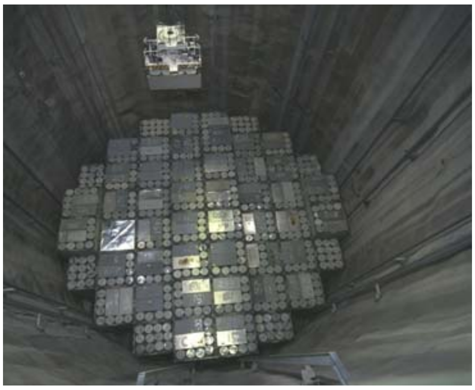
Radioactive Waste Management Profiles

a Compilation of Data from the Net Enabled Waste Management Database (NEWMDB)

No. 9

This Profiles report is based on data collected using the NEWMDB from May to December 2007. The report was first published on line within the NEWMDB March 2008. Please refer to the Profiles bookmark; the page that is accessed via this bookmark lists revisions to individual Profiles (if there are any).



May 2008

IAEA
International Atomic Energy Agency

EDITORIAL NOTE

Staff of the IAEA prepared this report based on data submitted by IAEA Member States to the Agency's Net Enabled Waste Management Database. The accuracy and completeness of the information in this report is directly related to the quality of the information provided by authorized representatives from Member States.

Throughout the text, names of Member States are retained as they were when the text was compiled.

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RADIOACTIVE WASTE MANAGEMENT PROFILES – NUMBER 9
A COMPILATION OF DATA FROM THE NET ENABLED WASTE MANAGEMENT DATABASE
IAEA, VIENNA, 2008
IAEA/WMDB/9

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May 2008

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http://www-newmdb.iaea.org (Homepage)

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NEWMDB@iaea.org (NEWMDB Programme Officer)

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FOREWORD

The IAEA's Net Enabled Waste Management Database (NEWMDB) is an Internet-based [1] application to collect information about radioactive waste management activities and waste inventories in IAEA Member States. The NEWMDB's On-Line Help [2] provides extensive detail about the purpose, scope and limitations, and use of the NEWMDB.

Objectives

The principal objectives for the NEWMDB are to:

- support the routine reporting of status and trends in radioactive waste management based, to the greatest extent practicable, on quantitative data rather than anecdotal information,
- compile data on the world-wide inventory of radioactive waste in Agency Member States on an annual basis,
- provide a means to research and assess the development and implementation of national systems for radioactive waste management in Agency Member States, and
- provide a voluntary tool to Member States that supports the reporting requirements of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention).

There have been a total of 6 data collection cycles using the new system. The first data collection cycle using the NEWMDB was held from July 2001 to March 2002. Subsequent data collections have been conducted for 2002, 2003, 2004, 2005, and 2006.

Process

The IAEA invites Member States to appoint a single point-of-contact, known as a Country Coordinator (CC), to interact with the NEWMDB Programme Officer. CCs are responsible for all information submitted to the IAEA via the NEWMDB.

CCs can designate and register other users, such as Report Coordinators (RCs) and Waste Experts (WEs), to assist with NEWMDB submissions. CCs, RCs and WEs are known as Authorized Users.

The NEWMDB was implemented as a series of components that requires Authorized Users to input and approve information in a step-wise process as follows (see Figure 1):

Step 1: CCs use the waste class matrix tool to identify all waste classification schemes used in their country and to compare these schemes with the IAEA's proposed common waste classification scheme. The matrix tool provides support for the Joint Convention requirement that "*For each Contracting Party the report shall also address its... ...criteria used to define and categorize radioactive waste*".

Step 1: includes the "General Information" part where CCs identify who regulates radioactive waste, the laws and regulations that are relevant to radioactive waste management, significant milestones in radioactive waste management in their countries, and radioactive waste management policies. CCs answer about 80 policy related questions. Figure 2 illustrates some policy questions.

[1] http://www-newmdb.iaea.org/start.asp (NEWMDB's Home Page)
[2] http://www-newmdb.iaea.org/help.asp (NEWMDB's On Line Help - top page)

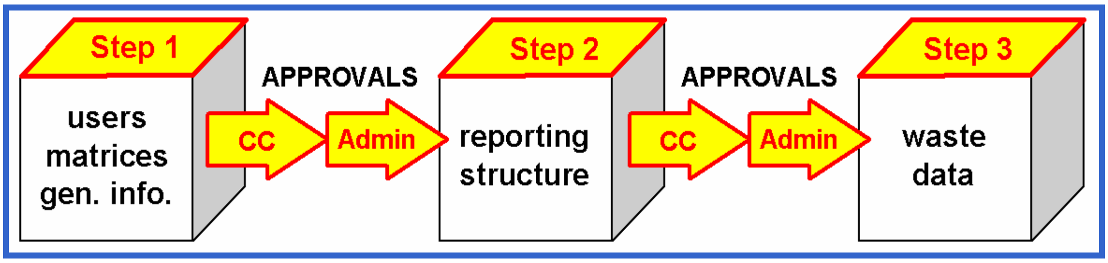

Figure 1: Steps in the NEWMDB Data Input Process

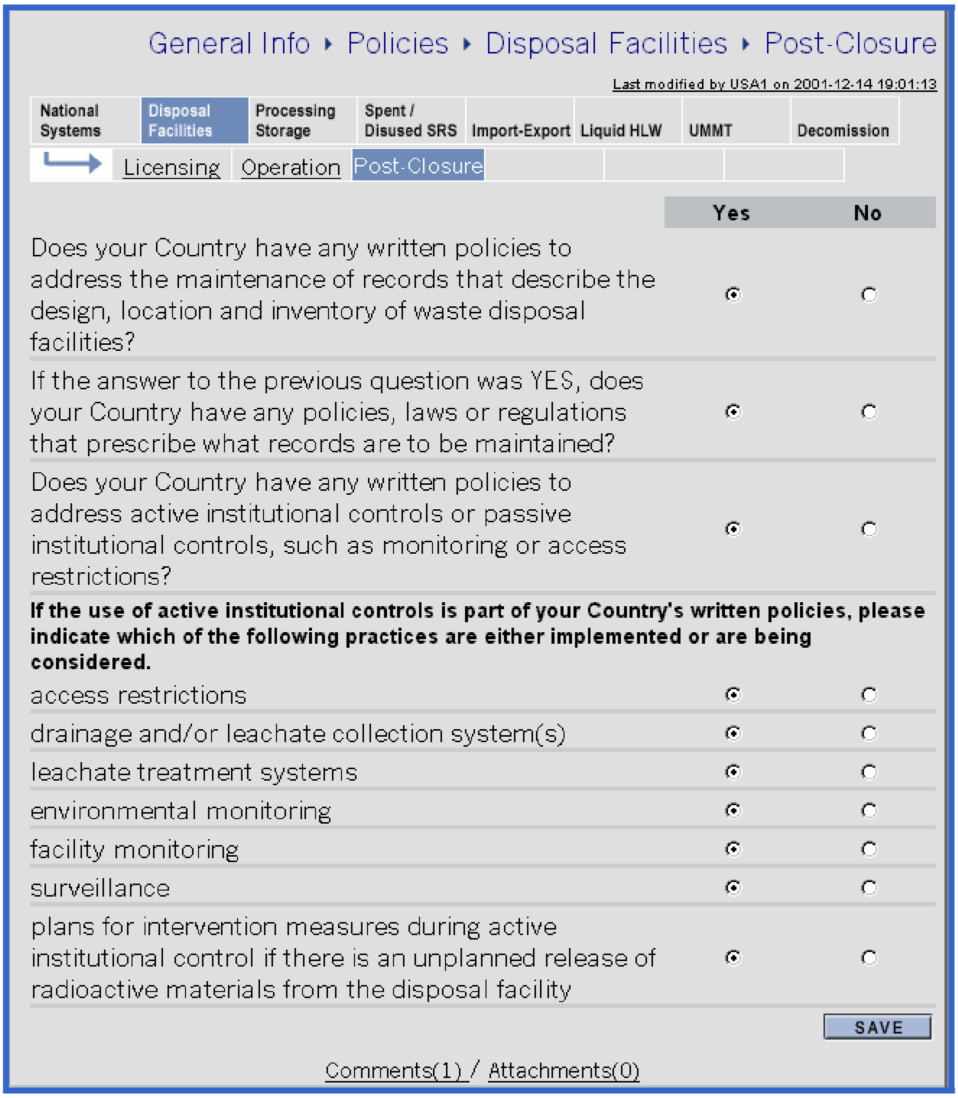

Figure 2: Example NEWMDB Policy Questions

Step 2: CCs define how the waste inventories in their respective countries will be reported to the NEWMDB in the “Framework Component”. This feature accommodates the wide range of radioactive waste management infrastructures in Member States. CCs define the number of Reporting Groups and within each Reporting Group they identify the waste management Sites and Facilities. For facilities, CCs indicate attributes such as type (i.e., processing, storage, and/or disposal), design and existing capacity, license holder, etc.

Step 3: The “Waste Data” component of the NEWMDB is used to identify waste treatment and conditioning methods for processing facilities, to specify the inventory of radioactive waste for each waste class at each waste management site, and to input lists of spent/disused SRS at waste management sites.

Data Uses

The data and other information collected by NEWMDB can and are used for a variety of purposes, including:

- the compilation of a comprehensive, international radioactive waste inventory based on a unified waste classification scheme,
  (see *Overview Reports: Consolidated Radioactive Waste Inventory*)
- reporting requirements for the Joint Convention,
  (see *Overview Reports: The Joint Convention and the NEWMDB*)

Overview Reports

Readers may notice some repetition of text in the various Overview Reports. This repetition is intentional – it allows the reports to be self-standing.

The information submitted by Member States to the NEWMDB is contained in individual "Country Waste Profiles" (CWP). See *Guide to Reading Profile Reports* for guidance on reading CWP reports.

Publication of this NEWMDB Profiles Report is made possible by the participation of Member States. The efforts of the Resident Missions to the Agency in Vienna and other governmental organizations in Member States who coordinated the submission of the data are greatly appreciated.

This report was compiled by:

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Department of Nuclear Energy
Waste Technology Section

INTRODUCTION

The IAEA's Net Enabled Waste Management Database (NEWMDB) contains information on national radioactive waste management programmes, plans and activities, relevant laws and regulations, policies and radioactive waste inventories. The NEWMDB is an Internet based application that can be accessed via the following Internet address:

http://www-newmdb.iaea.org

NEWMDB necessarily has separate Public and Member Areas for the database. The "Member Area" is where IAEA Member State representatives submit information to the database and is used purely for administration purposes.

After a submission is approved by a Member State representative, known as a Country Co-ordinator (CC), and by the NEWMDB Programme Officer, the information is published and can be accessed via the Public Area. Registration using an e-mail address is required to access the Public Area - see Figure 1 to learn how to register as an NEWMDB Public User. Registration is used for tracking usage statistics only.

Figure 2 illustrates how to access publicly available reports in the waste management database series.

Basic Features

Country Waste Profiles

The Country Waste Profiles reports (i.e., this document) are available on-line and in this Adobe Acrobat™ format for download. They provide a concise summary of the information entered into the NEWMDB system by each participating Member State. The information submitted by Member States to the NEWMDB is contained in individual "Country Waste Profiles" (CWP). See the "*Guide to Reading Profile Reports*" for guidance on reading CWP reports. The Guide can be accessed via the following Internet address:

http://www-newmdb.iaea.org/help/profiles9/guide.pdf

Reading Rooms

The Reading Room feature was added to the NEWMDB to serve as a "portal" to overview information about radioactive waste management in Member States. Each Member State that participates in the NEWMDB can have its own Reading Room. Additionally, the IAEA has a Reading Room. The information that is posted in a Member State's Reading Room is controlled by the CC for the Member State. This lends credibility to the information that is posted since only CCs control whether or not information is posted in Reading Rooms for public viewing. Likewise, information posted in the IAEA's Reading Room is controlled by the NEWMDB Programme Officer. The information posted in the IAEA's Reading Room provides a portal to IAEA activities in the field of radioactive waste management. While the information posted is accessible via other IAEA resources, such as the On Line Publications Database, the IAEA's Reading Room pulls this information together to facilitate access.

Query Tools

Query tools allow Public Users to extract data from Member State submissions to the NEWMDB to better assess the information provided to the database. See Figure 3 for an example query report.

Information about the features described above can be accessed at the following Internet addresses:

http://www-newmdb.iaea.org/showhelp.asp?Topic=19-1-1
http://www-newmdb.iaea.org/showhelp.asp?Topic=21-1-1

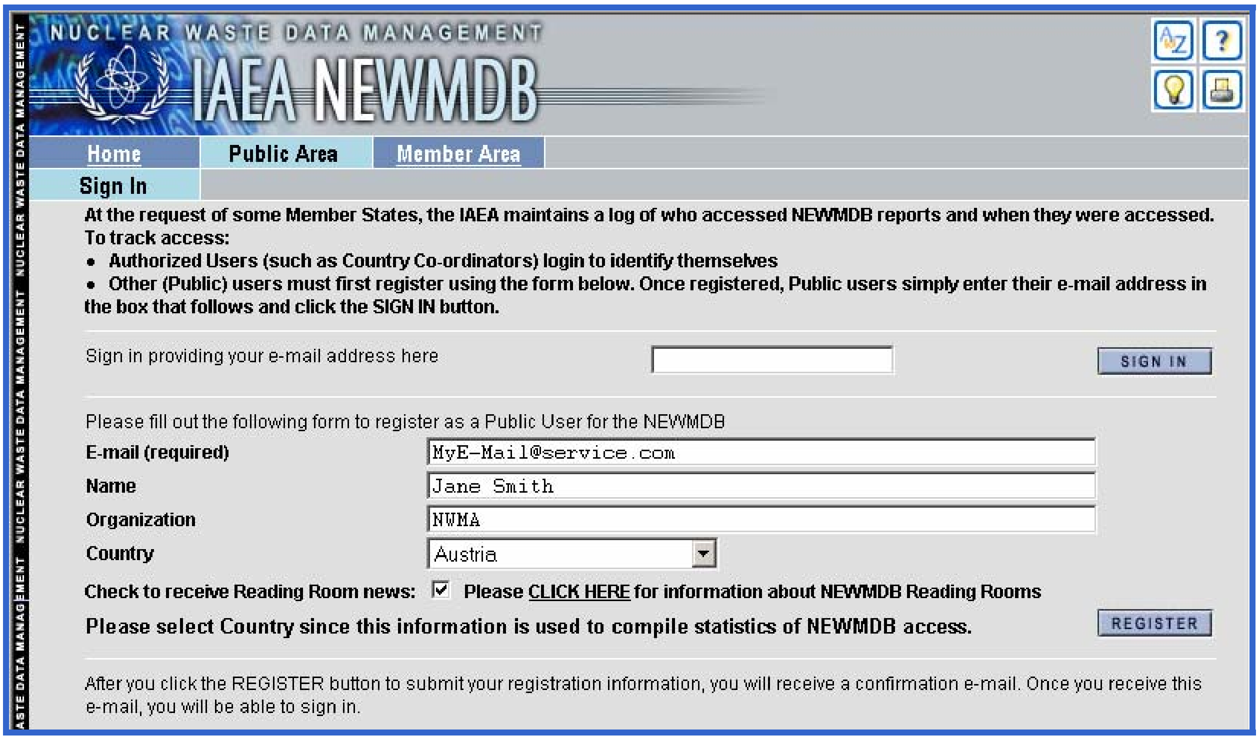


Figure 1: Public User Registration Screen

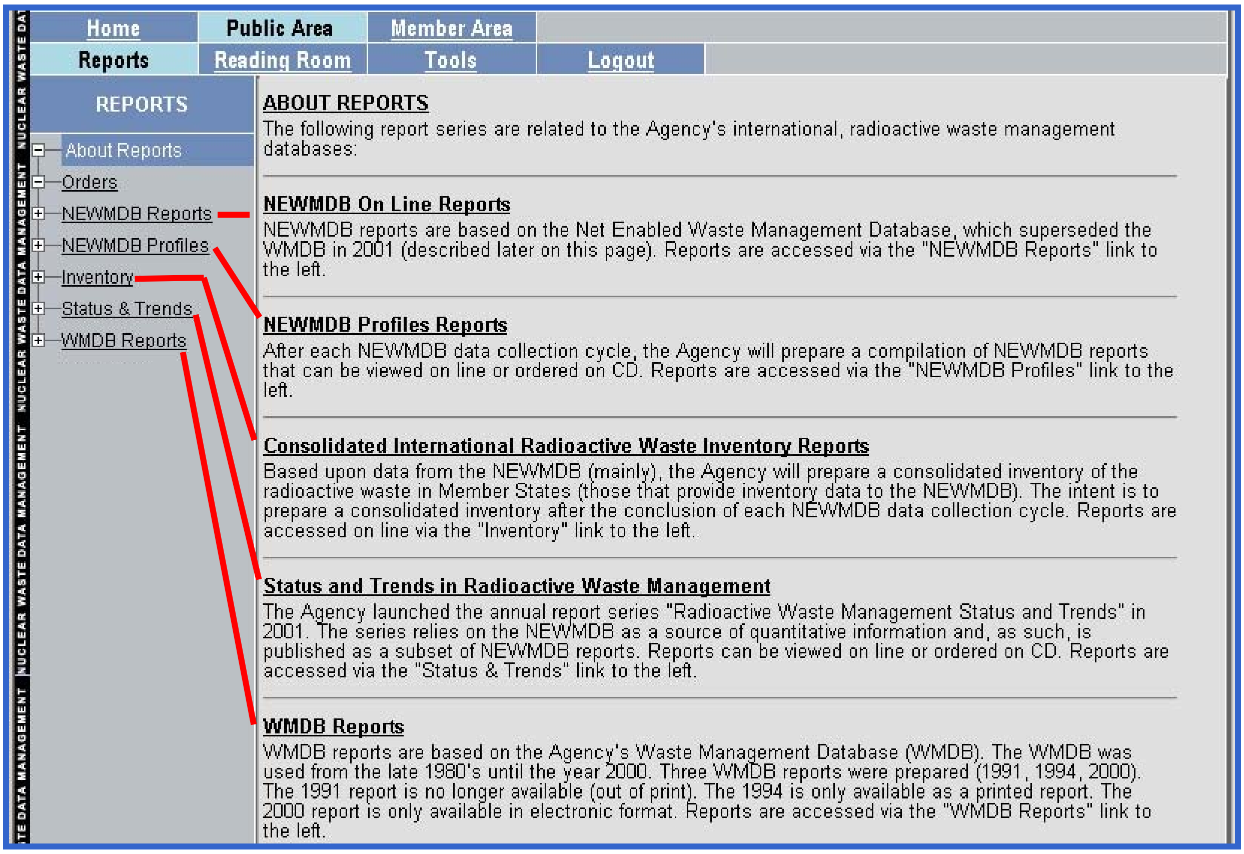


Figure 2: Access to Publicly Available Waste Management Database Series Reports

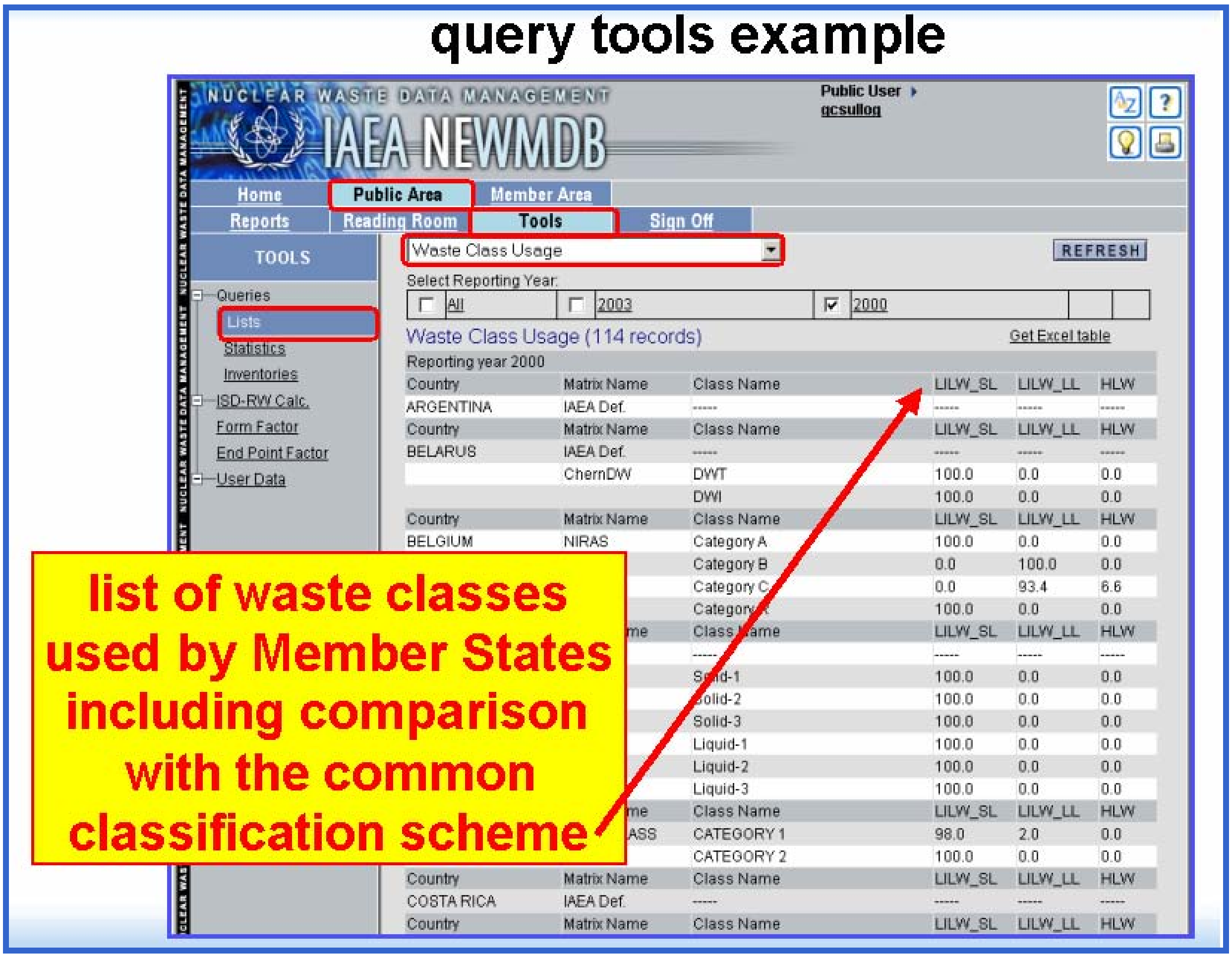


Figure 3: Query Tools Example (Radioactive Waste Classification Schemes in IAEA Member States)

OVERVIEW REPORT: Consolidated Radioactive Waste Inventory Report

One of the fundamental features of the NEWMDB is that it allows Member States to report their waste inventories according to the radioactive waste classification scheme(s) used in their own countries. However, the NEWMDB requires Member States to describe how their radioactive waste classification scheme(s) compare with the common radioactive classification scheme proposed by the IAEA [1]. Member States use the NEWMDB's waste class matrix tool to make this comparison.

