.0	99.6	100.4	98.5	86.7	95.7	96.7	70.5	62.5	101.8	92.6
OF (%)	100.0	100.0	100.0	99.9	100.0	100.0	90.3	100.0	100.0	70.8	64.2	100.0	93.7
EUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	32.3	32.6	0.0	6.2
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.3	32.6	0.0	5.4
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.8
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start:	01 Dec 1967	Lifetime Generation:	118631.3 GW(e).h
Date of First Criticality:	24 Mar 1972	Cumulative Energy Availability Factor:	83.0%
Date of Grid Connection:	20 Sep 1972	Cumulative Load Factor:	80.7%
Date of Commercial Operation:	30 Nov 1972	Cumulative Unit Capability Factor:	83.1%
		Cumulative Energy Unavailability Factor:	17.0%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1972	291.4	537.0	100.0	100.0	100.0	100.0	37.1	37.1	963	65.8
1973	1814.5	468.0	70.3	75.1	70.3	75.1	44.3	43.1	5354	61.1
1974	2482.7	514.0	55.4	65.6	55.4	65.6	55.1	48.9	6495	74.1
1975	3561.3	504.0	80.5	70.4	80.5	70.4	80.7	59.0	7689	87.8
1976	3260.2	504.0	73.5	71.1	73.5	71.1	73.6	62.6	6776	77.1
1977	3537.9	504.0	79.8	72.8	79.8	72.8	80.1	66.0	7456	85.1
1978	3240.7	504.0	73.4	72.9	73.4	72.9	73.4	67.2	6649	75.9
1979	3449.0	504.0	77.4	73.6	77.4	73.6	78.1	68.7	7194	82.1
1980	2978.8	504.0	73.2	73.5	72.0	73.4	67.3	68.6	6271	71.4
1981	3568.5	504.0	84.8	74.7	84.8	74.6	80.8	69.9	7407	84.6
1982	4174.3	504.0	96.7	76.9	96.7	76.8	94.5	72.3	8406	96.0
1983	2874.5	504.0	69.8	76.3	69.8	76.2	65.1	71.7	6072	69.3
1984	3335.8	504.0	79.0	76.5	79.0	76.4	75.3	72.0	6933	78.9
1985	2999.4	504.0	71.8	76.1	71.8	76.1	67.9	71.7	6287	71.8
1986	2058.4	504.0	48.9	74.2	48.9	74.1	46.6	69.9	4280	48.9
1987	3536.4	504.0	83.2	74.8	83.2	74.7	80.1	70.6	7288	83.2
1988	4113.8	504.0	94.9	76.1	94.9	76.0	92.9	72.0	8333	94.9
1989	3606.8	504.0	84.4	76.5	84.4	76.5	81.7	72.5	7372	84.2
1990	3616.3	504.0	84.7	77.0	84.7	76.9	81.9	73.1	7392	84.4
1991	4108.3	504.0	95.1	77.9	93.7	77.8	93.1	74.1	8200	93.6
1992	3734.6	504.0	87.6	78.4	87.6	78.3	84.4	74.6	7680	87.4
1993	3372.1	504.0	78.6	78.4	78.6	78.3	76.4	74.7	6860	78.3
1994	4315.6	504.0	98.2	79.3	98.2	79.2	97.7	75.7	8600	98.2
1995	3858.5	510.0	86.6	79.6	86.6	79.5	86.8	76.2	7554	86.2
1996	3798.8	510.0	84.9	79.9	84.9	79.8	84.8	76.6	7422	84.5
1997	4266.9	510.0	95.6	80.5	95.6	80.4	95.5	77.3	8358	95.4
1998	3358.7	510.0	76.6	80.3	76.6	80.2	75.2	77.3	6690	76.4
1999	4059.1	510.0	90.5	80.7	90.5	80.6	90.9	77.8	7936	90.6
2000	4548.1	510.0	99.5	81.4	99.5	81.3	101.5	78.6	8738	99.5
2001	4171.1	510.0	93.1	81.8	93.1	81.7	93.4	79.1	8145	93.0
2002	3962.6	510.0	91.0	82.1	91.0	82.0	88.7	79.4	7966	90.9
2003	4444.2	510.0	98.3	82.6	98.3	82.6	99.5	80.1	8612	98.3
2004	3858.0	510.0	86.6	82.8	86.6	82.7	86.1	80.3	7599	86.5
2005	4106.4	506.0	93.8	83.1	93.8	83.0	92.6	80.7	8212	93.7