An overview of the waste class matrix is provided in a brief slide show that can be accessed via the following Internet address (requires Internet Explorer 4.0 or higher):

http://www-newmdb.iaea.org/help/GC2004/wmdb-doc-series2_files/frame.htm

Member States participating in submitting information to the NEWMDB were asked to appoint a single point-of-contact, called a Country Coordinator, to interact directly with the NEWMDB's Programme Officer. Country Coordinators are responsible for completing the waste class matrix on behalf of their country.

The waste class matrices completed by Country Coordinators allow the IAEA to convert Member States' waste inventories into the IAEA proposed waste classes in order to compile a radioactive waste inventory using a single waste classification scheme, thus allowing for "apples-to-apples" comparison between Member States and regions.

With the implementation of query tools in NEWMDB, there is no longer a need to publish a consolidated inventory report within the "Radioactive Waste Management Profiles" report series. Any Public User can access the NEWMDB via the Internet and query the database to get the latest consolidated radioactive waste inventory report, as described next:

- Register as an NEWMDB Public User (if not already done) - Note: Instructions for accessing the Public Area are provided in the "*Guide to Reading Member State 'Country Waste Profile' Reports*", which is part of the 8th "*Radioactive Waste Management Profiles*" report.
- Access the NEWMDB Home Page (http://www-newmdb.iaea.org).
- Click on the Public Area tab, sign in if not already signed in, and then click on the Tools tab.
- As illustrated in Figure 2, select the Inventories query, see **(A)** [the web page will update when the link is clicked], select the consolidated inventory query from the pick list, see **(B)**, check the desired NEWMDB Reporting Year(s), see **(C)**, and click the Refresh button, see **(D)**.

The last actions above will, by default, display the total inventory of radioactive waste reported by all the listed Member States for the selected NEWMDB Reporting Year(s) reported according to the IAEA's proposed common waste classification scheme. Users can select a single country or groups of countries to see the inventory in the selected country/countries reported according to the common scheme.

As noted in Figure 1, the 2nd consolidated waste inventory report was based on all waste inventory data entered by Member States in the 2nd NEWMDB data collection cycle, regardless of whether some inventory data were not made publicly available (see next paragraph). For the on-line inventory reports, the consolidated inventory is compiled only from data that are part of NEWMDB published submissions.

In some cases, not all parts of a Member State's submission to the NEWMDB are made publicly available. For example, "draft" data may be entered while validation is pending. The Member State may choose to make the information publicly accessible and provide a comment that the data are under review or it may choose to keep this information "private" (not part of the published report).

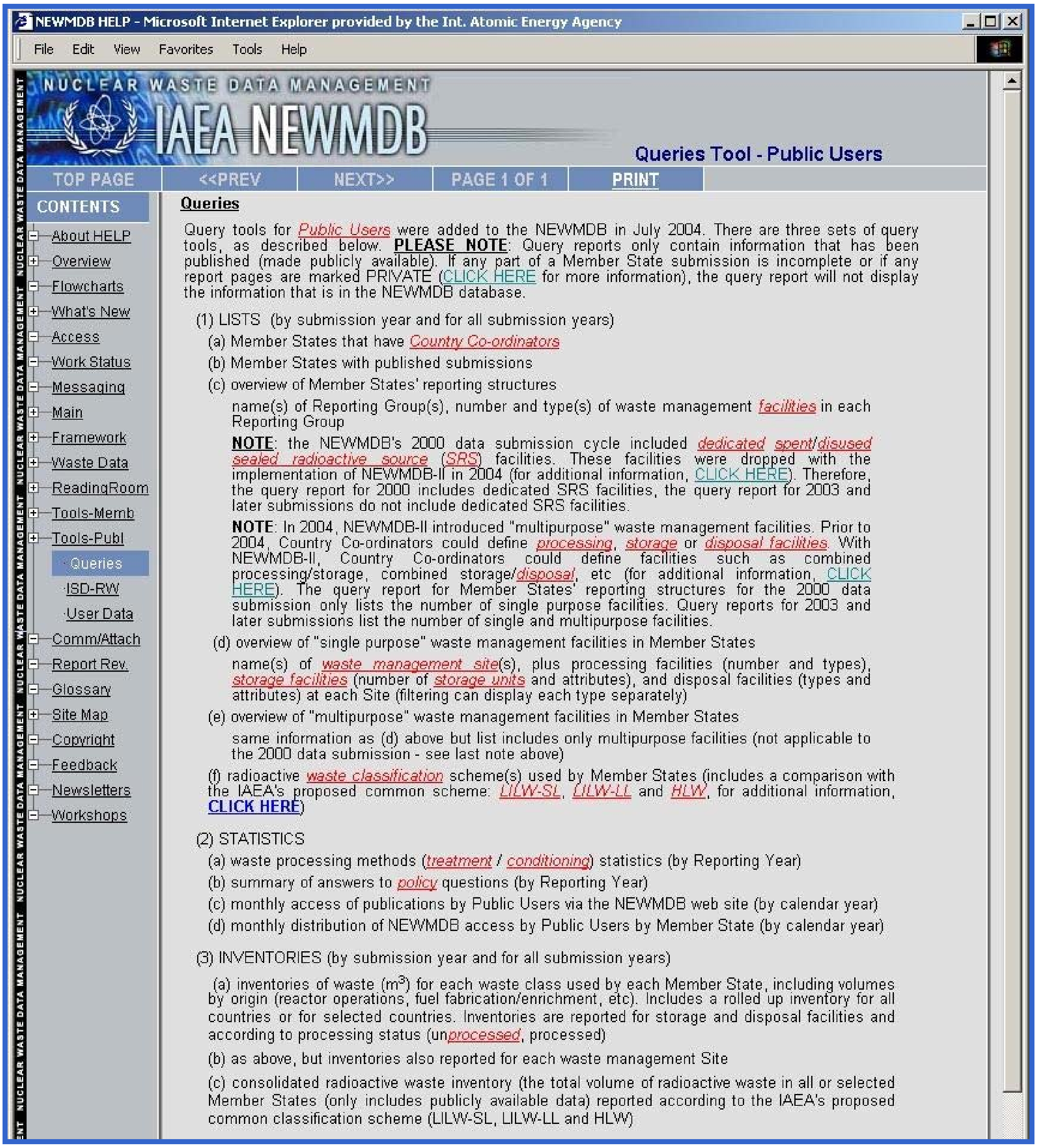


Figure 1: On-Line Help for Query Tools in the Public Area

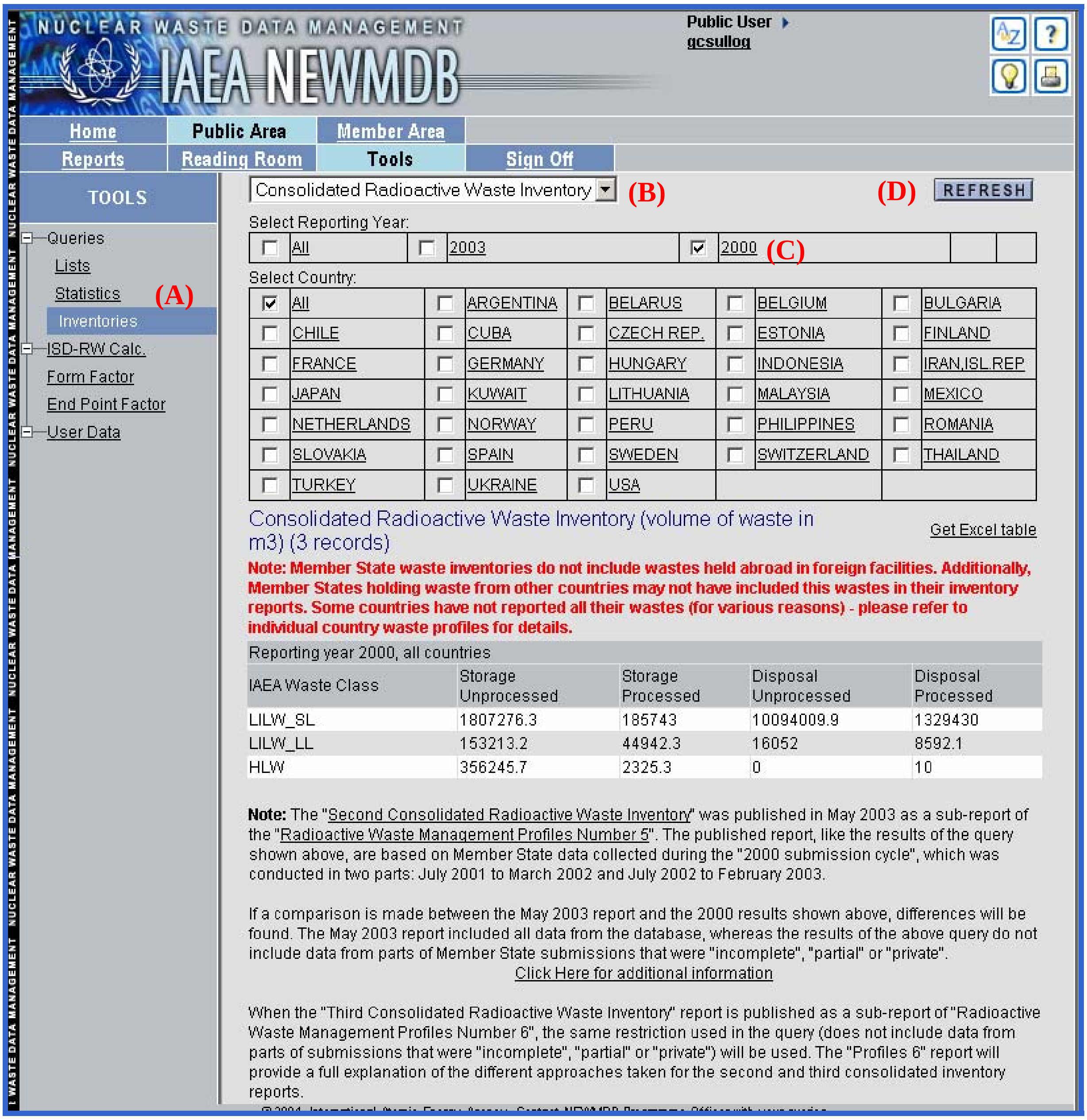


Figure 2: Consolidated Radioactive Waste Inventory Query

REFERENCES

[1] International Atomic Energy Agency, "Classification of Radioactive Wastes", Safety Guide, Safety Series 111-G-1.1, IAEA, Vienna, 1994.

[2] Csullog, G.W., Pozdniakov, I., "The IAEA's net enabled waste management database - Development and implementation of version II", Proceedings of Disposal Technologies and Concepts 2004 (DISTEC 2004), International Conference on Waste Disposal, 26-28 April, 2004

The Joint Convention and the NEWMDB

One of the IAEA's objectives for developing the Net-Enabled Waste Management Database (NEWMDB) was to conform, to the greatest extent practicable, with the reporting requirements of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (the Joint Convention) [1]. The use of an international database, like the NEWMDB, to collect the full scope of information required under Joint Convention reporting requirements is currently not feasible. However, the data portion of the National Report (excluding spent fuel) is covered 100% by the content of the NEWMDB data submissions. Therefore, the NEWMDB can serve as a platform for the production of National Reports and can help to provide data of a consistent content and quality for all Member States that choose to use it in this way.

Advantages of the NEWMDB

Several international organizations such as the IAEA, OECD-NEA, EC, just to mention a few, express a regular interest in national radioactive waste policies, infrastructure and inventories. Additionally, in many countries, regular reports on this topic are requested by various local bodies such as the governmental regulatory authorities, the parliament, etc. Although the basic information requested by these organizations is often the same, there are typically differences in the focus and also in the requested format. Sometimes only existing infrastructure and inventory numbers are needed, sometimes analysis of trends and predictions for the future must be provided.

As a result, national organizations responsible for reporting on radioactive waste are sometimes overwhelmed and frustrated at having to repeat the same job time and again, trying to reshape the same basic information into different and usually incompatible formats. An even worse situation can occur if the international organisations reach different local contacts and information sources. In such cases an incoherent, contradictory picture of the country's radioactive waste situation may arise due to a lack of consistency.

The IAEA's NEWMDB provides the flexibility to accommodate multiple radioactive waste reporting systems and also meets the Joint Convention reporting requirements for radioactive waste. Therefore, NEWMDB could serve as a basis for most international reporting requests, thus reducing unnecessary duplication of efforts, while at the same time founding the basis for consistency and coherence amongst all of the contributing Member States.

NEWMDB Reporting and the Joint Convention

Since the basis of Joint Convention reporting is a legally binding international agreement, the reporting itself must fulfil certain legal requirements. Although the technical details may be different from one country to another, the basic information requirements are the same. Since NEWMDB was originally designed to conform to the requirements of the Joint Convention, supplying data to it virtually ensures that a Member State has compiled and reported all of the necessary information and can use the reporting capabilities of the system to satisfy their obligations.

Therefore, the NEWMDB can provide a consistent basis for the development of these reports, and hardcopy outputs of the NEWMDB (as appendices to the reports) can provide the necessary detailed technical data to support the official statement. Also, one cannot underestimate the tremendous help the NEWMDB can provide to facilitate Joint Convention and other international reporting schemes. Using the NEWMDB in this way and will help to harmonize both the level of detail and the comparability of the data provided in National Reports.

Comparison of Data and Forecasting

Because of the comprehensive and global nature of the data collected by NEWMDB, it provides an ideal tool for national and international forecasting and benchmarking of radioactive waste management programmes. IAEA is constantly developing new tools within the system for data analysis and comparison amongst contributing Member States. Good data analysis can facilitate increases in efficiency, prediction of future resource needs, and even assist newly developing programmes to find the most cost-effective management strategies based on a review of existing programmes.

With the next version of NEWMDB, a specific feature will be added to produce tables of waste management data that directly comply with the format suggestions and content requirements of the Joint Convention.

Practical Considerations

Because the NEWMDB contains much of the data necessary for most Member States to prepare the waste management portions of a National Report, it could potentially reduce the work load of those responsible within each Member State for National Report preparation. It could also offer many other advantages, including:

1. Basic information describing facilities and programs is entered only one time and can be re-used as long as it is valid
2. By entering data into NEWMDB for tracking, data becomes immediately available for purposes of the Joint Convention, so there is only one "step" of data collection and entry
3. A template for the waste management portions of the National Report can be constructed one time and then simply updated using NEWMDB data
4. Waste management portions of the National Reports and data presented could become more consistent across most Member States
5. Similar information would become more accessible and comparable
6. Using the tool would partially fulfil the Joint Convention obligation to assist in the dissemination of information on radioactive waste management
7. Provides the additional possibility of generating reports to satisfy the requirements for other organizations (i.e., OECD-NEA, EC, internal reporting, etc.)

REFERENCES

[1] International Atomic Energy IAEA, "Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management", Information Circular INFCIRC/456, 24 December 1997.

Guide to Reading Member State "Country Waste Profile" Reports

(from the IAEA's Net-Enabled Waste Management Database)

for further information, please contact the Responsible Officer
via e-mail: NEWMDB@IAEA.org

This document was prepared as a sub-document for the report "Radioactive Waste Management Profiles No 9 – a compilation of data from the Net-Enabled Waste Management Database", International Atomic Energy Agency report IAEA/WMDB/9 (2008)

Guide to Reading Member State "Country Waste Profile" Reports

The Net-Enabled Waste Management Database (NEWMDB) is the International Atomic Energy Agency's main tool for collecting and disseminating information about radioactive waste management activities and waste inventories in IAEA States. This guide explains (1) how data are collected with the NEWMDB, (2) how to access publicly available reports and (3) the format of reports.

Data Collection

The NEWMDB is an on-line database [1]. Only officially recognized Member State representatives are permitted to enter and modify data in the database. The IAEA has issued Notes Verbale asking its Member States to appoint a single point-of-contact, known as a Country Coordinator (CC), to interact with the NEWMDB's Programme Officer. The Programme Officer establishes user accounts for CCs, who can, in turn, designate and register other users, Report Coordinators (RCs) and Waste Experts (WEs), to assist them with their NEWMDB submissions. Country Coordinators are responsible for the quality of data and completeness of information provided in NEWMDB data submissions.

The NEWMDB's On-Line Help provides extensive detail about the purpose, scope, limitations, and use of the NEWMDB [2]. Additional details of the current scope and limitations of the NEWMDB are described in Reference [3].

A data submission, full or partial, is known as a Country Waste Profile (CWP). A submission is completed when it is first "Approved by CC" and then "Approved by Admin", where "Admin" is the NEWMDB Administrator (currently, this is the NEWMDB Programme Officer).

After completing a submission to the NEWMDB, CCs indicate which report pages are to be made publicly accessible. All information either displayed or maintained as private is under the control of the CC. Once a CC has finished, the Administrator sets the submission status to Published, which allows public pages to be viewed by everyone. The report review, approval and publication process is described on the Internet at:

http://www-newmdb.iaea.org/showhelp.asp?Topic=14-1-1

Access to Publicly Available Reports

To access publicly available reports, one must register as a Public User, as illustrated in Figure 1. To display the registration screen, please access the NEWMDB's home page:

http://www-newmdb.iaea.org

At the home page, click on the Public Area tab (see Figure 1). Next, follow the instructions for registering as a Public User. After registration, you will receive an e-mail requesting that you use the link provided in the e-mail to activate your Public User account.

Activation will place a "cookie" (i.e., a small file containing registration information) on your computer. The cookie will allow you to access publicly available reports without having to sign in again. However, if you delete the cookie or if you use another computer, you will have to sign in again to access the system.

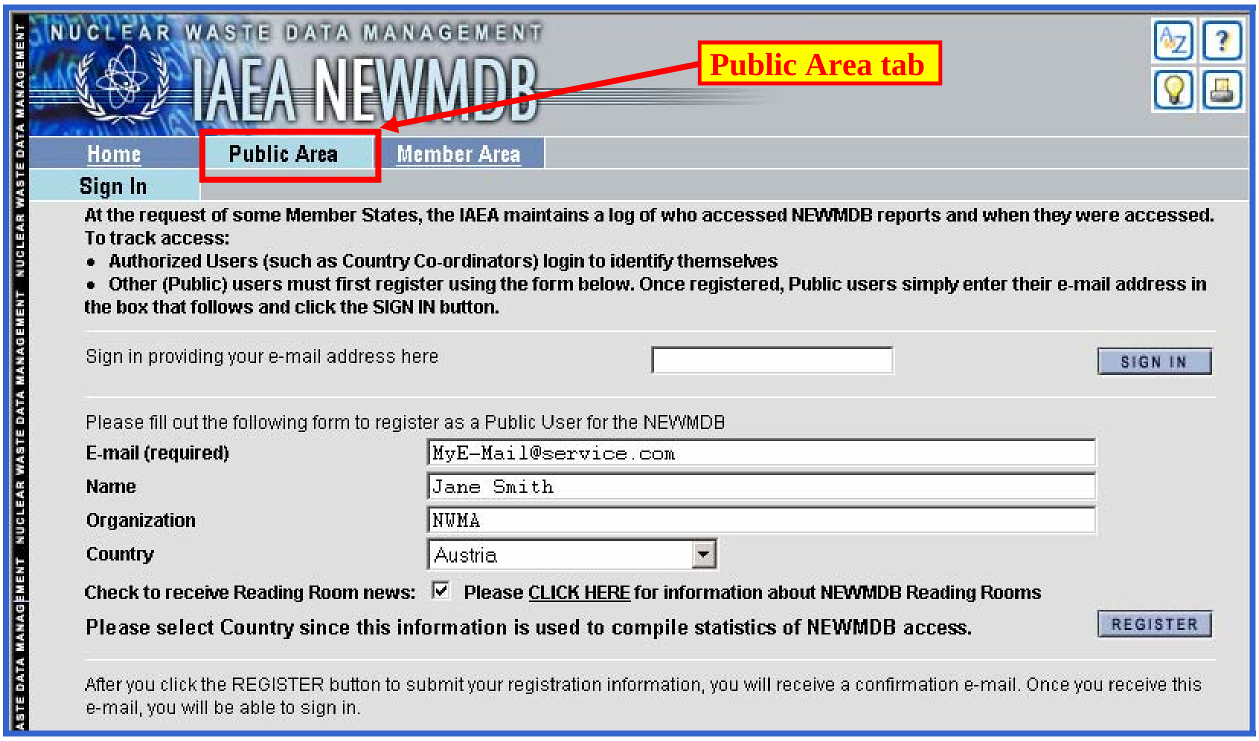


Figure 1: Public User Registration Screen

Once signed in, Public Users can access reports via the list on the left hand side of the Internet page, as shown in Figure 2. A description of the various reports is accessible via the "About Reports" link in the list. The "NEWMDB Reports" link provides access to either web-based or Adobe Acrobat PDF versions of reports.