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1972 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		71			260	
B. Refuelling without a maintenance					7	
C. Inspection, maintenance or repair combined with refuelling	475			930		
D. Inspection, maintenance or repair without refuelling				125	0	
E. Testing of plant systems or components				7	12	
H. Nuclear regulatory requirements						6
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)				23		5
Subtotal	475	71	0	1085	279	11
Total		546			1375	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1972 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		9
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		18
14. Safety Systems		51
15. Reactor Cooling Systems		44
31. Turbine and auxiliaries		43
32. Feedwater and Main Steam System		20
42. Electrical Power Supply Systems	71	63
XX. Miscellaneous Systems		2
Total	71	256

US-395 VIRGIL C. SUMMER-1

Operator: SCEG (SOUTH CAROLINA ELECTRIC & GAS CO.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
 Net Reference Unit Power
 at the beginning of 2005: 966.0 MW(e)
 Design Net Capacity: 900.0 MW(e)
 Design Discharge Burnup: 38900 MW.d/t
 Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7469.4 GW(e).h
 Energy Availability Factor: 88.4%
 Load Factor: 88.3%
 Operating Factor: 88.4%
 Energy Unavailability Factor: 11.6%
 Total Off-line Time: 1015 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	733.2	662.0	732.2	500.5	0.0	639.1	711.4	616.3	701.3	731.6	707.3	734.5	7469.4
EAF (%)	100.0	100.0	100.0	73.3	0.0	96.8	100.0	92.8	100.0	100.0	100.0	100.0	88.4
UCF (%)	100.0	100.0	100.0	73.3	0.0	96.8	100.0	92.8	100.0	100.0	100.0	100.0	88.4
LF (%)	102.0	102.0	101.9	72.0	0.0	91.9	99.0	85.8	100.8	101.7	101.7	102.2	88.3
OF (%)	100.0	100.0	100.0	73.2	0.0	96.7	100.0	92.7	100.0	100.0	100.0	100.0	88.4
EUF (%)	0.0	0.0	0.0	26.7	100.0	3.2	0.0	7.2	0.0	0.0	0.0	0.0	11.6
PUF (%)	0.0	0.0	0.0	26.7	100.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	10.9
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.6
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Mar 1973 Lifetime Generation: 147426.5 GW(e).h
 Date of First Criticality: 22 Oct 1982 Cumulative Energy Availability Factor: 83.7%
 Date of Grid Connection: 16 Nov 1982 Cumulative Load Factor: 80.7%
 Date of Commercial Operation: 01 Jan 1984 Cumulative Unit Capability Factor: 83.7%
 Cumulative Energy Unavailability Factor: 16.3%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1984	4208.6	900.0	61.3	61.3	61.3	61.3	53.2	53.2	5362	61.0
1985	5235.1	885.0	71.6	66.4	71.6	66.4	67.5	60.3	6272	71.6
1986	7160.6	885.0	95.3	76.0	95.3	76.0	92.4	70.9	8346	95.3
1987	5168.1	885.0	70.1	74.5	70.1	74.5	66.7	69.9	6135	70.0
1988	5068.2	885.0	67.8	73.2	67.8	73.2	65.2	68.9	5952	67.8
1989	5412.8	885.0	80.8	74.4	80.8	74.4	69.8	69.1	7073	80.7
1990	6117.3	885.0	82.9	75.6	82.9	75.6	78.9	70.5	7261	82.9
1991	5346.1	885.0	80.7	76.3	80.7	76.3	69.0	70.3	7065	80.7
1992	7515.2	885.0	97.1	78.6	97.1	78.6	96.7	73.2	8532	97.1
1993	6109.5	885.0	82.9	79.0	82.9	79.0	78.8	73.8	7258	82.9
1994	4456.0	885.0	68.8	78.1	68.8	78.1	57.5	72.3	6022	68.7
1995	7561.4	885.0	96.8	79.6	96.8	79.6	97.5	74.4	8478	96.8
1996	7155.1	945.0	89.6	80.4	89.6	80.4	88.2	75.5	7829	89.1
1997	7267.9	954.0	89.9	81.2	89.9	81.2	87.5	76.4	7805	89.1
1998	8188.9	945.0	98.7	82.4	98.7	82.4	98.1	77.9	8638	98.6
1999	7376.3	954.0	88.8	82.8	88.8	82.8	88.3	78.6	7779	88.8
2000	6358.8	966.0	76.2	82.4	76.2	82.4	75.0	78.4	6688	76.1
2001	6757.5	966.0	81.0	82.3	81.0	82.3	79.9	78.5	7095	81.0
2002	7379.5	966.0	87.3	82.6	87.3	82.6	87.2	79.0	7645	87.3
2003	7352.1	966.0	86.4	82.8	86.4	82.8	86.9	79.4	7564	86.3
2004	8243.3	966.0	95.8	83.5	95.8	83.5	97.1	80.3	8413	95.8
2005	7469.4	966.0	88.4	83.7	88.4	83.7	88.3	80.7	7746	88.4

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1983 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		53		10	159	
B. Refuelling without a maintenance					12	
C. Inspection, maintenance or repair combined with refuelling	958			1022		
D. Inspection, maintenance or repair without refuelling				186		
E. Testing of plant systems or components	1			3	0	
J. Grid failure or grid unavailability						0
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					42	1
Subtotal	959	53	0	1221	213	1
Total	1012			1435		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1983 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		16
14. Safety Systems		5
15. Reactor Cooling Systems		55
16. Steam generation systems		15
31. Turbine and auxiliaries		14
32. Feedwater and Main Steam System	53	14
35. All other I&C Systems		1
41. Main Generator Systems		19
42. Electrical Power Supply Systems		13
Total	53	152

US-424 VOGTLE-1**Operator:** SOUTH (Southern Nuclear Operating Co.)**Contractor:** WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)**1. Station Details**

Type: PWR

Net Reference Unit Power at the beginning of 2005: 1152.0 MW(e)

Design Net Capacity: 1122.0 MW(e)

Design Discharge Burnup: 36400 MW.d/t

Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 9220.1 GW(e).h

Energy Availability Factor: 90.9%

Load Factor: 91.4%

Operating Factor: 90.9%

Energy Unavailability Factor: 9.1%

Total Off-line Time: 796 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	809.6	794.6	320.0	527.3	847.3	835.3	858.8	859.7	833.3	809.0	846.7	878.5	9220.1
EAF (%)	93.7	100.0	38.7	65.3	100.0	100.0	100.0	100.0	100.0	94.5	100.0	100.0	90.9
UCF (%)	93.8	100.0	38.7	65.4	100.0	100.0	100.0	100.0	100.0	94.5	100.0	100.0	90.9
LF (%)	94.5	102.6	37.3	63.6	98.9	100.7	100.2	100.3	100.5	94.4	102.1	102.5	91.4
OF (%)	93.7	100.0	38.8	66.4	98.4	100.0	100.0	100.0	100.0	94.6	100.0	100.0	90.9
EUF (%)	6.3	0.0	61.3	34.7	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	9.1
PUF (%)	0.0	0.0	61.3	29.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
UCLF (%)	6.3	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	1.4
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation**5. Historical Summary**

Date of Construction Start: 01 Aug 1976 **Lifetime Generation:** 159985.6 GW(e).h

Date of First Criticality: 09 Mar 1987 **Cumulative Energy Availability Factor:** 89.5%

Date of Grid Connection: 27 Mar 1987 **Cumulative Load Factor:** 89.2%

Date of Commercial Operation: 01 Jun 1987 **Cumulative Unit Capability Factor:** 89.6%