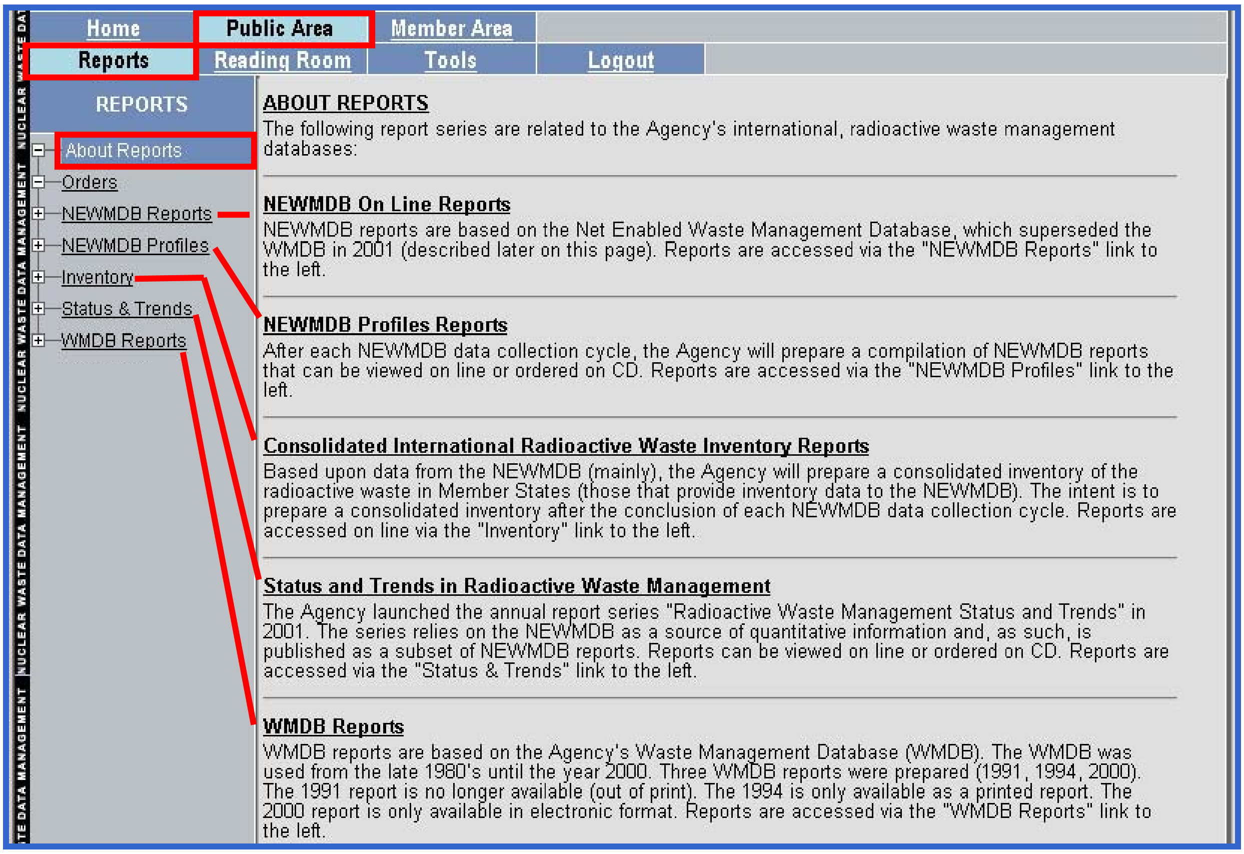


Figure 2: Access to Publicly Available Waste Management Database Series Reports
[http://www-newmdb.iaea.org/start.asp?NEWMDBSubStage=reports]

Access to on-line reports is on a country-by-country basis as well as a reporting period basis, as indicated in Figure 3. Please take note of the discussion of customization of NEWMDB submissions by Member States, which indicates that individual reports have varied structures.

On line access is useful if a Public User wants to view information about a specific country for a specific reporting period. However, if the User wants to have a complete set of NEWMDB reports for a reporting period, the preferred approach is to obtain copies of the report "*Radioactive Waste Management Profiles*", which are accessed via the "NEWMDB Profiles" link indicated in Figure 3.

The 9th "*Radioactive Waste Management Profiles*" report contains a compilation of publicly available reports that are based upon submissions to the NEWMDB during the 6th data collection cycle that was held May to December 2007. The Reporting Year was 2006 and the default Inventory Reporting Date was December 31, 2006. See Figure 4 for details about these two dates.

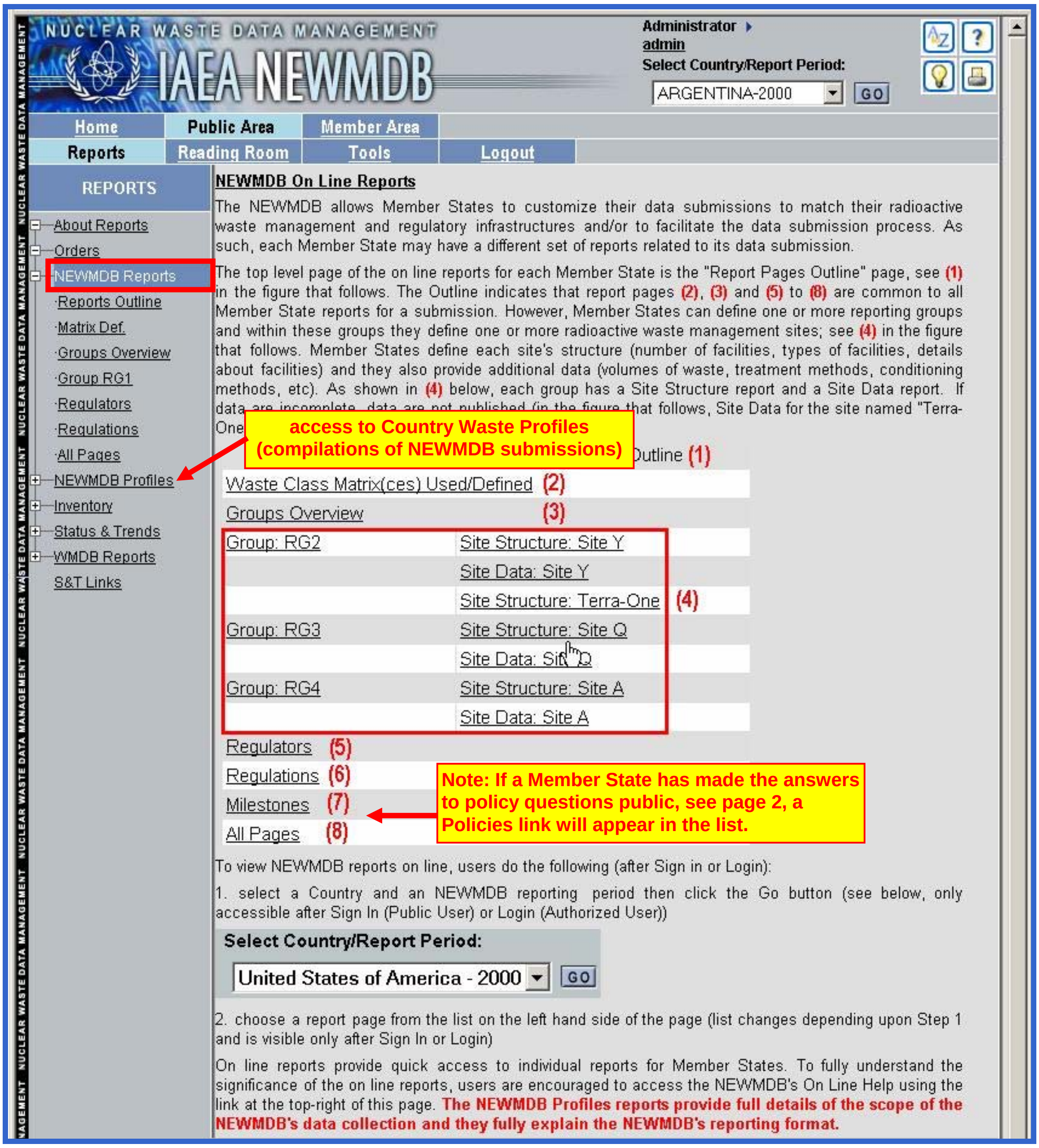


Figure 3: Access to On Line Reports

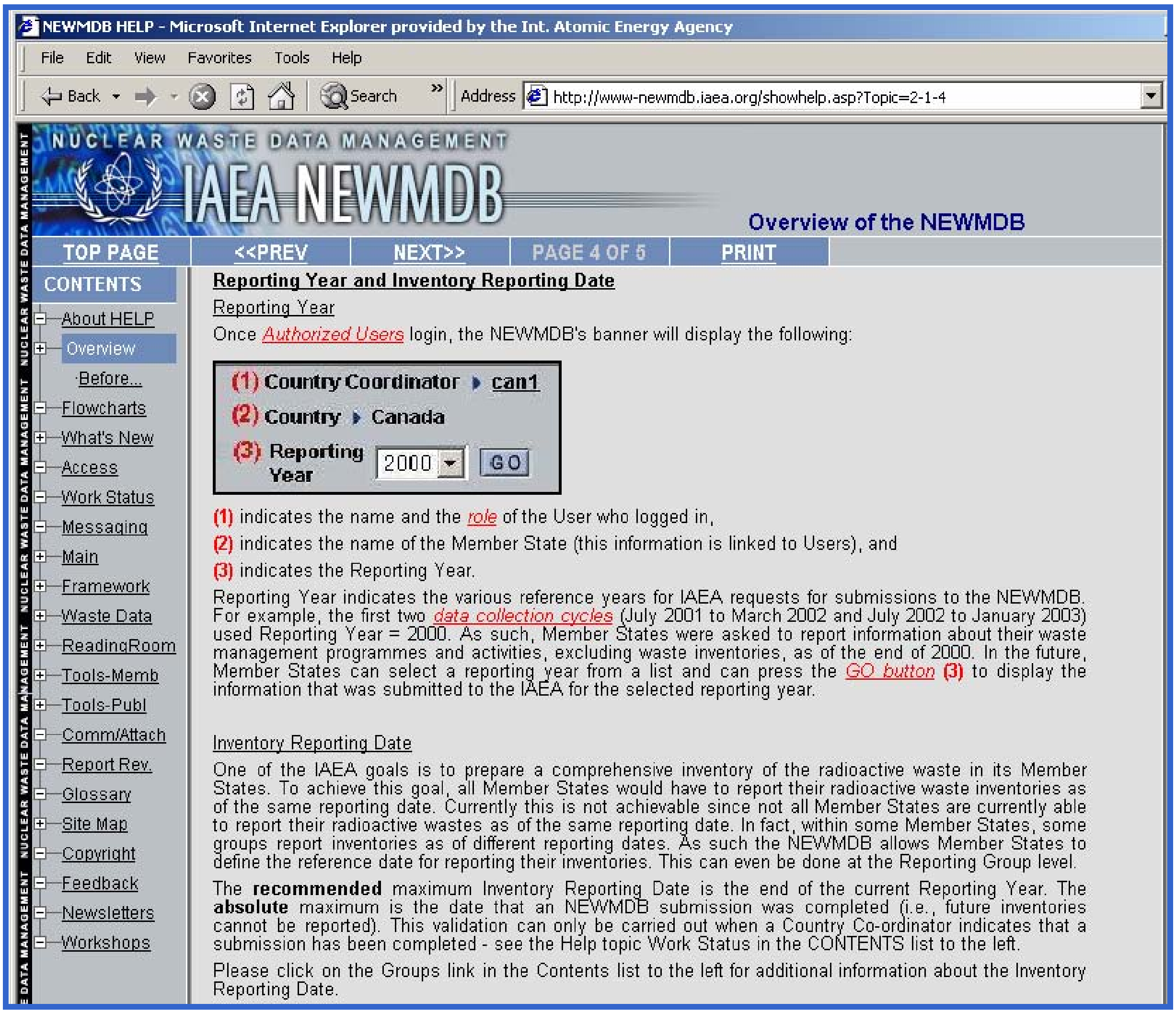


Figure 4: Reporting Year and Inventory Reporting Date

Format of Reports

The "Waste Class Matrix Used/Defined" Report

To make a submission to the NEWMDB, CCs are required to identify the waste classification schemes used in their country. Some countries use the IAEA classification scheme [4]. Many others have their own waste class definitions.

With the latter is the case, CCs must use the NEWMDB's waste class matrix tool to identify their waste classes and compare these classes to the waste classes in the IAEA proposed common classification scheme - see Figure 5. Table 1 and Figure 6 describe the publicly available report that is created based on the information entered into a waste matrix in the NEWMDB.

The matrix tool provides support for the Joint Convention [5] requirement that "*For each Contracting Party the report shall also address its criteria used to define and categorize radioactive waste*".

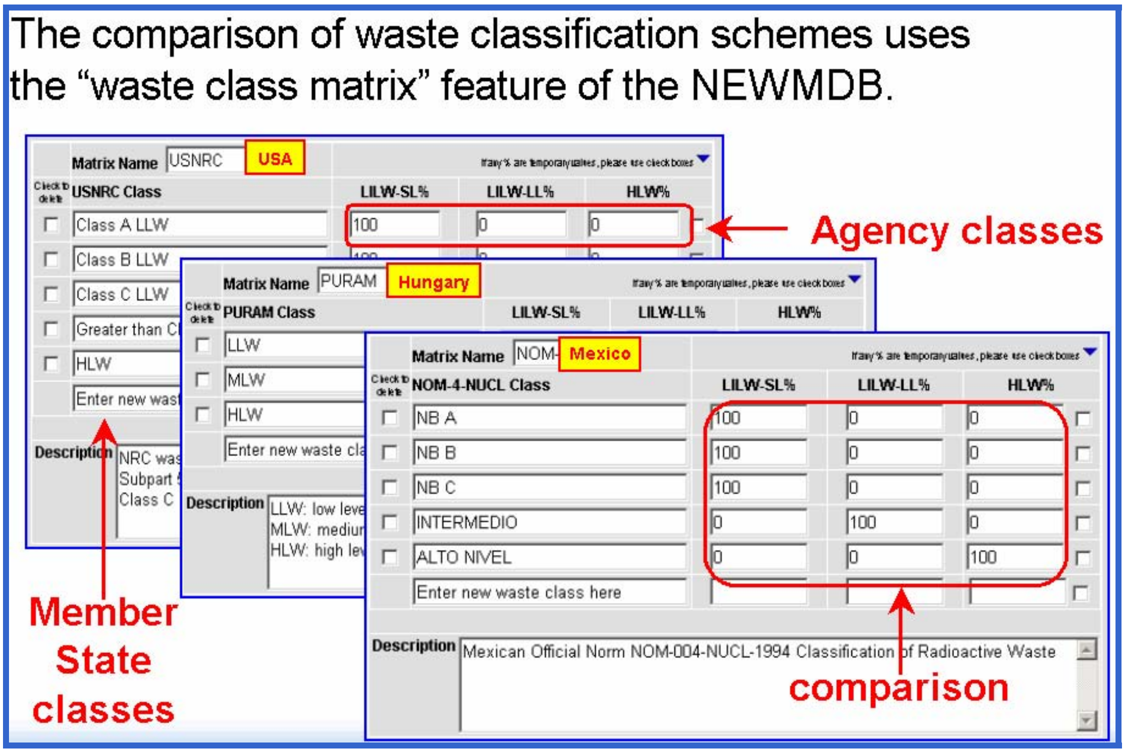


Figure 5: Overview of the Waste Class Matrix Tool in the NEWMDB

Table 1: Explanation of the Waste Class Matrix Report in Figure 7

Item in Figure 6	Description
(A)	Member States were asked to identify the waste classification schemes they use and to compare these schemes with the IAEA's proposed waste classification scheme [4]. However, some Member States do not have formally recognized waste classification schemes. Some have schemes that cannot be readily compared with the IAEA's scheme. For these Member States to be able to make a submission to the NEWMDB, they were given the option of indicating that they use the IAEA scheme for the purposes of reporting to the NEWMDB. A few Member States have adopted the IAEA scheme for use. Given this situation, Member States had to indicate whether or not they use the IAEA waste classification scheme. The Example indicates that the USA does not use the IAEA's waste classification scheme.
(B) and (C)	This is an example of a Member State that defined at least one waste class matrix, since it does not use the IAEA's common waste classification scheme. The example shows that the USA uses two waste classification schemes. One (USDOE) is used to classify wastes generated and managed by the US Department of Energy and another (USNRC) is used to classify waste generated by Nuclear Power Plants. Therefore, the CC for the USA defined two waste matrices that indicate the relationship between waste classes used in the USA (LLW, TRU, CLASS A LLW, etc.) and the IAEA's proposed waste classes (LILW-SL, LILW-LL and HLW). The Comments and Attachments features of the NEWMDB were used by CCs to indicate whether or not the identified waste classes are required by any law/regulation and also how the relationship (%) between waste classes was determined.

International Atomic Energy Agency — NEWMDB Report

Waste Class Matrix(ces) Used/Defined

Country: United States of America — Reporting Year: 2000

Waste Class Matrix: IAEA Def. , Not Used **(A)**

Description: The Agency's standard matrix

Waste Class Matrix: USDOE **(B)**

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
HLW	0	0	100
TRU	0	100	0
LLW	99.5	0.5	0
11e2	100	0	0

Description: Reference for USDOE classes: Radioactive Waste Management Manual, DOE M 435.1, 7/9/1999

Comment #85: Waste Class Comment ← **comment**

The US DOE has a waste class called "11e2" which is essentially by-product material. Keeping with NEWMDB guidance, this year "exsitu" remediation waste, e.g., moved to a disposal cell, will be reported. UMMT disposal cells will not be reported.

Attachment #135: White paper with DOE waste classfication information and crosswalk to IAEA

File name: DOEwastematrix.wpd ← **attachment (this is a hyperlink to the attachment <u>in the on-line report</u>)**

File type: WordPerfect Document

Member State's Reference # 1

Waste Class Matrix: USNRC **(C)**

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Class A LLW	100	0	0
Class B LLW	100	0	0
Class C LLW	75	25	0
Greater than Class C LLW	0	100	0
HLW	0	0	100

Description: NRC waste classes defined in Title 10, Code of Federal Regulations, Part 61, Subpart 55.
Class C split based on analysis of actual data

Attachment #134: White paper on USNRC waste classification crosswalk to IAEA classes

File name: NRCwastematrix.wpd

File type: WordPerfect Document

Member State's Reference # 2

Note: Attachments may or may not be "visible for public". If the state is "visible" users can click on the hyperlink for the attachment to view it. Attachments are provided in the format that is preferred by the Member State CC that provided it.

Figure 6: Example Waste Class Matrix Report

<u>The "Groups Overview" Report</u>

As illustrated in Figure 4, CCs customize how information about radioactive waste management programmes and inventories will be reported to the NEWMDB. With the NEWMDB, CCs define the number of Reporting Groups and within each Reporting Group they identify the waste management sites and waste management facilities (processing, storage, disposal). For facilities, CCs indicate attributes such as type, capacity, etc.

Some Member States opted to prepare national level submissions in which information was "rolled up". This type of submission provides less detail about individual sites and facilities. The CCs for these Member States created ***theoretical sites***, such as Site = "Historic" and Site = "Ongoing" for Canada, Site = "All Sites" for France and Site = "National" for Germany. The rolling up of information for reporting is suitable for reporting to the NEWMDB if a Member State also has a national reporting mechanism for radioactive waste management activities and inventories. In these cases, the NEWMDB submission provides a high-level overview for the Member State and national-level reports provide the fine detail.