Cumulative Energy Unavailability Factor: 10.5%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1987			Data not provided							
1988	6799.7	1079.0	74.2	74.2	74.2	74.2	71.7	71.7	6569	74.8
1989	8709.4	1083.0	94.2	84.2	94.2	84.2	91.8	81.8	8275	94.5
1990	7353.1	1079.0	78.4	82.3	78.4	82.3	77.8	80.5	6980	79.7
1991	7501.7	1100.0	78.9	81.4	78.9	81.4	77.9	79.8	7016	80.1
1992	9383.5	1105.0	96.9	84.6	96.9	84.6	96.7	83.2	8523	97.0
1993	8600.7	1158.0	86.3	84.9	86.3	84.9	85.7	83.7	7577	86.5
1994	8817.2	1169.0	89.6	85.6	89.6	85.6	86.1	84.0	7847	89.6
1995	9984.0	1162.0	99.2	87.4	98.4	87.3	98.1	85.9	8621	98.4
1996	8149.8	1162.0	81.5	86.7	81.5	86.6	79.8	85.2	7162	81.5
1997	8270.1	1162.0	81.9	86.2	81.9	86.1	81.2	84.8	7167	81.8
1998	10216.9	1162.0	99.8	87.5	99.8	87.4	100.4	86.2	8738	99.7
1999	9425.9	1151.0	92.6	87.9	92.6	87.8	93.3	86.8	8108	92.6
2000	9196.6	1148.0	90.7	88.1	90.7	88.1	91.2	87.2	7963	90.7
2001	10144.4	1148.0	98.9	88.9	98.9	88.8	100.9	88.2	8665	98.9
2002	8638.8	1148.0	85.3	88.6	85.3	88.6	85.9	88.0	7469	85.3
2003	9411.5	1152.0	92.5	88.9	92.5	88.8	93.3	88.3	8097	92.4
2004	10162.3	1152.0	99.0	89.5	99.0	89.5	100.4	89.1	8694	99.0
2005	9220.1	1152.0	90.9	89.6	90.9	89.5	91.4	89.2	7964	90.9

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1988 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		124			147	
B. Refuelling without a maintenance					16	
C. Inspection, maintenance or repair combined with refuelling	668			643		
D. Inspection, maintenance or repair without refuelling				32		
E. Testing of plant systems or components				3		
H. Nuclear regulatory requirements					10	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					2	3
Z. Others				2		
Subtotal	668	124	0	680	175	3
Total		792			858	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1988 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		5
14. Safety Systems		31
15. Reactor Cooling Systems		41
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		2
32. Feedwater and Main Steam System	78	15
35. All other I&C Systems		3
41. Main Generator Systems	46	25
42. Electrical Power Supply Systems		14
Total	124	138

US-425 VOGTLE-2

Operator: SOUTH (Southern Nuclear Operating Co.)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1149.0 MW(e)
Design Net Capacity: 1101.0 MW(e)
Design Discharge Burnup: 36400 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8592.9 GW(e).h
Energy Availability Factor: 85.2%
Load Factor: 85.4%
Operating Factor: 85.2%
Energy Unavailability Factor: 14.8%
Total Off-line Time: 1296 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	878.9	793.5	875.0	842.5	634.0	545.6	854.8	855.7	465.4	416.9	845.8	584.8	8592.9
EAF (%)	100.0	100.0	100.0	100.0	71.0	74.6	100.0	100.0	56.7	52.9	100.0	68.9	85.2
UCF (%)	100.0	100.0	100.0	100.0	71.0	74.6	100.0	100.0	56.7	52.9	100.0	68.9	85.2
LF (%)	102.8	102.8	102.4	101.8	74.2	66.0	100.0	100.1	56.3	48.8	102.2	68.4	85.4
OF (%)	100.0	100.0	100.0	99.9	74.1	71.3	100.0	100.0	57.1	52.4	100.0	68.8	85.2
EUF (%)	0.0	0.0	0.0	0.0	29.0	25.4	0.0	0.0	43.3	47.1	0.0	31.1	14.8
PUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.3	47.1	0.0	0.0	7.6
UCLF (%)	0.0	0.0	0.0	0.0	29.0	25.4	0.0	0.0	0.0	0.0	0.0	31.1	7.2
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Aug 1976
Date of First Criticality: 28 Mar 1989
Date of Grid Connection: 10 Apr 1989
Date of Commercial Operation: 20 May 1989

Lifetime Generation: 148741.7 GW(e).h
Cumulative Energy Availability Factor: 90.1%
Cumulative Load Factor: 89.3%
Cumulative Unit Capability Factor: 90.2%
Cumulative Energy Unavailability Factor: 9.9%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1989	5547.2	1083.0	93.8	93.8	93.8	93.8	94.4	94.4	5104	94.1
1990	6868.0	1110.0	81.1	85.9	81.1	85.9	70.6	79.6	7125	81.3
1991	8897.4	1097.0	95.4	89.5	95.4	89.5	92.6	84.5	8375	95.6
1992	7779.6	1109.0	80.8	87.1	80.8	87.1	79.9	83.2	7175	81.7
1993	8680.9	1157.0	88.1	87.3	88.1	87.3	86.9	84.0	7737	88.3
1994	9331.6	1169.0	92.1	88.2	92.1	88.2	91.2	85.4	8062	92.0
1995	9165.6	1162.0	90.8	88.6	90.3	88.5	90.0	86.1	7908	90.3
1996	9037.6	1162.0	89.9	88.8	89.9	88.7	88.5	86.4	7899	89.9
1997	10310.8	1162.0	100.0	90.1	100.0	90.1	101.3	88.2	8760	100.0
1998	8388.6	1167.0	83.9	89.5	83.9	89.4	82.4	87.6	7347	83.9
1999	9022.6	1154.0	89.5	89.5	89.5	89.4	89.1	87.7	7833	89.4
2000	10337.8	1149.0	100.0	90.4	100.0	90.3	102.4	89.0	8784	100.0
2001	9456.7	1149.0	92.6	90.5	92.6	90.5	94.0	89.4	8112	92.6
2002	8418.9	1149.0	83.7	90.0	83.7	90.0	83.6	89.0	7328	83.7
2003	9736.6	1149.0	95.9	90.4	95.9	90.4	96.7	89.5	8401	95.9
2004	9168.7	1149.0	90.8	90.5	90.8	90.4	90.8	89.6	7970	90.7
2005	8592.9	1149.0	85.2	90.2	85.2	90.1	85.4	89.3	7464	85.2

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1989 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		631			61	
B. Refuelling without a maintenance					33	
C. Inspection, maintenance or repair combined with refuelling	656			567		
D. Inspection, maintenance or repair without refuelling				71		
E. Testing of plant systems or components	6			1		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					15	2
L. Human factor related					2	
Z. Others				4		
Subtotal	662	631	0	643	111	2
Total		1293			756	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1989 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
13. Reactor Auxiliary Systems		1
14. Safety Systems	231	17
15. Reactor Cooling Systems		6
16. Steam generation systems		1
31. Turbine and auxiliaries		1
32. Feedwater and Main Steam System	399	7
35. All other I&C Systems		9
41. Main Generator Systems		0
42. Electrical Power Supply Systems		4
Total	630	52

US-382 WATERFORD-3

Operator: ENTERGY (ENTERGY NUCLEAR)
Contractor: CE (COMBUSTION ENGINEERING CO.)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1089.0 MW(e)
Design Net Capacity: 1104.0 MW(e)
Design Discharge Burnup: 33450 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 7913.7 GW(e).h
Energy Availability Factor: 79.7%
Load Factor: 82.9%
Operating Factor: 79.6%
Energy Unavailability Factor: 20.3%
Total Off-line Time: 1786 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	823.9	738.7	819.6	424.4	0.0	496.6	865.7	764.7	471.8	873.1	760.4	874.6	7913.7
EAF (%)	100.0	100.0	100.0	53.3	0.0	64.3	100.0	87.1	60.1	100.0	91.3	100.0	79.7
UCF (%)	100.0	100.0	100.0	53.3	0.0	64.3	100.0	100.0	100.0	100.0	91.3	100.0	84.0
LF (%)	101.7	100.9	101.2	54.1	0.0	63.3	106.8	94.4	60.2	107.6	97.0	108.0	82.9
OF (%)	100.0	100.0	100.0	53.2	0.0	64.2	100.0	88.8	58.2	100.0	91.3	100.0	79.6
EUF (%)	0.0	0.0	0.0	46.7	100.0	35.7	0.0	12.9	39.9	0.0	8.7	0.0	20.3
PUF (%)	0.0	0.0	0.0	46.7	100.0	35.7	0.0	0.0	0.0	0.0	0.0	0.0	15.3
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.7
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	39.9	0.0	0.0	0.0	4.4