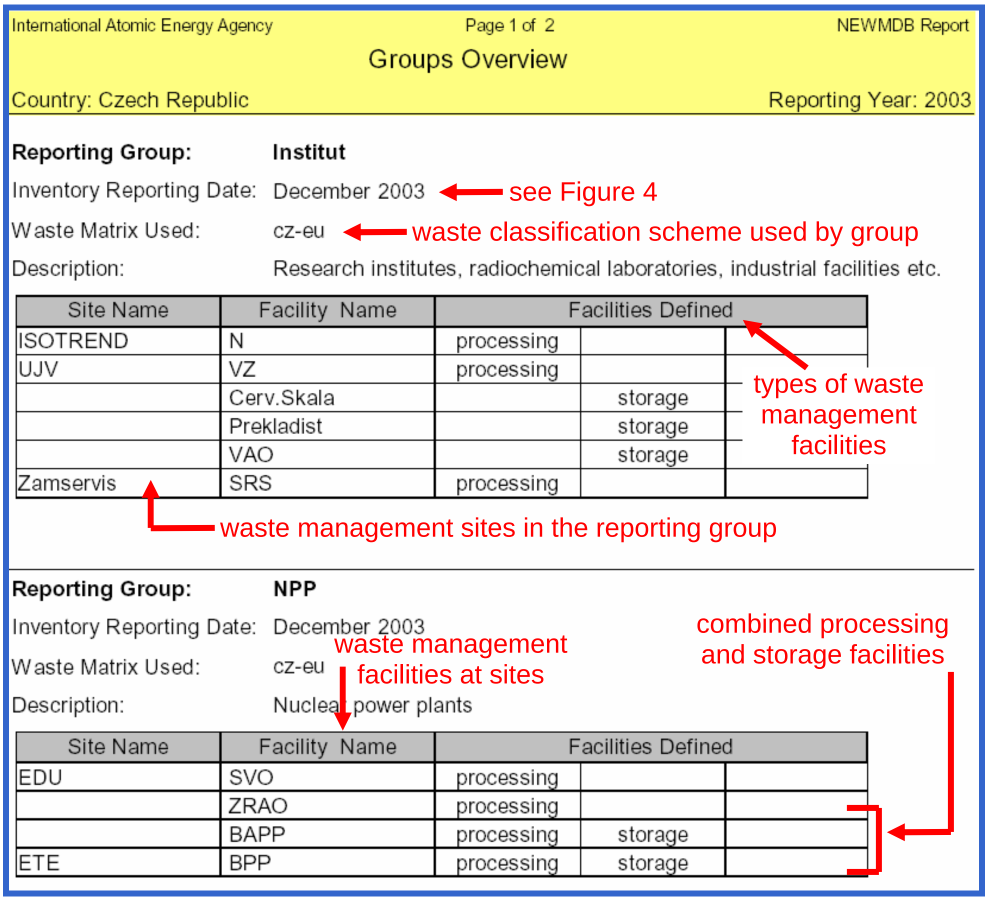
The Groups Overview report provides a brief summary of the structure of a Member State's submission to the NEWMDB – see Figures 7 and 8 for example reports and combined facilities (i.e., multipurpose).

The "Site Structure" Report

Figures 9, 10, and 11 and Table 2 illustrate part of the Site Structure report for the LANL site in the Government reporting group in the USA submission to the NEWMDB. Full details of how CCs define waste management facilities at waste management sites are provided at the following Internet page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=6-4-8

The information in Figures 9, 10, and 11 and Table 2 provides a quick guide to the Site Structure report. The "site structure" specifies the waste management facilities at a site. The information entered determines the data entry screens that are created for CCs to input additional information in the "waste data" part of their submissions (waste treatment methods, waste processing methods, waste inventories and lists of spent/disused sealed radioactive sources (SRS) – see the "Site Data" report).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Groups Overview

Country: Czech Republic — Reporting Year: 2003

Reporting Group: **Institut**
Inventory Reporting Date: December 2003
Waste Matrix Used: cz-eu
Description: Research institutes, radiochemical laboratories, industrial facilities etc.

Site Name	Facility Name	Facilities Defined		
ISOTREND	N	processing		
UJV	VZ	processing		
	Cerv.Skala		storage	
	Prekladist		storage	
	VAO		storage	
Zamservis	SRS	processing		

Reporting Group: **NPP**
Inventory Reporting Date: December 2003
Waste Matrix Used: cz-eu
Description: Nuclear power plants

Site Name	Facility Name	Facilities Defined		
EDU	SVO	processing		
	ZRAO	processing		
	BAPP	processing	storage	
ETE	BPP	processing	storage	

Figure 2: Example Groups Overview Report – Czech Republic

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Groups Overview

Country: Canada Reporting Year: 2003

Reporting Group: **National**

Inventory Reporting Date: December 2003

Waste Matrix Used: NRCan

Description: The national inventory of radioactive waste in Canada is reported according to "on going" and "historical" waste. For reporting to the NEWMDB (to allow traceability), two "theoretical sites" are defined: ONGOING and HISTORICAL

Site Name	Facility Name	Facilities Defined		
HISTORIC	PGWMF		storage	
	PHRWMF		storage	
	PSETSS		storage	
	WWMF		storage	
ONGOING	BNPD-CMLF	processing		
	Monserco	processing		
	AECL-CRL	processing	storage	
	BNPD-WWMF	processing	storage	
	AECL-WL		storage	
	BNPD-RWOS1		storage	
	HQWMF		storage	
	Pickering		storage	
	PLWMF		storage	

Figure 3: Example Groups Overview Report - Canada

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Reporting Group Government, Site Structure: LANL (A)

Country: United States of America — Reporting Year: 2004

Full Name: Los Alamos National Laboratory (B)

Location: Los Alamos, New Mexico (C)

License Holder(s): U.S. Department of Energy, Albuquerque Operations Office, Los Alamos Area Office (D)

The following list the waste management facilities that are located at this site. (E)

Facility: TA-54 TRU (E1)

Description	TRU waste facilities (E2)

Processing part of the "TA-54 TRU" facility (E3)

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1970

Storage part of the "TA-54 TRU" facility (E4)

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Capacity	1970-1979 in trenches; 1979-1991 on asphalt pads covered with soil; 1991-present in fabric domes; some RHTRU in shafts

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Buildings	building	1985	No	No	No	No
Berms	mound	1979	Yes	No	No	No
UG	trench (unlined)	1970	Yes	No	No	No

Figure 4: Example Site Structure Report – LANL Site USA (Part 1)
(please see Table 2)

Reporting Group Government, Site Structure: LANL

Country: United States of America Reporting Year: 2004

Facility: TA54 AreaG

Description	Area G disposal area, Technical Area 54; waste compactor is treatment

Processing part of the "TA54 AreaG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1945

Disposal part of the "TA54 AreaG" facility (E5)

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	1600000	Capacity -planned (m3)	1600000
% of existing capacity used	13.4	Depth (m)	2-20
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1957	1957
operation		1957	2070
closure	Yes	2070	2070
institutional control	Yes	2070	

Figure 5: Example Site Structure Report – LANL Site USA (Part 2) (please see Table 2)

Table 2: Explanation of Site Structure Report in Figure 10 and Figure 11

<table>
<tr><th>Item in
Figure 10</th><th>Description</th></tr>
<tr><td>(A)</td><td>short name of the waste management site (short names facilitate display of names on data input screens)</td></tr>
<tr><td>(B)</td><td>full name of the site</td></tr>
<tr><td>(C)</td><td>location of the site
The IAEA does not allow the publication of locations that specify geographical co-ordinates. In addition, CCs can select whether or not they want locations to be made publicly available.</td></tr>
<tr><td>(D)</td><td>license holder(s) for the site</td></tr>
<tr><td>(E)</td><td>list of waste management facilities at the site
Note: Full details of how CCs define waste processing and storage facilities at waste management sites are provided at the following Internet pages:
http://www-newmdb.iaea.org/showhelp.asp?Topic=6-4-7
http://www-newmdb.iaea.org/showhelp.asp?Topic=6-4-8

The text that follows below provides a quick guide and should be adequate for most readers to understand the contents of a Site Structure report.

(E1): short name of the facility
(E2): description of the facility
A facility may be processing (waste treatment and/or conditioning), storage or disposal, including any combination of these types (e.g., combined processing / storage). Figure 10 indicates a combined processing / storage facility (as indicated by both a “processing part” and a “storage part”).

The following is from the NEWMDB’s on line glossary:

<u>processing</u>
any operation that changes the characteristics of waste, including pretreatment, treatment and conditioning

<u>pre-treatment</u>
any or all of the operations prior to waste treatment, such as collection, segregation, chemical adjustment and decontamination

<u>treatment</u>
operations intended to benefit safety and/or economy by changing the characteristics of waste. Three basic treatment objectives are:
- volume reduction;
- removal of radionuclides from the waste; and
- change of composition.

<u>conditioning</u>
operations that produce a waste package suitable for handling, transport, storage and/or disposal Conditioning may include the conversion of the waste to a solid waste form, placement of the waste in containers and, if necessary, providing an overpack.

(E3): details of the processing part of a facility
• if waste is stored in the processing facility, CCs indicate which classes are stored by checking Actual boxes; checking an Actual box forces an inventory data input screen for the waste class in the waste data part of a submission; checking the planned box indicates that there are plans to store additional wastes beyond the current report year
• if SRS are stored, CCs check the Actual box; checking the planned box indicates that there are plans to store additional SRS beyond the current report year
• list SRS (yes/no): A yes answer forces an SRS input screen in the waste data part of a submission.
• type (treatment and/or conditioning)
• year opened: the purpose of this data field is to create statistics on the ages of facilities</td></tr>
</table>

	(E4) details of the storage part of a facility • CCs indicate which classes are stored by checking Actual boxes; checking an Actual box forces an inventory data input screen for the waste class in the waste data part of a submission; checking the planned box indicates that there are plans to store additional wastes beyond the current report year • if SRS are stored, CCs check the Actual box; checking the planned box indicates that there are plans to store additional SRS beyond the current report year • list SRS (yes/no): A Yes answer forces an SRS input screen in the waste data part of a submission. • capacity: the intent of this field was to have CCs comment on whether or not capacity was sufficient for the foreseeable future; however, some CCs used the field to put general comments about the facility • list of storage units and their parameters; if list SRS = yes, at least one storage unit must indicate Contains SRS
Item in Figure 11	**Description**
	(E5) details of the disposal part of a facility Note: Full details of how CCs define disposal facilities at waste management sites are provided at the following Internet page: http://www-newmdb.iaea.org/showhelp.asp?Topic=6-4-10 The text that follows below provides a quick guide and should be adequate for most readers to understand the contents of a Site Structure report. • CCs indicate which classes are disposed by checking Actual boxes; checking an Actual box forces an inventory data input screen for the waste class in the waste data part of a submission; checking the planned box indicates that there are plans to dispose additional wastes beyond the current report year • if SRS are disposed, CCs check the Actual box; checking the planned box indicates that there are plans to dispose additional SRS beyond the current report year • list SRS (yes/no): A yes answer forces an SRS input screen in the waste data part of a submission. • type: CCs select the type of disposal facility from a "pick list" • modular (yes/no): CCs indicate if a facility is modular or not (i.e., is there a planned expansion?) • capacity: both existing and planned capacity are specified (for non modular, these are usually equal) • % capacity used and depth of facility: self explanatory fields • host medium: CCs specify the geology surrounding the repository • phase: CCs indicate the various phases in which a repository is implemented

The "Site Data" Report

Figure 11 illustrates the relationship between the reporting structure that is defined by a Country Co-ordinator and the waste data screens that are created to input information for his/her country's submission to the NEWMDB. Figure 11 is from the English version of the submission flowchart that was developed to assist CCs with preparing their submissions to the NEWMDB. As noted in the Introduction, the submission flowcharts are available in all IAEA Official Languages (Arabic, Chinese, English, French, Spanish and Russian). Flowcharts can be accessed via the following Internet page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=17-1-1

Figures 12 through 15 and Table 3 illustrate part of the Site Data report for the RWMF site in the CPHR reporting group in the submission from Cuba (2004). Full details of Site Data information are provided at the following Internet page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=7-1-5

The information below provides a quick guide to the Site Structure report.

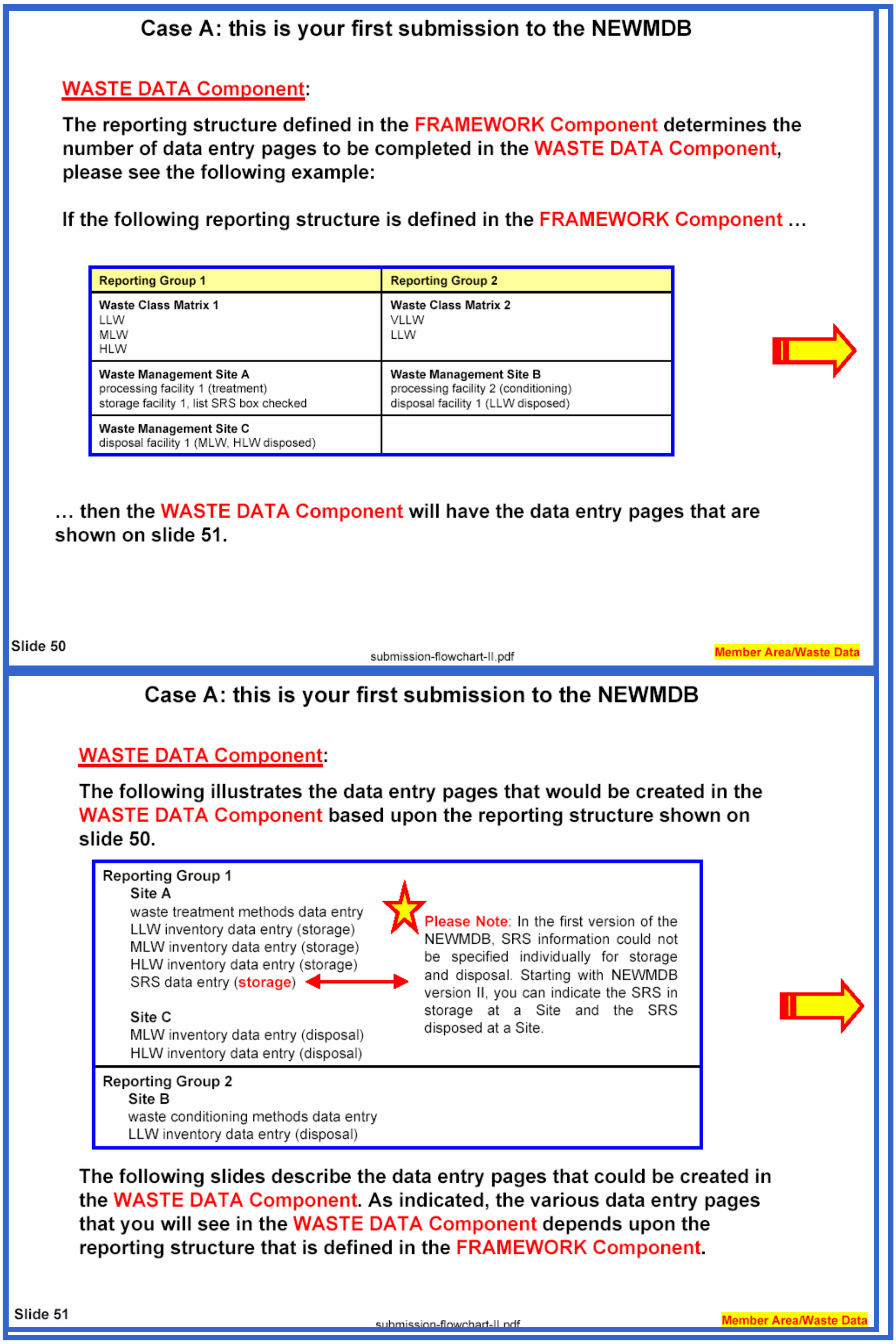
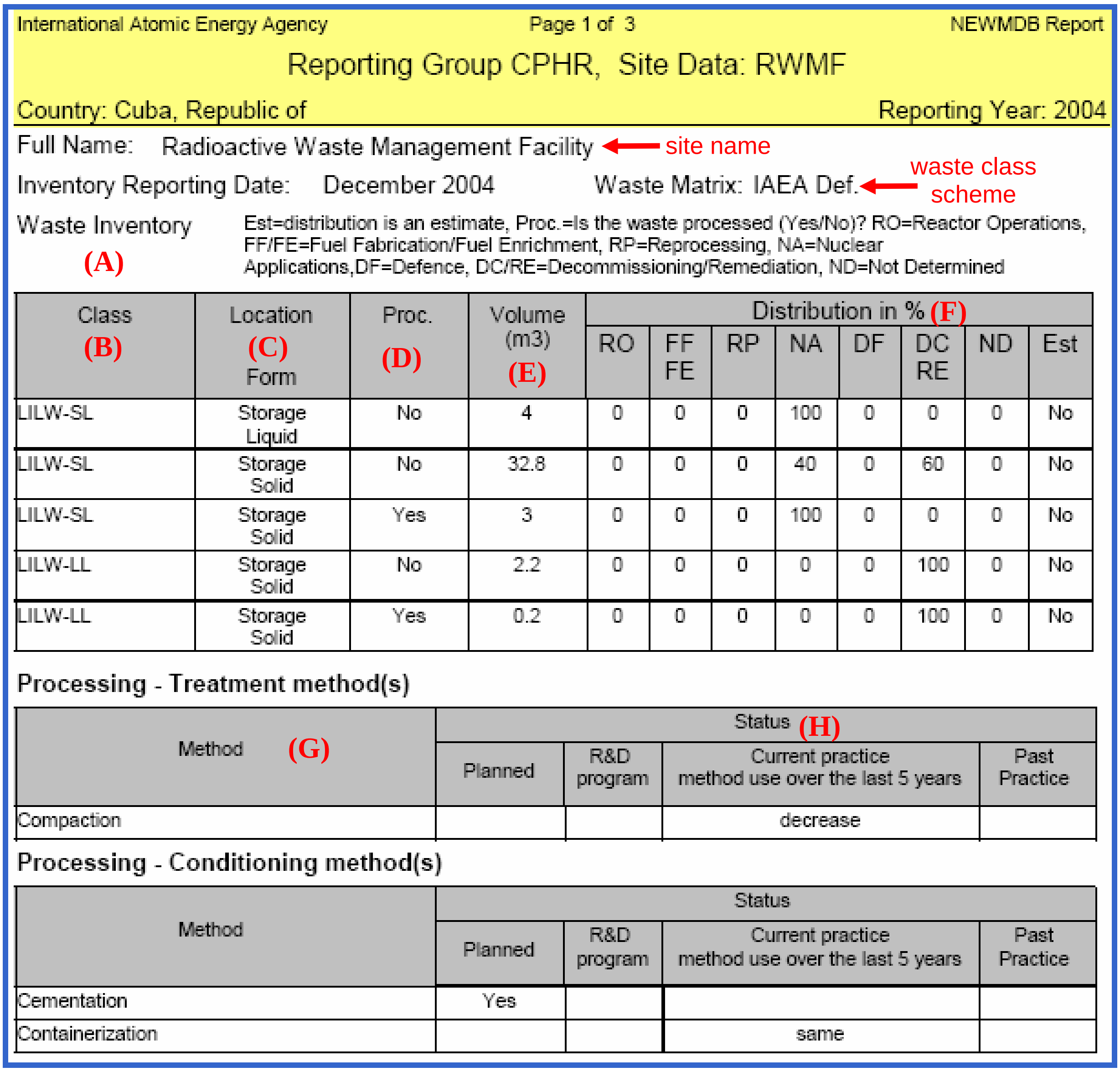


Figure 6: Site Structure – Site Data Relationship



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Reporting Group CPHR, Site Data: RWMF

Country: Cuba, Republic of | Reporting Year: 2004

Full Name: Radioactive Waste Management Facility ← site name

Inventory Reporting Date: December 2004 | Waste Matrix: IAEA Def. ← waste class scheme

Waste Inventory (A)

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications, DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class (B)	Location (C) Form	Proc. (D)	Volume (m3) (E)	Distribution in % (F)							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage Liquid	No	4	0	0	0	100	0	0	0	No
LILW-SL	Storage Solid	No	32.8	0	0	0	40	0	60	0	No
LILW-SL	Storage Solid	Yes	3	0	0	0	100	0	0	0	No
LILW-LL	Storage Solid	No	2.2	0	0	0	0	0	100	0	No
LILW-LL	Storage Solid	Yes	0.2	0	0	0	0	0	100	0	No

Processing - Treatment method(s)

Method (G)	Status (H)			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			decrease	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	Yes			
Containerization			same	

Figure 7: Example Site Data Report – RWMF Site Cuba (Part 1)
(please see Table 3)

Spent Sources <=30 years in storage (A)

Nuclide (B)	Number of Sources/Total Activity of Sources (GBq) (C)			cond	uncond (D)	cat. (E)	Total Activity for all Groups (GBq) (F)	Decay Date (G)
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Cs-137		361		Yes	No	3	2.82E+04	
		2.82E+04						
Cs-137		13		No	Yes	2	1.87E+03	
		1.87E+03						
Cs-137		91		Yes	No	2	1.20E+04	
		1.20E+04						
Cs-137		5		Yes	No	1	2.12E+04	
		2.12E+04						
Cs-137	25			No	Yes	5	3.00E+00	
	3.00E+00							
Pb-210	70			Yes	No	5	1.00E-03	
	1.00E-03							
Kr-85	205			No	Yes	5	1.50E+00	
	1.50E+00							
Kr-85	21			Yes	No	5	1.00E+00	
	1.00E+00							
Sr-90	57			No	Yes	5	4.00E+00	
	4.00E+00							