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Nov 1974
Date of First Criticality: 04 Mar 1985
Date of Grid Connection: 18 Mar 1985
Date of Commercial Operation: 24 Sep 1985

Lifetime Generation: 164654.5 GW(e).h
Cumulative Energy Availability Factor: 85.9%
Cumulative Load Factor: 85.5%
Cumulative Unit Capability Factor: 86.1%
Cumulative Energy Unavailability Factor: 14.1%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1985	1805.2	1104.0	76.1	76.1	76.1	76.1	68.8	68.8	1800	75.7
1986	7308.4	1075.0	79.5	78.7	79.5	78.7	76.1	74.5	6921	79.0
1987	7434.1	1075.0	80.9	79.7	80.9	79.7	78.9	76.4	7085	80.9
1988	6548.4	1075.0	73.7	77.9	73.7	77.9	69.3	74.3	6468	73.6
1989	7609.4	1075.0	81.5	78.7	81.5	78.7	80.8	75.8	7136	81.5
1990	8604.2	1075.0	92.2	81.3	92.2	81.3	91.4	78.7	8079	92.2
1991	7274.9	1075.0	78.9	80.9	78.5	80.8	77.3	78.5	6869	78.4
1992	7622.2	1075.0	82.1	81.1	82.1	81.0	80.7	78.8	7213	82.1
1993	9138.8	1075.0	99.2	83.3	99.2	83.2	97.0	81.0	8691	99.2
1994	7931.9	1075.0	86.3	83.6	86.3	83.5	84.2	81.3	7555	86.2
1995	7763.4	1075.0	82.7	83.5	82.7	83.4	82.4	81.5	7241	82.7
1996	8926.8	1075.0	93.8	84.4	93.8	84.4	94.5	82.6	8237	93.8
1997	6720.7	1075.0	70.4	83.3	70.4	83.2	71.4	81.7	6161	70.3
1998	8620.8	1075.0	91.0	83.8	91.0	83.8	91.5	82.4	7966	90.9
1999	7441.7	1075.0	78.9	83.5	78.9	83.5	79.0	82.2	6905	78.8
2000	8477.4	1075.0	88.2	83.8	88.2	83.8	89.8	82.7	7743	88.1
2001	9539.1	1075.0	99.5	84.8	99.5	84.7	101.3	83.8	8718	99.5
2002	8847.9	1075.0	92.8	85.2	92.8	85.2	94.0	84.4	8136	92.9
2003	8503.1	1075.0	89.7	85.5	89.7	85.4	90.3	84.7	7865	89.8
2004	9654.4	1075.0	99.9	86.2	99.9	86.2	102.2	85.7	8771	99.9
2005	7913.7	1089.0	84.0	86.1	79.7	85.9	82.9	85.5	6975	79.6

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1985 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		62			231	
B. Refuelling without a maintenance					15	
C. Inspection, maintenance or repair combined with refuelling	1337			745		
D. Inspection, maintenance or repair without refuelling				107		
E. Testing of plant systems or components				0		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					8	1
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)			383			
Subtotal	1337	62	383	852	254	1
Total		1782			1107	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1985 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		10
13. Reactor Auxiliary Systems		4
14. Safety Systems		2
15. Reactor Cooling Systems		103
17. Safety I&C Systems (excluding reactor I&C)		37
31. Turbine and auxiliaries		9
32. Feedwater and Main Steam System		27
33. Circulating Water System	62	
35. All other I&C Systems		22
41. Main Generator Systems		2
42. Electrical Power Supply Systems		3
Total	62	219

US-390 WATTS BAR-1

Operator: TVA (TENNESSEE VALLEY AUTHORITY)

Contractor: WH (WESTINGHOUSE ELECTRIC CORPORATION AND SIEMENS)