Figure 8: Example Site Data Report – RWMF Site Cuba (Part 2)
(please see Table 3 for notes)

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Pu-239 Neutron Gen.		6	No	Yes	3	1.09E+03	
		1.09E+03					
Pu-238 Neutron Gen.		5	No	Yes	3	2.43E+02	
		2.43E+02					
Am-241 Neutron Gen.		4	No	Yes	3	6.30E+02	
		6.30E+02					
Am-241 Neutron Gen.	9		No	Yes	4	1.10E+01	
	1.10E+01						
Am-241	12747		No	Yes	5	1.10E+01	
	1.10E+01						
Am-241	8	7	No	Yes	4	5.20E+01	
	1.30E+01	3.90E+01					
Ni-63	4		Yes	No	5	1.60E+00	
	1.60E+00						
Pu-239	25		No	Yes	5	2.00E-02	
	2.00E-02						
Ra-226	1005		No	Yes	4	1.70E+02	
	1.70E+02						

Figure 9: Example Site Data Report – RWMF Site Cuba (Part 3)

Multiple Nuclides Spent Sources in storage

Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
Am-241	1.000E-03	No	Yes	4	
Sr-90	1.000E-03				

Figure 10: Example Site Data Report – RWMF Site Cuba (Part 4)

Table 3: Explanation of the Site Data Report in Figure 12 through Figure 15

Item in Figure 12	**Description**
(A)	**Inventory report table** Each Reporting Group is assigned a waste class matrix, which identifies one or more waste classes. The inventory report table is used to indicate the total volume of waste for each class of waste at each waste management site in the Reporting Group (if a site has multiple waste management facilities, the default situation is to report only the total volume in all facilities). See item (C) below
(B)	name of waste class
(C)	**location (storage or disposal), facility (optional) and waste form (optional)** CCs can decide to report waste inventories according to the following options: (1) total waste at the site reported for each class of waste (2) total waste in each facility at the site reported for each class of waste (3) total liquid and/or solid waste at the site for each class of waste (4) combinations of the above options
(D)	**processing status** (Yes = waste is processed, No = waste is not processed) In its current implementation, the processing status only indicates if the waste is "as generated" (unprocessed) or if some treatment and/or conditioning has been performed.
(E)	**volume of waste in m^3**
(F)	**distribution of waste by origin** The purpose of this field is to indicate the amounts of waste that have relatively consistent characteristics versus those that may have more widely varying characteristics. This can be useful for estimating future requirements for managing wastes. For example, many wastes from nuclear power plants (reactor operations waste) have relatively consistent characteristics. Therefore, knowledge of today's wastes can be used to estimate the inventories (volumes, radionuclides, chemical properties, etc) of future wastes. On the other hand, there may be large uncertainties about the characteristics of decommissioning wastes, notably if different types of facilities are to be decommissioned (i.e., knowledge of today's decommissioning wastes may not be a good indicator of the inventories of future decommissioning wastes). Many Member States, even those with advanced data management systems, do not track wastes according to the origins indicated. Therefore, the percentages reported may be best estimates (the "Est" column indicates these cases). The origin of some or all of the waste may not be known or assessed. The "ND" column is used to indicate this situation.
(G)	**list of treatment methods at the site or list of conditioning methods at the site** (see Figure 13); CCs choose methods from a pick list of methods
(H)	**implementation/usage status for the treatment or conditioning method**

Planned	R&D	Current	Past
X			
	X		
		X	
			X
X			X
	X		X
	X	X	

	If Planned = "Yes", the Member State plans to use the method in the future but it does not currently use the method nor does it have an R&D programme in place for the method. Database rules require that Planned must be "No" if R&D = "Yes" and/or Current indicates that the method is currently in use. R&D = "Yes" indicates that the Member State has an active research and development programme for the method. The Member State can indicate that it has an R&D programme even though the method is currently in use (e.g., for improving the method). Current = decrease, same, increase, suspended or intermittent: If the method is currently in use, the Member State indicates if there is a change in usage over the last five years. The values increase, same and decrease are relative indicators. The following Internet page illustrates how to select the value: http://www-newmdb.iaea.org/showhelp.asp?Topic=7-3-2 Past practice = "Yes" if the Member State had used the method in the past but currently the method is no longer in use (excludes suspended or intermittent, implies no intention to reuse the method).
Item in Figure 13	**Description**
(A)	**SRS inventory report table** Spent/disused sealed radioactive sources (SRS) were handled as a special case in the NEWMDB for two reasons: (1) For some Member States, the only radioactive wastes requiring management are (a) wastes that can undergo delay/decay and be released as non-radioactive waste and (b) spent/disused SRS. Typically the volumes of spent/disused SRS are small but the hazard can be high (such as high activity Co-60 SRS or long-lived radium SRS). If these Member States were to report only volumes of waste (see Figure 12), the low volumes would not be indicative of the risk involved and the waste management efforts needed to deal with SRS. (2) Accidents with spent/disused SRS account for a significant proportion of all radiation accidents. Accidents occur because SRS fall out of regulatory or operational control, for example they get lost or abandoned, and they are discovered by persons who are unaware of the risks they pose. Therefore, some Member States felt that it was necessary to include lists of spent/disused SRS in the NEWMDB. However, often there is confusion about the relationship between controlling SRS and the purpose of waste management databases, like the NEWMDB. The tracking and accounting of individual SRS before they reach waste management facilities is important to ensure that they do not fall out of regulatory or operational control. However, once they reach waste management facilities, there is no strict need to track all SRS individually. For example, some Member States' waste management facilities accept hospital, university, industrial and/or research facility wastes that contain SRS as a component of waste packages. A 210L drum may contain items such as paper, cloth, and glass contaminated with radionuclides and it may also contain a number of small activity, low hazard SRS. Typically, a package is tracked in a waste management facility, not the individual items in the package. While a package's characteristics may be entered into a database (such as the amount of Cs-137 in the package), the Cs-137 may derive from one or more SRS in the package as well as from other items. The result is that some waste management facilities may not maintain a complete listing of individual SRS they possess. This is especially true for wastes managed over many years when SRS tracking was not the issue it is today. For many large waste management organizations, "waste is waste" and only "significant" SRS may be tracked individually. These organizations would not be able to report a comprehensive list of the SRS in their storage or disposal facilities. The above discussion indicates that the provision of lists of SRS to the NEWMDB will not result in the compilation of a complete list of SRS in IAEA Member States. For the foreseeable future, the provision of lists of SRS to the NEWMDB could be considered as a valuable source of information for (a) Member States where spent/disused SRS are the most significant (or only) wastes managed and (b) Member States that report only inventories of highest hazard SRS. The inventories of spent/disused SRS are reported in two groups: (1) SRS with half lives less than or equal to the half life of Cs-137 (30.12 years, nominally indicated in the database as 30 years – see Figure 13) and (2) SRS with half lives greater than the half life of Cs-137 - Figure 14.

(B)	**name of radionuclide(s)** CCs can specify multi-radionuclide SRS – see Figure 15 where a single SRS with both Am-241 and Sr-90 is shown. Single SRS with up to four radionuclides can be specified.
(C)	**number of SRS and their activity** Based on manufacturing data for SRS, Member States were asked to identify SRS according to activity ranges. Item (C) in Figure 13 illustrates that there are three activity ranges for radionuclides with half lives less than or equal to 30 years. Figure 14 illustrates that there are two ranges for SRS with half lives greater than 30 years. In the IAEA's previous waste management database, Member States were asked to list individual SRS, which can be an enormous burden to do. The NEWMDB allows the input of groups of SRS, where the number of SRS in the group and their total activity is entered. PLEASE NOTE: grouping is according to the activity of individual SRS, it is not according to the total activity of SRS in the group. In the example in Figure 13, the average activity of SRS in a group (the total activity reported for the group divided by number of SRS in a group) must be within the range of activities for the group. The following is the Internet address to an Acrobat PDF file that provides examples of how Member States can group SRS in their NEWMDB submissions: http://www-newmdb.iaea.org/help/examples.pdf The activity of SRS or groups of SRS is reported in GBq.
(D)	**conditioning status** This field indicates whether or not SRS are in an "as generated" state or they have been conditioned. If SRS are grouped, the following combinations are valid: cond = No, uncond = Yes (all SRS unconditioned) cond = Yes, uncond = No (all SRS conditioned) cond = Yes, uncond = Yes (mix of unconditioned and conditioned SRS)
(E)	Member States have the **option** of categorizing sources according to the scheme in the Agency technical document IAEA-TECDOC-1344 (July 2003), "Categorization of Radioactive Sources"[8]. A value 0 indicates that the IAEA categorization scheme is not specified. Other pick list values indicate the relevant category in the cited technical document.
(F)	**total activity** the value in this field is calculated by an NEWMDB algorithm. It is the total activity reported for all radionuclides listed on the same line of the report. The activity is reported in GBq.
(G)	**decay date** Due to radioactive decay, the activity of SRS decline over time. This is particularly significant for SRS with half lives less than or equal to 30 years, especially for radionuclides like Co-60 (about 5 years). As such, it is common practice to report the activity of SRS as of a particular reference date to allow anyone to calculate the activity of the SRS at any future date relative to the reference date. The decay date field means that the activity cited for the identified SRS or group of SRS is the activity as of the cited date. If the decay date is an estimate, the word "estimate" appears in the report.

In the General Information part of the NEWMDB, CCs identify who regulates radioactive waste, the regulations/laws that are relevant to radioactive waste management, significant milestones in radioactive waste management in their countries, and radioactive waste management policies. The following describes the various reports that are created based on information entered by CCs. Note: None of the data fields are "required" – CCs decide what information will (or can) be provided. For example, a Member State may not have a regulator, it may not have any relevant laws, etc.

Figure 16 provides an example of a "Regulators report". Additional details can be accessed via the following Internet page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=6-6-2

Figure 17 provides an example of a Regulations/Laws report. Additional details can be accessed via the following Internet page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=6-6-4

Figure 18 provides an example of a "Milestones" report. Additional details can be accessed via the following Internet page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=6-6-6

Figure 19 provides an example of a "Policies" report. Additional details can be accessed via the following Internet page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=6-6-9

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REGULATORS

Country: Hungary, Republic of | Reporting Year: 2003

Name	SPHAMOS
Full Name	State Public Health and Medical Officer's Service
Division	
City or Town	Budapest

Comment #6582: Wastes that are regulated by the Regulator

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix PNPP - HLW, LLW, MLW; Matrix PURAM - HLW, LLW, MLW

Name	HAEA
Full Name	Hungarian Atomic Energy Authority
Division	
City or Town	Budapest

Comment #6583: Wastes that are regulated by the Regulator

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix PNPP - HLW, LLW, MLW

Figure 11: Example of a Regulators Report (Hungary)

International Atomic Energy Agency | Page 1 of 1 | NEWMDB Report

REGULATIONS/LAWS

Country: Romania | Reporting Year: 2003

Name	111/1996	
Title or Name	Law 111/1996 (as amended) on safe conduct of nuclear activities	
Reference Number	111/1996	
Date Promulgated or Proclaimed	1996-12-28	Law

Comment #6608: Wastes that are regulated by the Law

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix NPP waste - type 1, type 2, type 3

Name	RSFN	
Title or Name	Radiation Safety Fundamental Norms approved by the order of the President of National Commission for Nuclear Activities Control	
Reference Number	Order 14/2001	
Date Promulgated or Proclaimed	2000-08-29	Regulation

Comment #6609: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix NPP waste - type 1, type 2, type 3

Figure 12: Example of a Regulations/Laws Report (Romania)

International Atomic Energy Agency	Page 1 of 1	NEWMDB Report
	MILESTONES	
Country: Spain, Kingdom of		Reporting Year: 2003

Start Year or Reference Year:	1951	End Year	
Description of Milestone			
The Nuclear Energy Board (JEN) was created as the organization in charge of all fields related to nuclear energy. In 1986 it was renamed CIEMAT.			
Start Year or Reference Year:	1964	End Year	
Description of Milestone			
The Spanish Nuclear Energy Law was enacted			
Start Year or Reference Year:	1968	End Year	
Description of Milestone			
The first Spanish NPP (C.N. Jose Cabrera) was connected to the grid			
Start Year or Reference Year:	1980	End Year	
Description of Milestone			
The Spanish Nuclear Safety Council was created			
Start Year or Reference Year:	1984	End Year	
Description of Milestone			
The Spanish Radioactive Waste Management Company (ENRESA) was created by Royal Decree			
Start Year or Reference Year:	1987	End Year	
Description of Milestone			
The Spanish First General Radioactive Waste Plan was approved by the Government.			

Figure 13: Example of a Milestones Report (Spain)

International Atomic Energy Agency	Page 1 of 5	NEWMDB Report
	Policies	
Country: Finland, Republic of		Reporting Year: 2003

National Systems

Policy	(Yes;Partially;No)
Has your Country implemented a national policy for radioactive waste management?	Yes
Strategies	(Yes;Partially;No)
Has your country developed strategies to implement a national policy?	Yes
Requirements	(Yes;Partially;No)
Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
identified the parties involved in the different steps of radioactive waste management	Yes
specified a rational set of safety, radiological and environmental protection objectives	Yes
implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
implemented controls over radioactive waste generation	Yes
identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes

Figure 19: Example Policies Report (Partial) - Finland

References

[1] home page of the Net Enabled Waste Management Database (NEWMDB)
http://www-newmdb.iaea.org

[2] top page for the NEWMDB's On-Line Help
http://www-newmdb.iaea.org/help.asp

[3] Csullog, G.W., Pozdniakov, I., Shah, U., Kostitsin, V., Bell, M.J., "The International Atomic Energy Agency's Net-Enabled Waste Management Database", Waste Management 2001 Symposium, Tucson, Arizona, USA, February 2001.

[4] International Atomic Energy Agency, "Classification of Radioactive Wastes", Safety Guide, Safety Series 111-G-1.1, IAEA, Vienna, 1994.

[5] International Atomic Energy Agency, "Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management", Information Circular INFCIRC/456, 24 December 1997.

[6] Csullog, G.W., Pozdniakov, I., Bell, M.J., "Current Status of the IAEA's Net Enabled Waste Management Database", Waste Management 2003 Symposium, Tucson, Arizona, USA, February 2003.

[7] Csullog, G.W., Pozdniakov, I., "The IAEA's net enabled waste management database - Development and implementation of version II", Proceedings of Disposal Technologies and Concepts 2004 (DISTEC 2004), International Conference on Waste Disposal, 26-28 April, 2004

[8] International Atomic Energy Agency, "Categorization of Radioactive Sources". IAEA-TECDOC-1344 July 2003.

Instructions for Accessing Data from the NEWMDB's 2006 Data Collection Cycle

This document serves as an overview for accessing data compiled during the 2006 data collection cycle for the NEWMDB, which was conducted March – December 2007.

Background Information:

After data submissions have been completed and approved, they are published and become accessible via the NEWMDB's Public Area. Any member of the public can access the Public Area, however, registration is required (this was requested by some Member States during the development of the NEWMDB). Please refer to Figure 1 and Figure 2 regarding Public User registration.

Accessing Data:

Figure 3 to Figure 11 illustrate how to access published NEWMDB information after signing in as a Public User (note, Authorized Users do not have to sign in as Public Users if they are already logged in as Authorized Users).

Accessing information in Reading Rooms:

Figure 1 indicates "Click to receive Reading Room news". See Figure 12 to Figure 15 for an overview of the Reading Rooms feature and the "subscription" option.

For additional information about accessing publicly available information via the NEWMDB, please contact the NEWMDB Programme Officer via e-mail (NEWMDB@iaea.org).

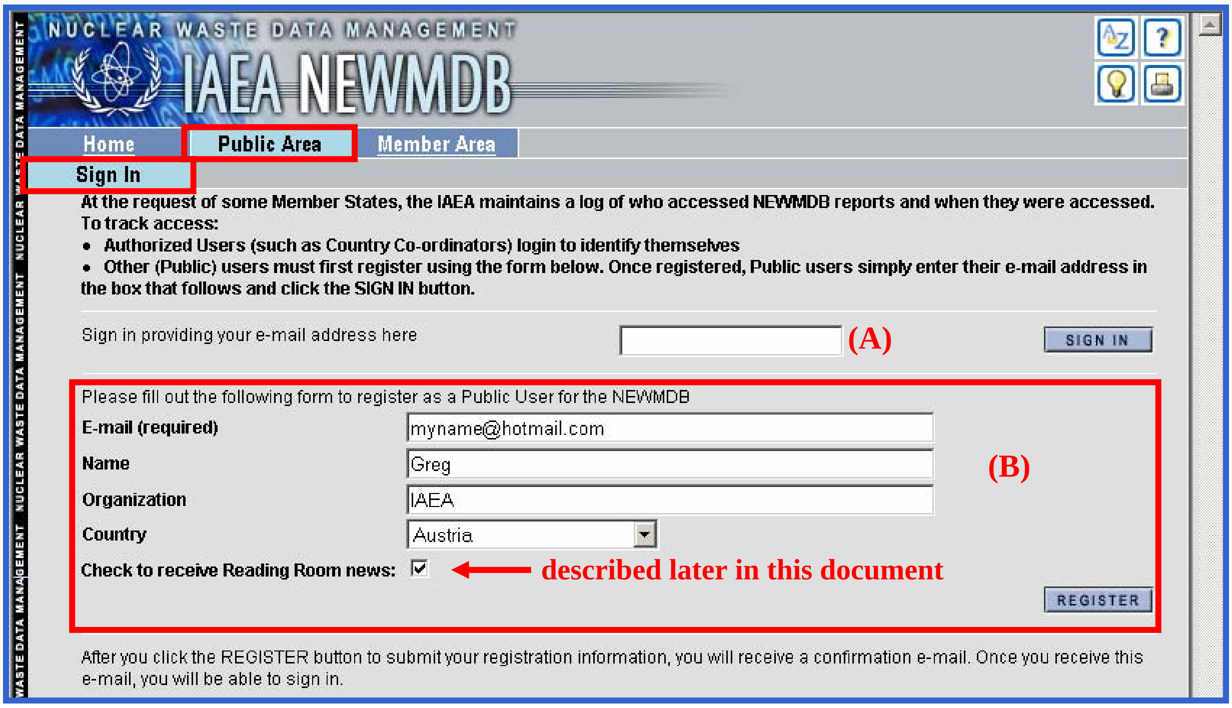

Figure 1: Public User registration screen

The above screen is displayed if a user clicks the Public Area tab and is not already signed in as a Public User or logged in as an Authorized User. If you have not registered as a Public User, you complete the form shown by (B) and click the REGISTER button. If you are already a registered user but currently not signed in, you enter the e-mail address your provided when you registered, as shown by (A), and you click the SIGN IN button.

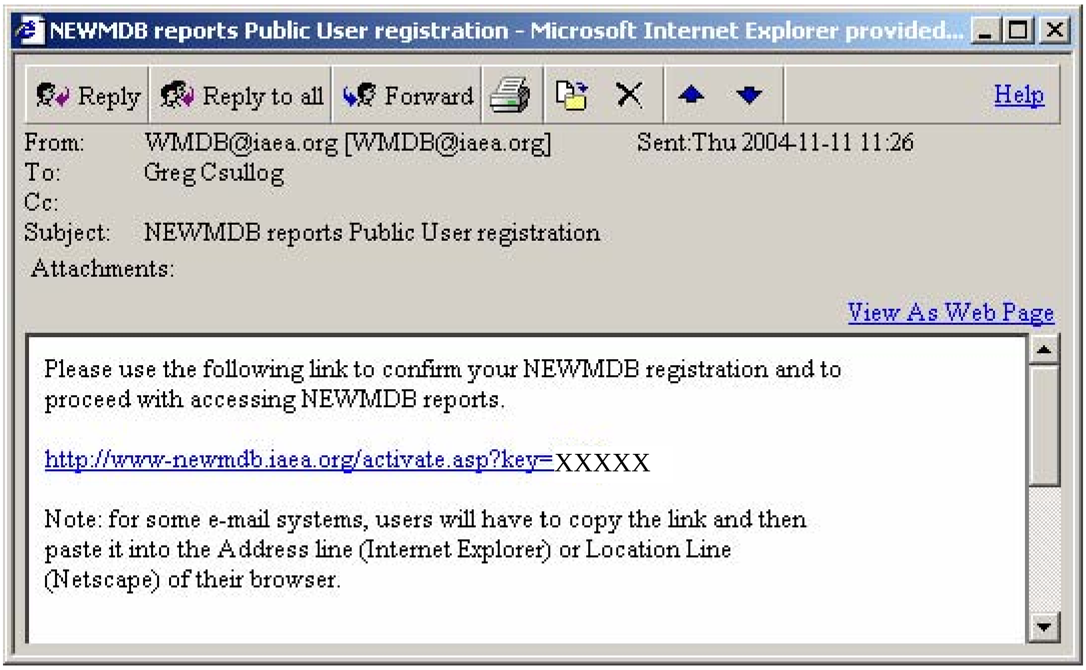

Figure 2: Example of a registration e-mail

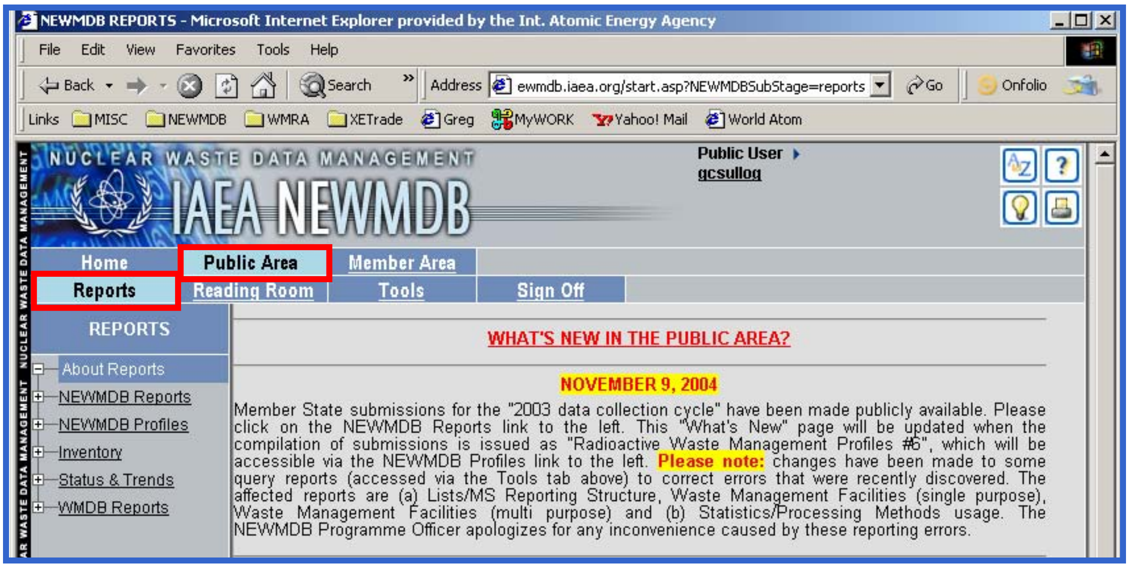

Figure 3: Top level page for the Public Area

If you are signed in as a Public User, when you click the Public Area tab, the top level page (Reports) for the Public Area will be displayed, as illustrated above.

As indicated in Figure 3, published reports are accessible via the REPORTS list in the left-hand column of the screen. Only part of the top level page for the Public Area is shown in Figure 3 – the remainder of the screen contains brief descriptions of the various reports that can be accessed.

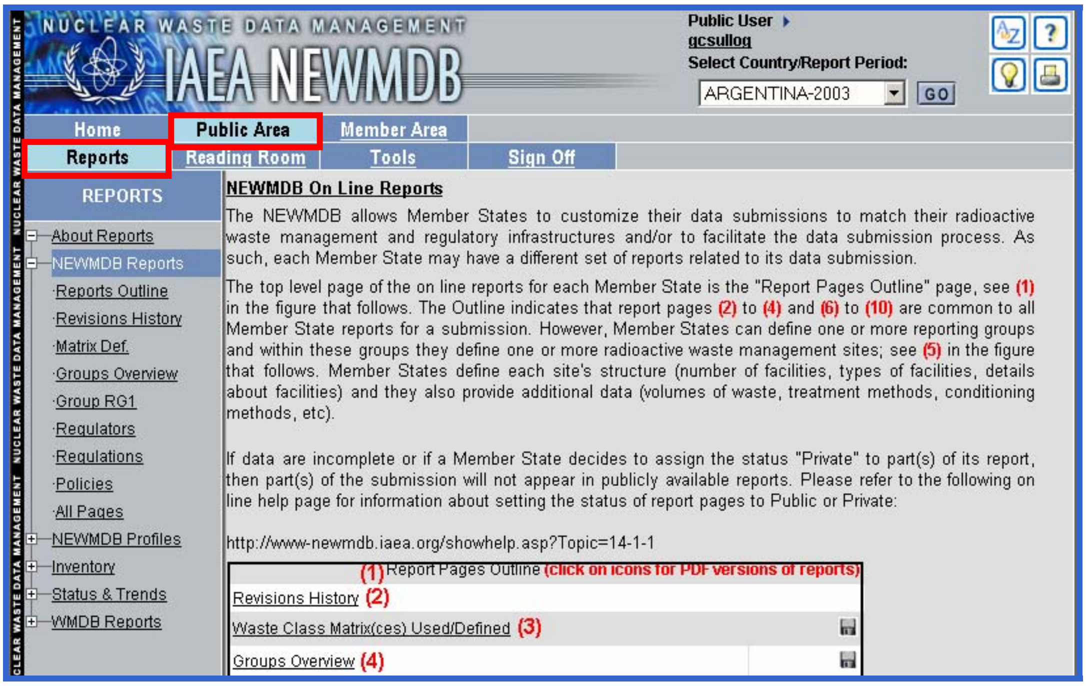

Figure 4: Top level page of NEWMDB On-Line Reports

The top level page for on line NEWMDB reports provides a brief description of the structure of on line reports, including a discussion of how the structure can vary for individual reports. Note that it is an explanation only and the example provided has no working links. To select a Country, go to the top right box, as shown below in Figure 5, and after making a selection (country and reporting year) click the “GO” button.

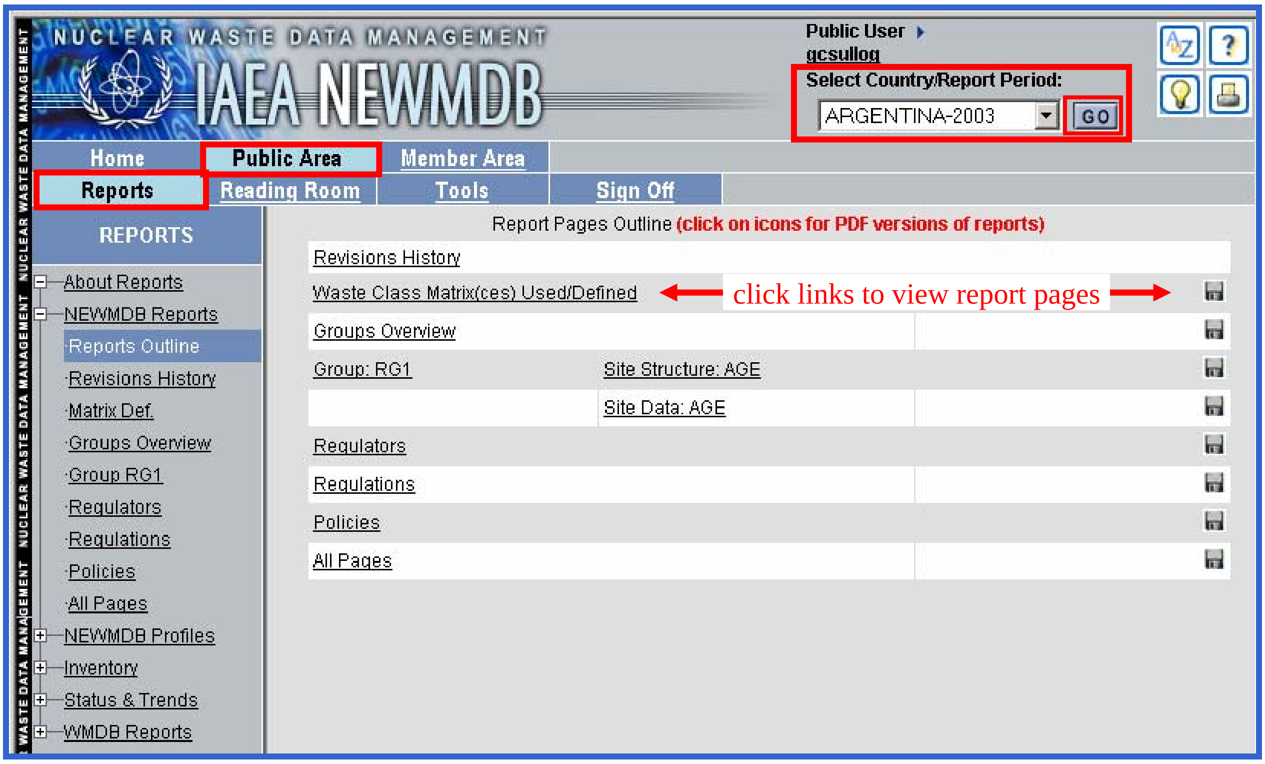

Figure 5: Example of the top level page for an individual Member State’s on line report

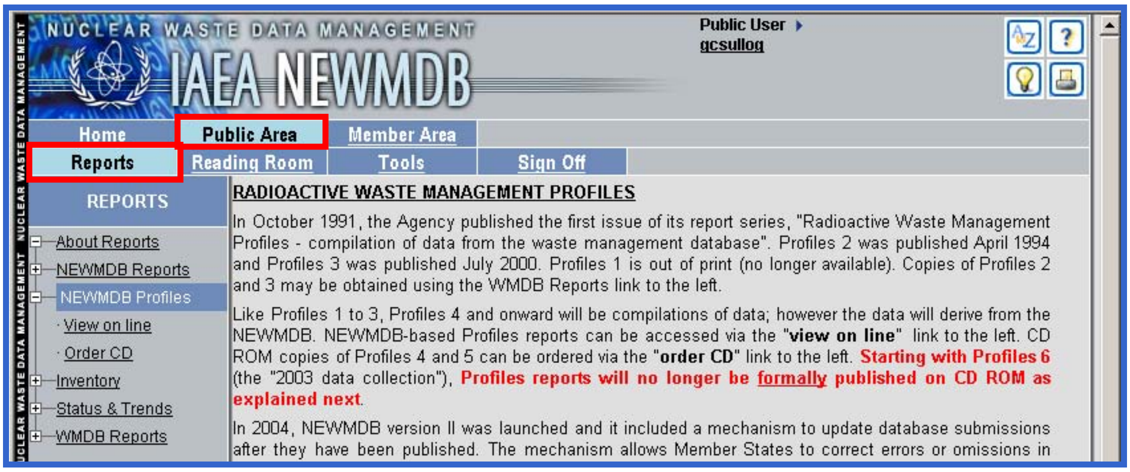

Figure 6: Top level page of NEWMDB Profiles Reports

The top level page for the Profiles reports explains how to access these reports on line and how to obtain CD ROM copies of reports (please take note of the red text in Figure 6).

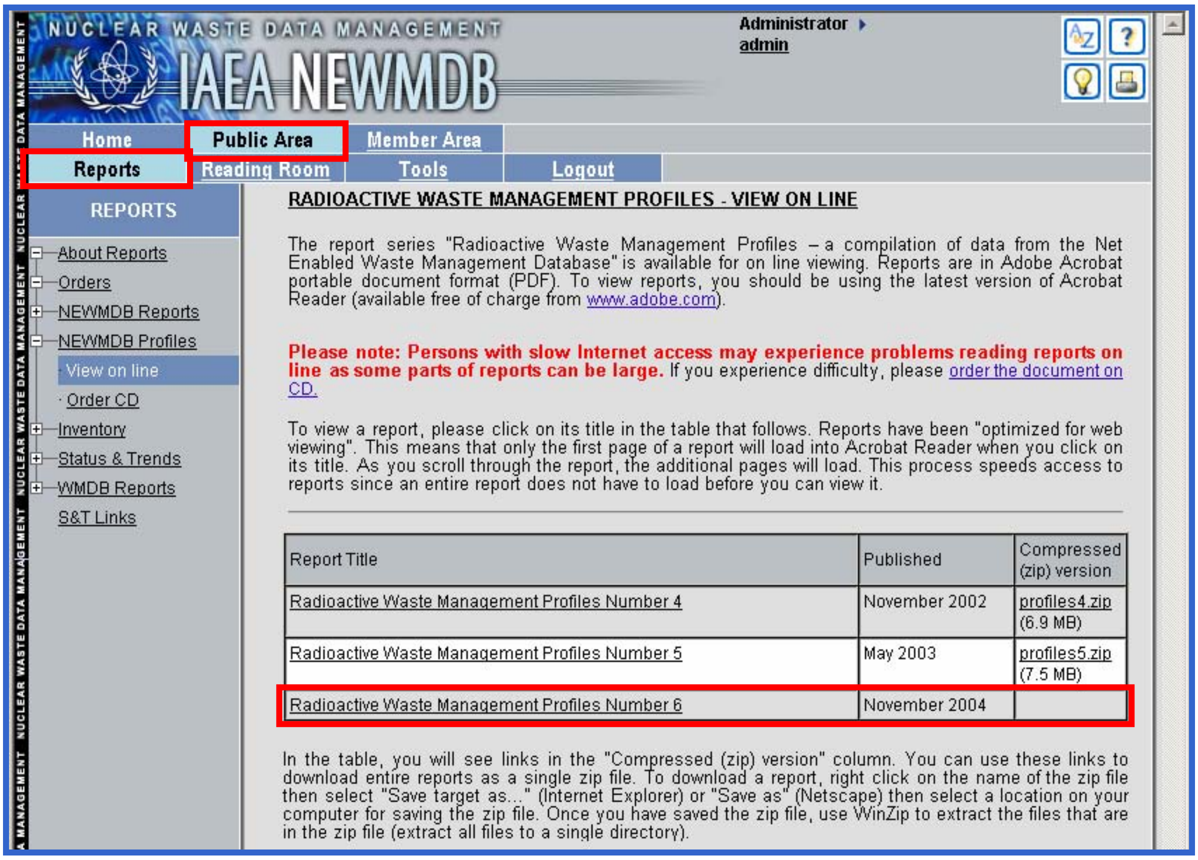

Figure 7: Access to viewing Profiles reports on-line

The following figures provide a quick overview of the utilities that provide Public Users with additional database reports.

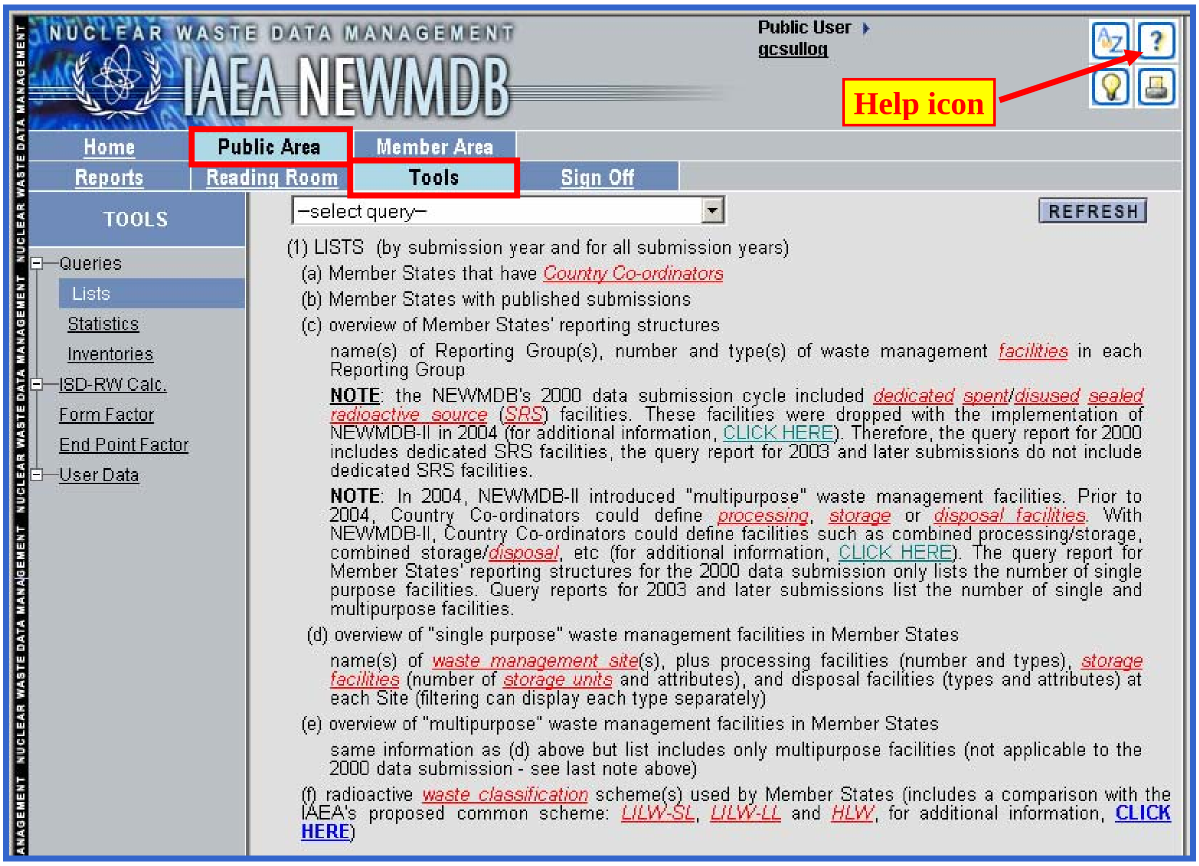

Figure 8: Top-level page for publicly available query tools

First, select the type of query from the menu on the left side. Then, select a query from the drop down list, and click the "REFRESH" button to display the query report. You can also click the Help icon for additional information about query tools.

The following figures provide examples of "Lists", "Statistics" and "Inventories" query reports.