1. Station Details

Type: PWR
Net Reference Unit Power at the beginning of 2005: 1121.0 MW(e)
Design Net Capacity: 1218.0 MW(e)
Design Discharge Burnup: 36000 MW.d/t
Status at end of year: Operational

2. Production Summary 2005

Net Energy Production: 8816.4 GW(e).h
Energy Availability Factor: 89.5%
Load Factor: 89.8%
Operating Factor: 89.5%
Energy Unavailability Factor: 10.5%
Total Off-line Time: 920 hours

3. 2005 Monthly Performance Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
GW(e).h	856.9	574.6	0.0	788.0	850.0	806.1	827.5	823.0	760.2	845.2	827.1	857.9	8816.4
EAF (%)	100.0	75.0	0.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.5
UCF (%)	100.0	75.0	0.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.5
LF (%)	102.7	76.3	0.0	97.6	101.9	99.9	99.2	98.7	94.2	101.2	102.5	102.9	89.8
OF (%)	100.0	75.0	0.0	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.5
EUF (%)	0.0	25.0	100.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
PUF (%)	0.0	25.0	100.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
UCLF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XUF (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

UCLF replaces previously used UUF.

4. 2005 Summary of Operation

5. Historical Summary

Date of Construction Start: 01 Dec 1972
Date of First Criticality: 01 Jan 1996
Date of Grid Connection: 06 Feb 1996
Date of Commercial Operation: 05 May 1996

Lifetime Generation: 86098.0 GW(e).h
Cumulative Energy Availability Factor: 91.2%
Cumulative Load Factor: 91.0%
Cumulative Unit Capability Factor: 91.2%
Cumulative Energy Unavailability Factor: 8.8%

Year	Energy GW(e).h	Capacity MW(e)	Performance for Full Years of Commercial Operation							
			Unit Capability Factor (in %)		Energy Availability Factor (in %)		Load Factor (in %)		Annual Time Online	
			Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Hours	of (%)
1996	5141.4	1117.0	87.7	87.7	87.7	87.7	89.0	89.0	4803	91.4
1997	7600.1	1117.0	82.3	84.3	82.3	84.3	77.7	81.9	7269	83.0
1998	9681.0	1118.0	99.0	90.0	99.0	90.0	98.9	88.5	8672	99.0
1999	8267.4	1118.0	86.8	89.1	86.8	89.1	84.4	87.3	7606	86.8
2000	9076.4	1118.0	92.5	89.8	92.5	89.8	92.4	88.4	8124	92.5
2001	9626.6	1125.0	96.1	91.0	96.1	91.0	97.5	90.1	8419	96.1
2002	9079.4	1125.0	91.3	91.0	91.3	91.0	92.1	90.4	7998	91.3
2003	8549.6	1121.0	86.2	90.4	86.2	90.4	86.9	89.9	7551	86.2
2004	9856.9	1121.0	98.8	91.4	98.8	91.4	100.1	91.1	8680	98.8
2005	8816.4	1121.0	89.5	91.2	89.5	91.2	89.8	91.0	7841	89.5

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1996 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure					195	
B. Refuelling without a maintenance					10	
C. Inspection, maintenance or repair combined with refuelling	918			430		
E. Testing of plant systems or components				70	4	
H. Nuclear regulatory requirements				114		
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					20	
Subtotal	918	0	0	614	229	0
Total	918			843		

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1996 to 2005 Average Hours Lost Per Year
12. Reactor I&C Systems		6
14. Safety Systems		19
15. Reactor Cooling Systems		22
31. Turbine and auxiliaries		24
32. Feedwater and Main Steam System		72
33. Circulating Water System		26
35. All other I&C Systems		4
42. Electrical Power Supply Systems		21
Total	0	194

6. Full Outages, Analysis by Cause

Outage Cause	2005 Hours Lost			1986 to 2005 Average Hours Lost Per Year		
	Planned	Unplanned	External	Planned	Unplanned	External
A. Plant equipment failure		262			145	
B. Refuelling without a maintenance					137	
C. Inspection, maintenance or repair combined with refuelling	967			875		
D. Inspection, maintenance or repair without refuelling				11	16	
E. Testing of plant systems or components				0	1	
K. Load-following (frequency control, reserve shutdown due to reduced energy demand)					10	5
N. Environmental conditions (lack of cooling water due to dry weather, cooling water temperature limits, flood, storm, lightning, etc.)						1
Subtotal	967	262	0	886	309	6
Total		1229			1201	