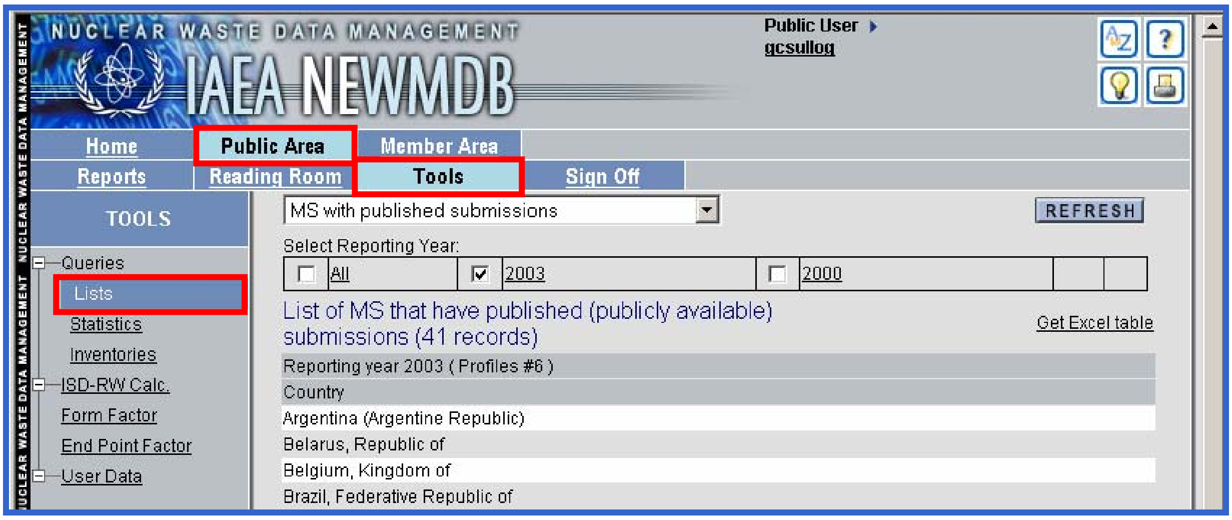

Figure 9: Example of a "Lists" query report

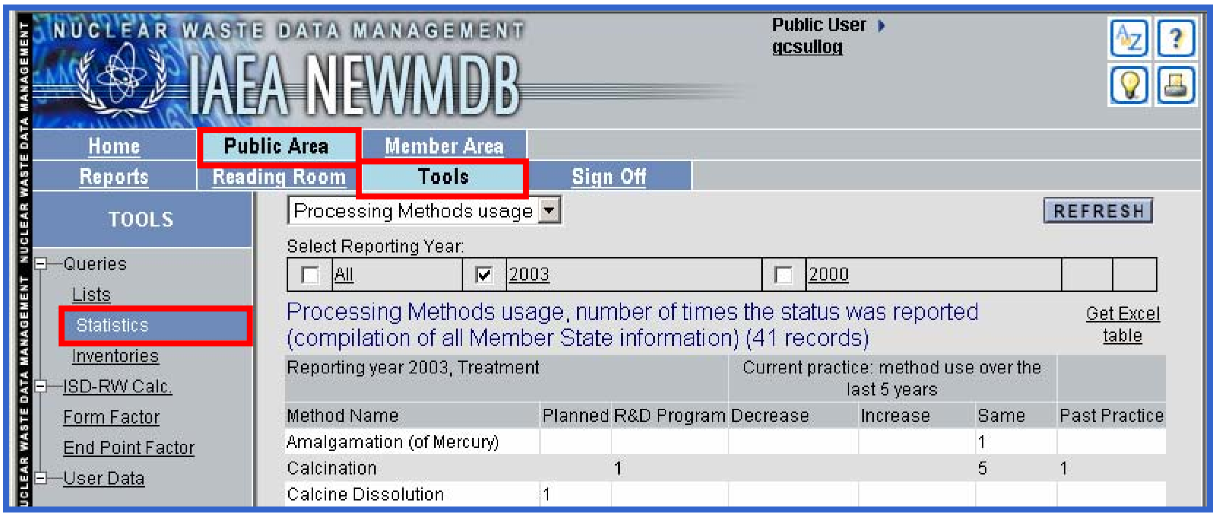

Figure 10: Example of a "Statistics" query report

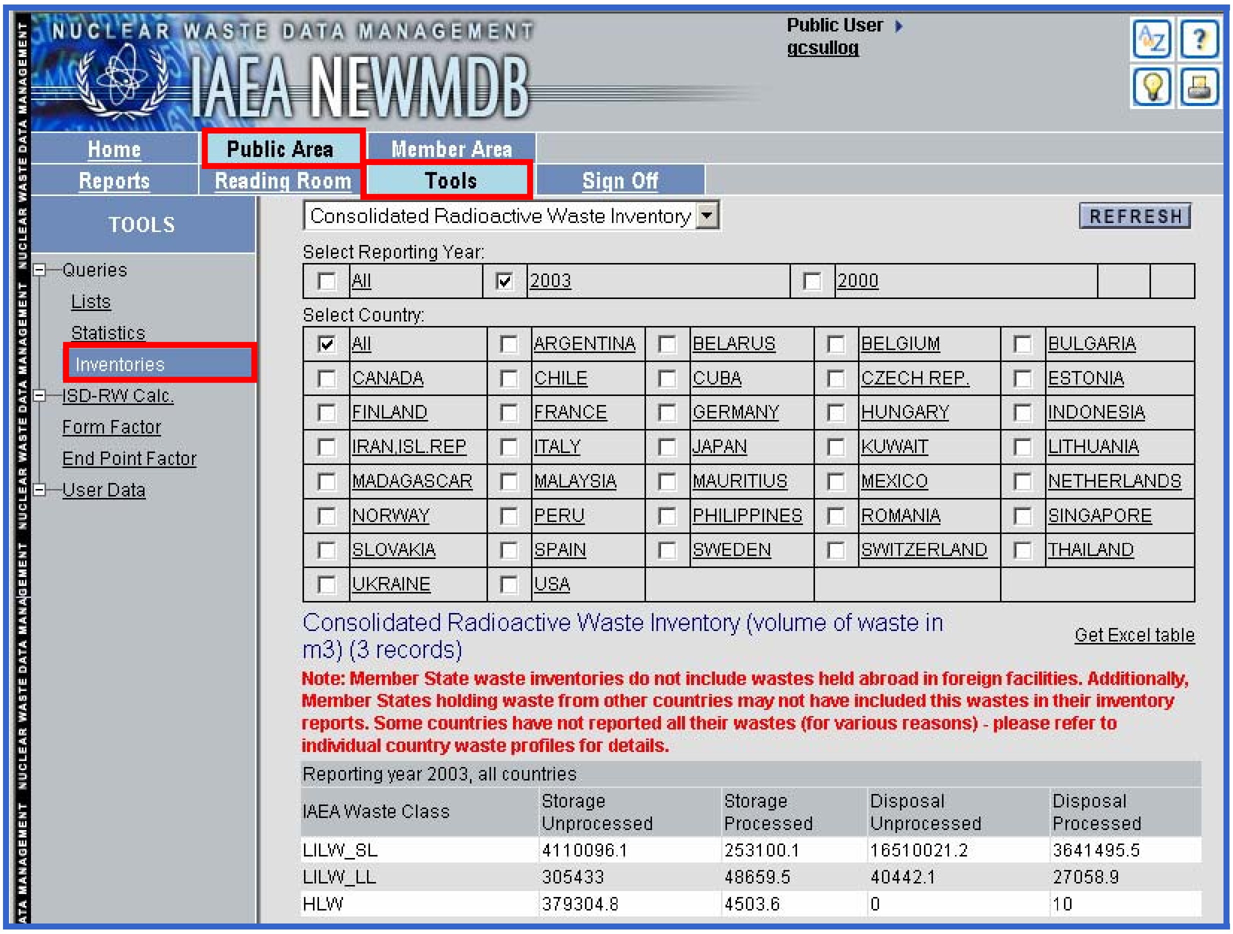

Figure 11: Example of an "Inventories" query report

The following figures provide an overview of the NEWMDB's "Reading Rooms" feature, including a description of subscribing/unsubscribing to/from reading room news.

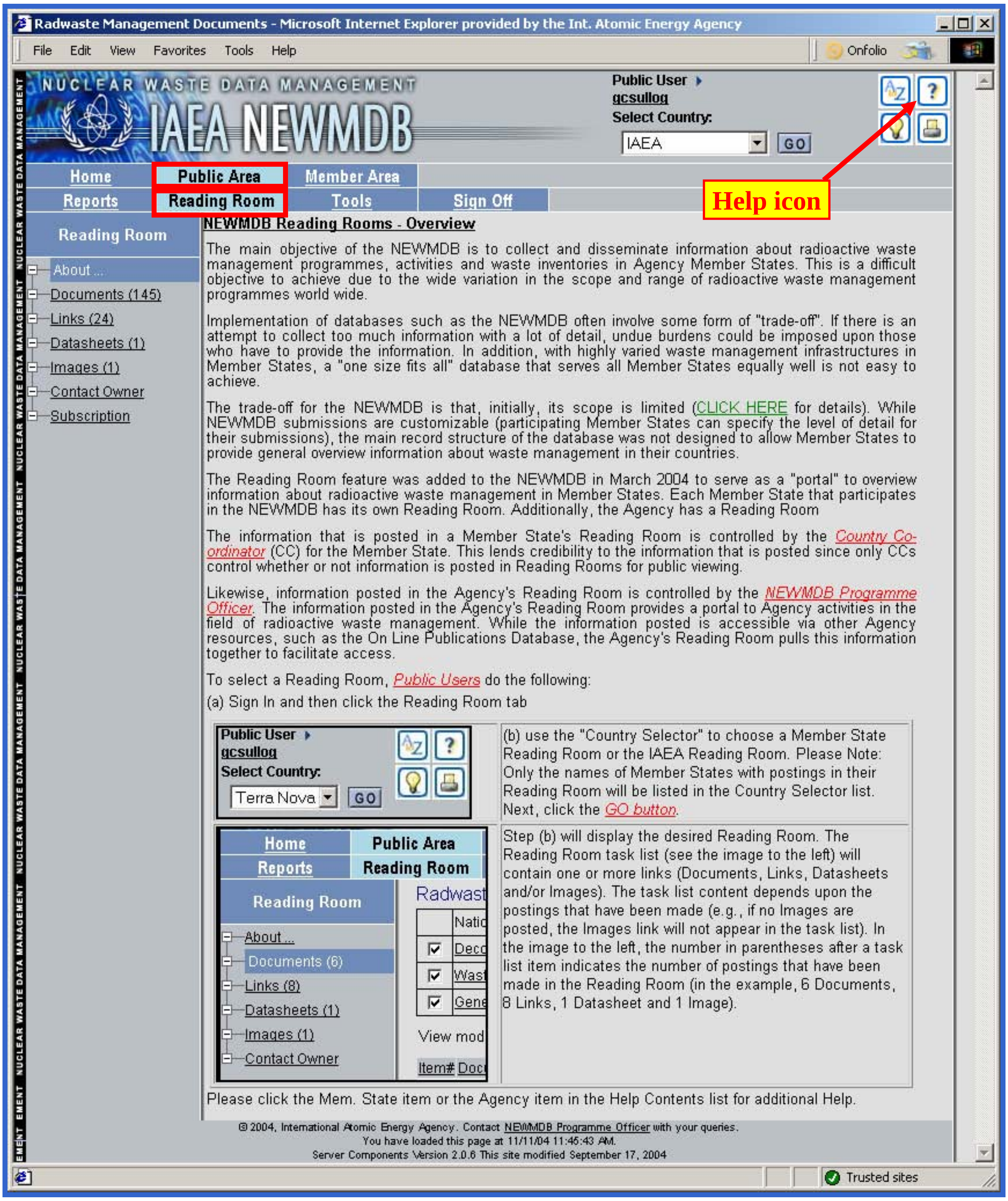

Figure 12: The Reading Room "About" screen

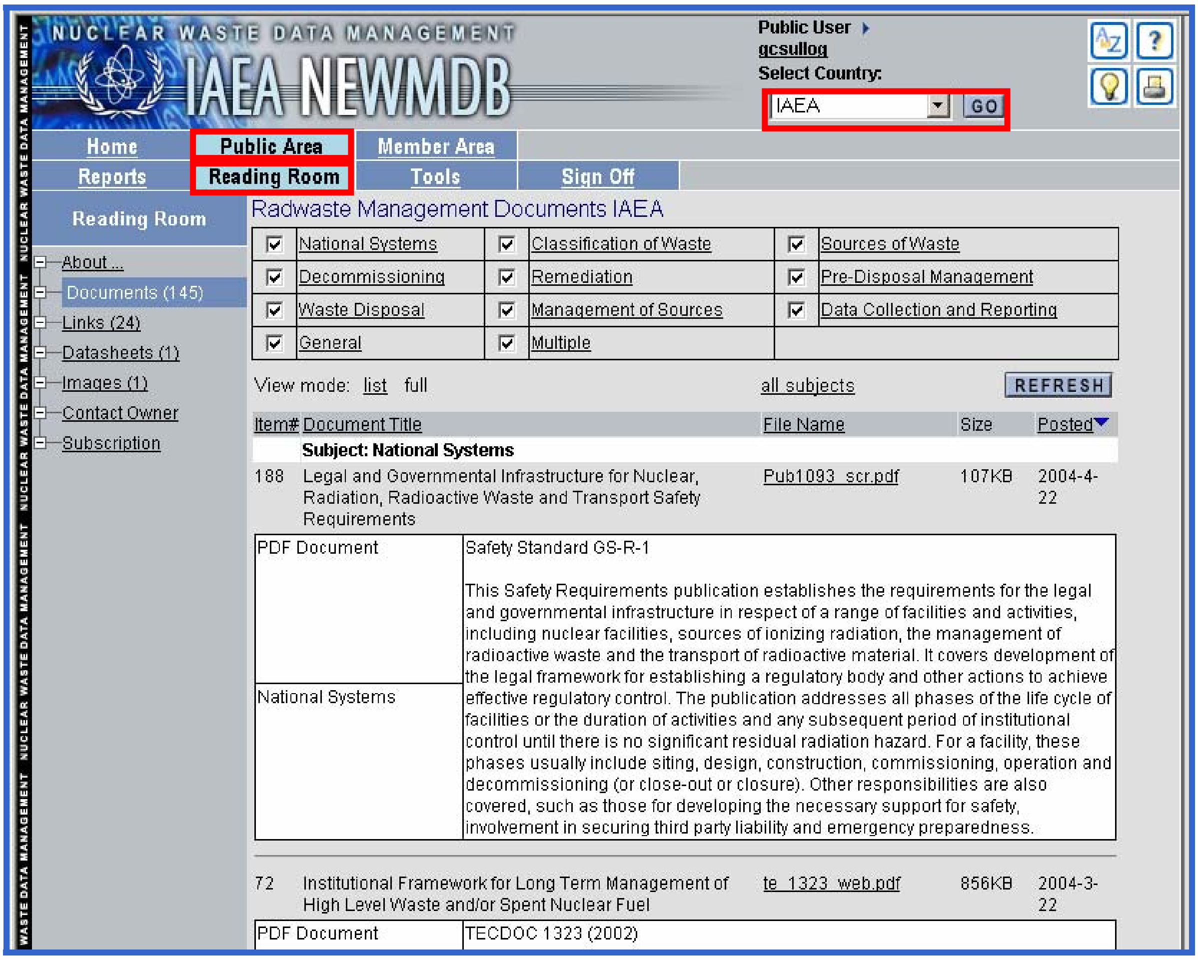

Figure 13: Reading Room example (IAEA)

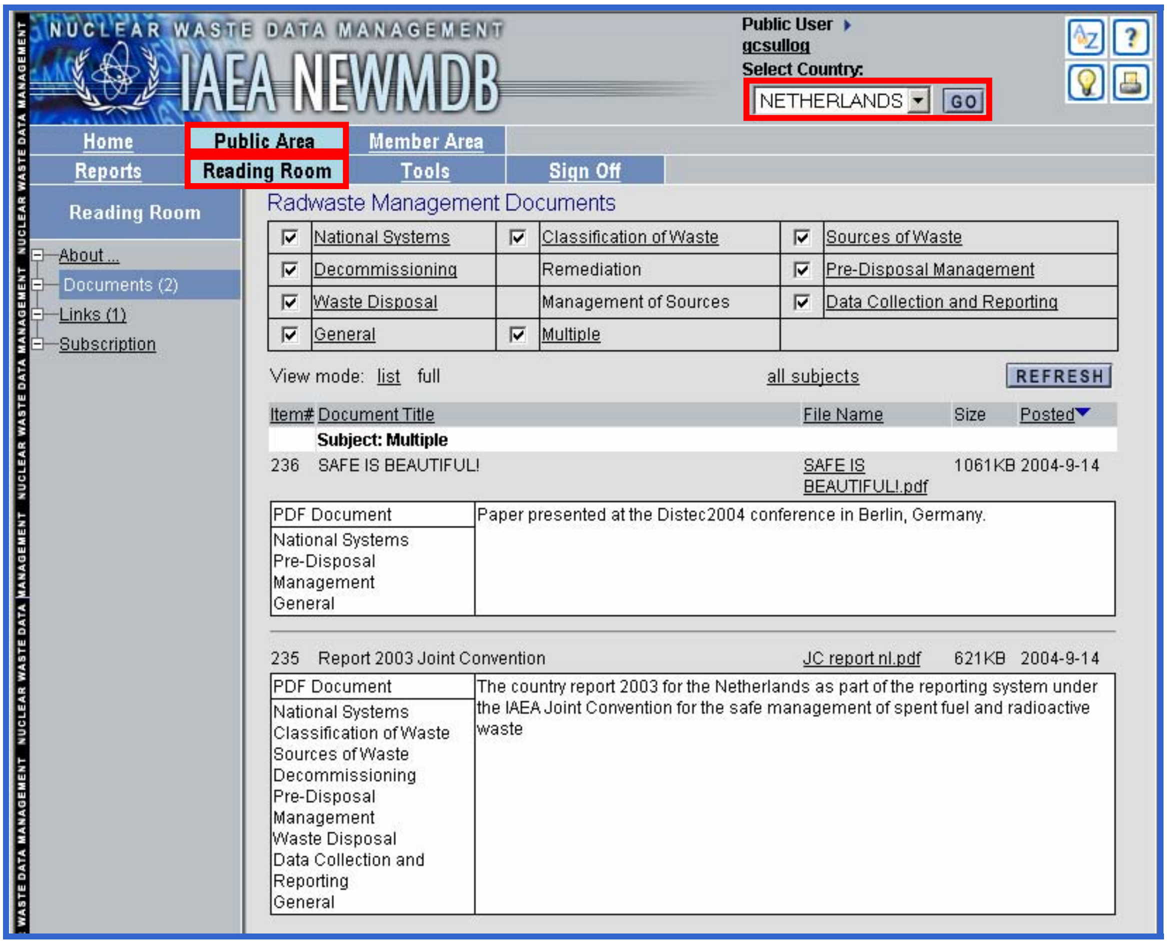

Figure 14: Reading Room example - Netherlands

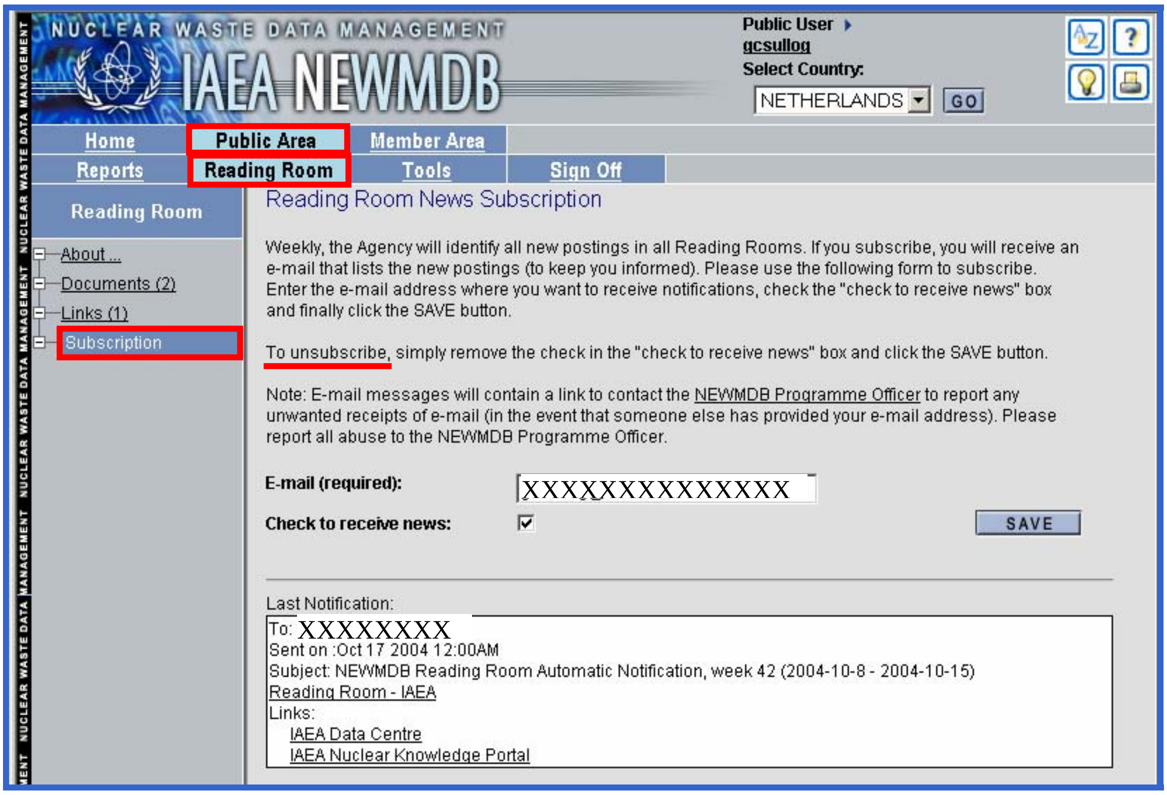

Figure 15: Setting your Reading Room news subscription status

Country Waste Profile Reports for Reporting Year 2006

This is the top level document for accessing individual Country Waste Profile reports from the report "Radioactive Waste Management Profiles No 9 – a compilation of data from the Net Enabled Waste Management Database", International Atomic Energy Agency report IAEA/WMDB/9 (2008). For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the NEWMDB Programme Officer via e-mail at the following address:

NEWMDB@IAEA.org

Revision History
the following lists revisions to the 9th Profiles Report

------------------------------ no revisions -----------------------------------

Country Waste Profile Report for
Argentina
Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-08 11:39:02

Waste Class Matrix(ces) Used/Defined

Country: Argentina (Argentine Republic) Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #106: Waste classification in Argentina

A waste classification matrix is not legislated in Argentina. The IAEA default matrix will be used just for reporting to the NEWMDB. Moreover, the IAEA matrix was used to supply the information for the WMDB.

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Mangement. First National Report - 2003 presents three categories for radioactive waste. The criteria to define and characterize radioactive waste in Argentina are related to the final disposal technological system proposed for each category.

Class B Waste (Low level Disposable Waste)
Class M (Intermediate Level) Disposable Waste
Class A (High Level and/or Long Lived) Disposable Waste

Attachment #1263: A table describing the radioactive waste classification presented in the First National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

File name: Classes.doc

File type: MS Office Document

Member State's Reference # 01

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Argentina (Argentine Republic) Reporting Year: 2006

Reporting Group: **RG1**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: This group will inform about the waste inventory located in the only authorized site to manage radwaste in Argentina.
The name of the place is Ezeiza Waste Management Area (AGE).

Site Name	Facility Name	Facilities Defined		
AGE	COMPACTOR	processing		
	DS		storage	
	IRWS		storage	
	M1		storage	
	TN		storage	
	CP			disposal
	LLLWT			disposal
	LLSWT			disposal

Reporting Group: **RG2**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: This group will inform about the radioactive waste stored in the two nuclear power plants in Argentina. CNA I and CNE.

Site Name	Facility Name	Facilities Defined		
CNA I	CEMENT	processing		
	COMPACTOR	processing		
	EVAPORATOR	processing		
	TR SYSTEM	processing		
	DRUMS		storage	
	FILTERS		storage	
	RESINS 1		storage	
	RESINS 2		storage	
CNE	COMPACTOR	processing		
	DRUMS		storage	
	FILTERS		storage	
	RESINS		storage	

Comment #9935: Reporting Group RG2

Nuclear Power plants are operated by Nucleoeléctrica Argentina S.A. (NASA).
The fuel used by both nuclear power plants is natural uranium and the coolant/moderator is heavy water.

Reporting Group RG1, Site Structure: AGE

Country: Argentina (Argentine Republic) Reporting Year: 2006

Full Name: EZEIZA WASTE MANAGEMENT AREA

License Holder(s) : PEDRO SOTO
e-mail: psoto@cae.cnea.gov.ar
Telephone: (54-11) 6779-8417
Fax: (54-11) 6779-8535

The following list the waste management facilities that are located at this site.

Facility: COMPACTOR

Description	This plant is used to compact low-level solid waste in 200 liter drums. A 16-ton hydraulic press is used to reduce the waste volume by a factor of 5.

Processing part of the "COMPACTOR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1973, Estimate

Facility: DS

Description	200 liters waste packages from nuclear power plants that couldn´t be disposed of in the LLSWT system have been stored in marine containers.