7. Equipment Related Full Outages, Analysis by System

System	2005 Hours Lost	1986 to 2005 Average Hours Lost Per Year
11. Reactor and Accessories		31
12. Reactor I&C Systems		14
15. Reactor Cooling Systems		2
16. Steam generation systems		7
17. Safety I&C Systems (excluding reactor I&C)		2
31. Turbine and auxiliaries		6
32. Feedwater and Main Steam System		22
35. All other I&C Systems		6
41. Main Generator Systems	262	
42. Electrical Power Supply Systems		5
Total	262	95

6. NON-ELECTRICAL APPLICATION OF NUCLEAR ENERGY IN MEMBER STATES

Table 7.1: District heating and process heat in 2005

Country	Reactor	District heating [Gcal]	Process heat [Gcal]	Total heat [Gcal]
Czech Republic	Temelin-1	43951	N/A	43951
	Temelin-2	2919	N/A	2919
Hungary	PAKS-2	4171	N/A	4171
	PAKS-3	21084	N/A	21084
	PAKS-4	276642	N/A	276642
India	Rajasthan-1	N/A	0	0
	Rajasthan-2	N/A	336999	336999
Russia	Balakovo-1	52497	0	52497
	Balakovo-2	0	0	0
	Balakovo-3	0	0	0
	Balakovo-4	2782	0	2782
	Beloyarsky-3	295800	0	295800
	Bilibino-1	54143	N/A	54143
	Bilibino-2	65613	N/A	65613
	Bilibino-3	42554	N/A	42554
	Bilibino-4	33021	N/A	33021
	Kalinin-1	308917	7851	316768
	Kalinin-2	230647	6483	237130
	Kola-1	3599	946	4545
	Kola-2	7609	1054	8663
	Kola-3	12690	1071	13761
	Kola-4	7852	807	8659
	Kursk-1	56031	62334	118365
	Kursk-2	104006	116942	220948
	Kursk-3	92848	81824	174672
	Kursk-4	246476	254517	500993
	Leningrad-1	208638	0	208638
	Leningrad-2	123367	0	123367
	Leningrad-3	156893	0	156893
	Leningrad-4	233155	0	233155
	Novovoronezh-3	120442	1225	121668
	Novovoronezh-4	128971	419	129390
	Novovoronezh-5	0	0	0
	Smolensk-1	100848	5771	106619
	Smolensk-2	47119	1941	49060
	Smolensk-3	135293	6720	142013
Slovakia	Bohunice-3	217822	0	217822
	Bohunice-4	184087	0	184087
Switzerland	Beznau-1	136	N/A	136
	Beznau-2	5	N/A	5
	Goesgen	N/A	46329	46329
Ukraine	Khemlnitski-1	193332	N/A	193332
	Rovno-1	70929	N/A	70929
	Rovno-2	110586	N/A	110586
	Rovno-3	174549	N/A	174549
	South Ukraine-1	79796	N/A	79796
	South Ukraine-2	101589	N/A	101589
	South Ukraine-3	164723	N/A	164723
	Zaporozhe-1	74592	N/A	74592
	Zaporozhe-2	79773	N/A	79773
	Zaporozhe-3	82068	N/A	82068
	Zaporozhe-4	59766	N/A	59766
	Zaporozhe-5	255044	N/A	255044
	Zaporozhe-6	92901	N/A	92901

Table 7.2: Water desalination in 2005

Country	Reactor	Thermal energy [Gcal]	Electrical energy for reverse osmosis [MWh]	Water produced [m3]
India	Madras-1 Madras-2			
Japan	Genkai-3	34574		503734
	Genkai-4			
	Ikata-1	27360		315968
	Ikata-2			
	Ikata-3	N/A	3889	884170
	Ohi-1			948413
	Ohi-2			
	Takahama-3			821264
	Takahama-4			