Storage part of the "DS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	513 drums have been stored in marine containers.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DS	mound	1998	Yes	No	No	No

Reporting Group RG1, Site Structure: AGE

Country: Argentina (Argentine Republic) Reporting Year: 2006

Facility: IRWS

Description	Infected Radioactive Waste Storage. It is a new facility licensed during 2004 to store 50-liter drums.

Storage part of the "IRWS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	The capacity of the storage is about 200 m3.				

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
IRWS	building	2004	No	No	No	No

Facility: M1

Description	This facility is used for storing Intermediate-level waste, long-lived low-level waste, and also spent/disused radiation sources that according to the operation license can not be disposed of in the disposal facilities.

Storage part of the "M1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			
List SRS?	Yes				
Capacity	The facility was licensed in 1999. It is 60m long, 20m wide and 10m high. The building includes a traveling crane with 3 ton main hook and 2 ton secondary hook and a controlled ventilation system.				

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
M1	building	2000	No	No	No	Yes

Reporting Group RG1, Site Structure: AGE

Country: Argentina (Argentine Republic) Reporting Year: 2006

Facility: TN

Description	The Reception and Handling Yard was conceived for reception, control and administration of wastes received or produced in its own area. The semi-covered yard comprises an 800m2 reinforced concrete platform fenced on two sides by brick walls.

Storage part of the "TN" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	No			
List SRS?	Yes				

Capacity	The yard use was authorized in 1994. At this time, it is also being used as a temporary storage.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TN	concrete pad	1989	No	No	No	Yes

Facility: CP

Description	Concrete Pits. This facility is considered an alternative for the management of low-impact solid waste that according to its activity or geometry can not be disposed of in the existing trenches. Historic wastes have been disposed of in them.

Disposal part of the "CP" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	borehole		
Facility is modular			
Capacity - existing (m3)	240	Capacity -planned (m3)	240
Depth (m)	10		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
design	Yes	1968	1970
construction	Yes	1968	1971
commissioning	Yes	1968	1972
operation		1969	2001

Comment #7253: CP Comments

The system comprises two underground pits (4m diameter and 10m deep) with 30cm thick reinforced concrete side walls and bottom. Wastes disposed of in this system are usually metal parts from contaminated areas. Periodically, concrete is poured inside the pits in order to immobilize the contaminated materials and reduce the dose rate at the top.

The first pit was commissioned in 1972 and was operated untill 1995, while the second was in operation from 1999 to 2001, when the safety re-assessment of the complete AGE was commenced. The first pit operated without an Operating License and therefore the wastes in it are considered historic.

In addition, there are another two previous and smaller pits with historic wastes.

Facility: LLLWT

Description	There are three semi-containment trenches for low-activity liquid wastes. This facility has been designed for very low-level liquid waste that were not able to be directly discharged as effluents.

Disposal part of the "LLLWT" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is modular			
Capacity - existing (m3)	1200	Capacity -planned (m3)	1200
Depth (m)	3		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
design	Yes	1968	1970
construction	Yes	1968	1971
commissioning	Yes	1971	1971
operation		1971	2001

Comment #7251: LLLWT Comments

The system comprises three ionic exchange beds formed by selected soil mixtures with a larger proportion of calcareous silts and sand added to improve the process efficiency. These soils allow radionuclides with very short half-life periods to decay to non significant levels during their stay in the bed mass. The operating capacity for each one of these systems is approximately 2 m3/day. A network of phreatometers allows periodical groundwater control. The systems were commissioned in 1971. Two units ended operations in 1986, while the third unit was functioning until the year 2001 when the safety re-assessment of the complete AGE was commenced. In view of the fact that the Operating license of these systems was not granted by ARN until 1995, all liquid wastes disposed of before 1995 are considered historic.

Facility: LLSWT

Description	Trench Nº1 (700m3) was closed in 1988 with some historic waste in it.Trench Nº2 (1120m3) started operation in 1989. It has been licensed to dispose of 200 liter drums with compacted solid waste, cemented liquid waste, and conditioned SRS.

Disposal part of the "LLSWT" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	trench(es)		
Facility is modular			
Capacity - existing (m3)	1820	Capacity -planned (m3)	1820
Depth (m)	1.2		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
design		1974	1988
construction		1974	1988
commissioning		1974	1988
operation		1975	
Additional Activities and Events			
EVENT: operation suspended		2001	

Comment #7183: LLSWT Comments

The first trench was built in natural soil without any type of engineered improvement.

The second trench was commissioned in 1989 and only one third of the total capacity is covered. This second trench was operated without license until 1995, and for that reason all the wastes disposed until that date are considered historic.

This second trench was built in a selected calcareous-silty soil compacted to 98% of its maximum theoretical value, supporting a leveled broken stone bed with slopes toward both sides and 30cm thick concrete perimeter retaining walls. The rain water drainage system prevents water accumulation around drum bases. Coverage of the first trench’s last section as well as the second trench’s first third were made using the same engineering concept. The operation of trench Nº 2 has been formally suspended since 2001 after three years without having located drums in it. Currently, a facility safety re-assessment is being performed.

Reporting Group RG1, Site Data: AGE

Country: Argentina (Argentine Republic) Reporting Year: 2006

Full Name: EZEIZA WASTE MANAGEMENT AREA

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	128.8	11	26	0	63	0	0	0	Yes
LILW-SL	Storage	Yes	264	47	26	0	27	0	0	0	Yes
LILW-SL	Disposal	Yes	2754.7	68	1	0	31	0	0	0	Yes
LILW-LL	Storage	No	4.3	0	28	0	72	0	0	0	Yes
LILW-LL	Storage	Yes	23	0	43	0	57	0	0	0	Yes
LILW-LL	Disposal	Yes	169.6	2	46	13	39	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Radionuclide Separation			same	
Solvent Extraction	Yes			

Comment #7371: Radionuclide Separation

During 2005 an ion exchange process has been implemented in the Mo 99 production plant to separate cesium from the intermediate level waste stream. The cesium will be eluted from the column to produce cesium source for braquitherapy.

Comment #7372: Solvent extraction

A solvent extraction process was developed to decontaminate lubricant oils used in fuel elements fabrication. This process will be implemented in rutinary operation in the near future.

Comment #14743: R&D: Waste Treatment

The chemical treatment of spent ion exchange resins by electromical methods is being studiied

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	Yes			Yes
Containerization			same	
Encapsulation			suspended	
Solidification		Yes		

Comment #7373: Encapsulation

During 2001 to 2003 radium medical sources were encapsulated for long term storage.

Comment #14742: Waste conditioning

The study of conditioning of LILRW in composite matrices and ceramic compounds is going to start during 2008

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Cm-244	1			Yes	No	0	3.41E-03	2006.12 (estimate)
	3.41E-03							

Reporting Group RG1, Site Data: AGE

Country: Argentina (Argentine Republic) Reporting Year: 2006

Ir-192	117 1.14E+02	125 1.24E+03		Yes	No	4	1.35E+03	2006.12 (estimate)
Cf-252	1 2.71E+00			No	Yes	4	2.71E+00	2006.12 (estimate)
Cf-252	2 5.46E-07			No	Yes	5	5.46E-07	2006.12 (estimate)
Co-60		4 3.63E+02		No	Yes	3	3.63E+02	2006.12 (estimate)
Sr-90		3 2.96E+02		No	Yes	4	2.96E+02	2006.12 (estimate)
Sr-90	95 4.77E+01	3 2.21E+01		No	Yes	5	6.98E+01	2006.12 (estimate)
Sr-90		1 1.37E+03		No	Yes	3	1.37E+03	2006.12 (estimate)
Po-210	39 5.19E-06			No	Yes	5	5.19E-06	2006.12 (estimate)
Co-60		4 1.28E+05	7 1.00E+06	No	Yes	1	1.13E+06	2006.12 (estimate)
Cs-137		6 1.38E+05		No	Yes	2	1.38E+05	2006.12 (estimate)
Cs-137		7 1.22E+03		No	Yes	3	1.22E+03	2006.12 (estimate)
Cs-137		2 8.51E+02		Yes	No	3	8.51E+02	2006.12 (estimate)
Co-60		105 3.34E+05		No	Yes	2	3.34E+05	2006.12 (estimate)
Pm-147	18 4.65E+00			No	Yes	5	4.65E+00	2006.12 (estimate)
Pm-147	4 1.29E+00			Yes	No	5	1.29E+00	2006.12 (estimate)
Kr-85	19 3.33E+01	28 3.70E+02		No	Yes	5	4.03E+02	2006.12 (estimate)
Ir-192	51 2.30E-02			No	Yes	5	2.30E-02	2006.12 (estimate)
H-3	18 2.88E+01	2 2.08E+04		No	Yes	5	2.08E+04	2006.12 (estimate)
Fe-55	16 5.39E+00			No	Yes	5	5.39E+00	2006.12 (estimate)
Cs-137	102 3.58E+02	130 3.59E+03		No	Yes	4	3.95E+03	2006.12 (estimate)
Cs-137	171 4.85E+01			No	Yes	5	4.85E+01	2006.12 (estimate)
Cs-137	64 1.22E+02	45 1.09E+03		Yes	No	4	1.21E+03	2006.12 (estimate)
Cs-137	40 1.19E+01			Yes	No	5	1.19E+01	2006.12 (estimate)
Co-60	19 1.81E+01	4 5.84E+01		No	Yes	4	7.65E+01	2006.12 (estimate)
Co-60	171 7.36E+00			No	Yes	5	7.36E+00	2006.12 (estimate)
Co-60	43 2.92E-01			Yes	No	5	2.92E-01	2006.12 (estimate)

Cf-252	1			Yes	No	5	2.08E-02	2006.12 (estimate)
	2.08E-02							
Cd-109	5			No	Yes	5	9.69E-03	2006.12 (estimate)
	9.69E-03							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226	46		No	Yes	5	2.22E+00	2006.12 (estimate)
	2.22E+00						
Ra-226	97		No	Yes	4	5.45E+01	2005.12 (estimate)
	5.45E+01						
Ra-226	84		Yes	No	5	8.18E+00	2005.12 (estimate)
	8.18E+00						
Ra-226	731		Yes	No	4	2.33E+02	2005.12 (estimate)
	2.33E+02						
Pu-238		20	No	Yes	3	1.46E+03	2005.12 (estimate)
		1.46E+03					
Pu-238	1		No	Yes	4	8.76E-01	2005.12 (estimate)
	8.76E-01						
Ni-63	60	12	No	Yes	5	8.41E+01	2006.12 (estimate)
	2.18E+01	6.23E+01					
Am-241	1666		No	Yes	5	2.05E+00	2006.12 (estimate)
	2.05E+00						
Am-241	58	65	No	Yes	4	1.13E+03	2005.12 (estimate)
	9.78E+01	1.03E+03					
Am-241		17	No	Yes	3	2.61E+03	2006.12 (estimate)
		2.61E+03					
Am-241		2	No	Yes	2	2.46E+03	2005.12 (estimate)
		2.46E+03					
Am-241	22		Yes	No	5	3.89E-01	2005.12 (estimate)
	3.89E-01						
Am-241		7	Yes	No	4	1.30E+02	2005.12 (estimate)
		1.30E+02					
Am-241		3	Yes	No	3	9.38E+02	2005.12 (estimate)
		9.38E+02					

Reporting Group RG2, Site Structure: CNA I

Country: Argentina (Argentine Republic) Reporting Year: 2006

Full Name: CENTRAL NUCLEAR ATUCHA I
ATUCHA I NUCLEAR POWER PLANT

License Holder(s) : MANUEL GUALA
Until September 2005

OSVALDO PENNACCHIETTI
Since October 2005

Comment #9926: CNA I Nuclear Power Plant

Atucha I Nuclear power plant (PHWR type) has an installed power capacity of 357 MW(e).

The following list the waste management facilities that are located at this site.

Facility: CEMENT

Description	The purpose of this facility is to immobilize by cementation the evaporator concentrate, the tank cleaning sludge, liquid wastes from decontamination, and non-compactable and structural solid wastes.

Processing part of the "CEMENT" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1992, Estimate

Comment #9937: Processing Facility CEMENT

The facility is designed only for low-level wastes. It includes storage and feeding tanks, having a homogenization and sampling system of liquid and sludge waste to be cemented. The immobilization system comprises a reusable blade vertical mixer that allows liquid waste in-drum cementation.

Facility: COMPACTOR

Description	The Compaction System comprises a 16 t hydraulic press, installed in a bay located in the controlled zone inside the reactor building. Compactable solid wastes are collected in plastic bags and compacted in 200 liter drums.

Processing part of the "COMPACTOR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1974

Facility: EVAPORATOR

Description	A Decanting/Separator System is used to separate residual waters from solids suspended in the liquid. The system makes the necessary controls to convey the residual waters to the discharge system or to the concentration by evaporation system.

Processing part of the "EVAPORATOR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1974

Comment #9936: Processing Facility EVAPORATOR

Purified water is collected in control tanks where its activity concentration is checked. If the value is lower than the limits set forth in the Operating license, the liquids are eliminated as controlled and scheduled radioactive discharges into the Paraná de las Palmas River. If the value is higher than the permitted limit, the water is returned to the collecting tanks for evaporation treatment.

Facility: TR SYSTEM

Description	The function of the System (TR) is to collect all residual waters produced in the controlled area. The system includes four 10 m3 tanks located in the reactor building.

Processing part of the "TR SYSTEM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1974

Facility: DRUMS

Description	This facility located inside Atucha I nuclear power plant is used to store 200 liters drums with treated and conditioned solid and liquid low level radioactive waste.

Storage part of the "DRUMS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DRUMS	building	0	No	No	No	No

Comment #9932: Storage Facility DRUMS

The following waste types are stored in this facility:

Concentrates and sludge from the cleanup of tanks are immobilized in cement matrices and conditioned in 200-liter drums.

The treatment of compactable solid radioactive waste generated in the operation and maintenance activities, consists of reducing the waste volume by compressing it into 200-liter drums.

Non-compactable solid waste that are immobilized in cement matrixes and conditioned in 200-liter drums.

Facility: FILTERS

Description	It is an underground storage used to store spent mechanical filters from the primary circuit of the reactor.

Storage part of the "FILTERS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	There are 8 pits of 3 m3 each one.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
FILTERS	pit	1974	No	No	Yes	No

Reporting Group RG2, Site Structure: CNA I

Country: Argentina (Argentine Republic) Reporting Year: 2006

Facility: RESINS 1

Description	Spent ion exchange resin beds from the primary system of water cooling purification are stored in tanks inside Atucha I nuclear power plant

Storage part of the "RESINS 1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	There are four tanks, two of 15 m3 and two of 9 m3.				

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RESINS 1	tank (stainless steel)	1974	No	No	Yes	No

Facility: RESINS 2

Description	This facility has been used to free the tanks with spent ion exhange resin beds.

Storage part of the "RESINS 2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	This facility has a capacity of 46 m3				

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RESINS 2	well	1974	No	No	No	No

Reporting Group RG2, Site Structure: CNE

Country: Argentina (Argentine Republic) Reporting Year: 2006

Full Name: CENTRAL NUCLEAR EMBALSE
EMBALSE NUCLEAR POWER PLANT

License Holder(s) : RICARDO TIBALDI
Until 10/11/06

RICARDO SAINZ
Since 10/11/2006

Comment #9931: CNE Nuclear Power Plant

Embalse Nuclear Power Plant (Candu type reactor) has an installed power capacity of 648 MW(e).

The following list the waste management facilities that are located at this site.

Facility: COMPACTOR

Description	There is an area in the reactor building controlled zone housing with a 16-ton capacity hydraulic press.

Processing part of the "COMPACTOR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1984

Facility: DRUMS

Description	This facility located inside Embalse nuclear power plant is used to store 200 liters drums.

Storage part of the "DRUMS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DRUMS	building	1995	No	No	No	No

Comment #9933: Storage Facility DRUMS

Treatment and conditioning practices, such as compacting of solid compactable wastes and immobilization in cement matrixes of non-compactable solids are performed at Embalse Nuclear Power Plant.

Reporting Group RG2, Site Structure: CNE

Country: Argentina (Argentine Republic) Reporting Year: 2006

Facility: FILTERS

Description	Storage for the spent filters generated in the nuclear power plant along the whole life cycle.

Storage part of the "FILTERS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			

List SRS?	No
Capacity	The storage facility for purification filters is located in an approximately 50 m x 50 m elevated area located some 250 meters from the service building.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
FILTERS	building	1984	No	No	No	No

Comment #9938: Storage Facility FILTERS

Underground containment structures include concrete cubicles and cylindrical pits with steel lined concrete walls. The drainage characteristics of the elevated facility are such that the level of the lowest points of the storage cubicles are above the estimated highest level of the groundwater table.

Concrete storage cubicles are divided into separate cells where low-level wastes are stored. Cylindrical vertical cavities (i.e., boreholes) are used to store intermediate-level waste purification mechanical filters.

The original design comprises a concrete cubicle made of five aligned cells with a depth of 3 m and a cross section of 3 m x 3 m, and five concrete cylindrical pits with a diameter of 1 m and a depth of 4.4 m. The capacity is adequate to contain all solid radioactive wastes produced during the power plant useful life. Nevertheless, the facility allows expansion of the concrete containment structures to store all solid radioactive wastes that could be additionally generated.

Facility: RESINS

Description	Spent ion exchange resin beds are stored in tanks.

Storage part of the "RESINS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	There are two tanks of 260 m3 each one.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RESINS	tank (concrete)	1984	No	No	Yes	No

Comment #9934: Storage Facility RESINS

At CNE, liquid radioactive waste originating in the operation and maintenance activities are treated by ion exchange resin beds, with subsequent discharge into the environment of the treated effluent.

REGULATORS

Country: Argentina (Argentine Republic) Reporting Year: 2006

Name	ARN
Full Name	Autoridad Regulatoria Nuclear. (Nuclear Regulatory Authority).
Division	
City or Town	Buenos Aires

REGULATIONS / LAWS

Country: Argentina (Argentine Republic) Reporting Year: 2006

Name	LNAN	
Title or Name	LEY NACIONAL DE ACTIVIDAD NUCLEAR (National Law of Nuclear Activiy)	
Reference Number	24804	
Date Promulgated or Proclaimed	1997-04-23	Law

Comment #301: National Law of Nuclear Activity

Act Nª 24804 establishes that the Nuclear Regulatory Authority (ARN) is in charge of nuclear regulations and control concerning radiological and nuclear safety, safeguards and physical protection, giving in addition, advice to the Executive Power on subjects of its competence. It appoints the National Comission of Atomic Energy - independent from the Regulatory Body - as the responsible organization for radioactive waste management in the country.

Attachment #1260: This document contains the text of the National Law of Nuclear Activity (Spanish version) for Argentina.

File name: LNAN.doc

File type: MS Office Document

Member State's Reference # LNAN

Name	RGRR	
Title or Name	REGIMEN DE GESTION DE RESIDUOS RADIACTIVOS (Radioactive Waste Management Regimen).	
Reference Number	25018	
Date Promulgated or Proclaimed	1998-10-19	Law

Comment #302: National Law of Radioactive Waste Management

Act Nº 25018 creates the National Radioactive Waste Management Programme, belonging to the Atomic Energy Commission. This programme deals with the treatment, conditioning, storage, transport and disposal of low, medium and high level radioactive waste, as well as the development and implementation of all mechanisms required to attain their objectives.

Attachment #1261: This document contains the text of the National Law of Radioactive Waste Management Regimen for Argentina (Spanish Version) .

File name: RGRR.doc

File type: MS Office Document

Member State's Reference # RGRR

Name	AR 10.12.1	
Title or Name	Gestion de Residuos Radiactivos. (Radioactive Waste Management)	
Reference Number	ARN 29/99	
Date Promulgated or Proclaimed	1999-12-01	Regulation

Attachment #1259: The objective of this document is to establish general requirements for the management of radioactive wastes, taking into account the protection of human health and the environment for both present and future generations.

File name: 10-12-1R0.pdf

File type: PDF Document

Member State's Reference # 10-12-1R0

Policies

Country: Argentina (Argentine Republic) | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Attachment #1262: The framework of the Radioactive Waste Management National Program was established by the Atomic Energy Commission on 2003-02-27, according to the National Law # 25018.
The spanish version of the resolution can be seen in the attachment.

File name: Estructura Orgánica del PROGRAMA NACIONAL DE GESTION DE.doc

File type: MS Office Document

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Comment #7269: Strategic Plan

According to the specific Law 25018, National Atomic Energy Commission developed a Radioactive Waste Management Strategic Plan, which was submitted to the approval of the National Congress.
The Plan recommends the course of action for the safe management of low, intermediate and high level radioactive wastes produced in the performance of practices and those generated from uranium millings, decontamination and decommissioning of nuclear and radioactive facilities. The Plan also evaluates the necessary funds to fulfill with the programmed actions.

Requirements (Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Partially
12	implemented formal mechanisms for disseminating information to the public and for public consultation	No

Responsibilities (Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete

17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Comment #7270: Responsabilities

The responsabilities of waste generators and operators of waste management facilities have been stablished by the Nuclear Regulatory Authority on AR.10.12.1. regulation.

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

Licensing	(Yes - All;Yes - Some;No)

Policies

Country: Argentina (Argentine Republic) **Disposal Facilities** Reporting Year: 2006

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	Yes - Some
41	Environmental Impact Statement (EIS)	Yes - Some
42	Performance Assessment (PA)	Yes - Some
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	No
54	leachate treatment systems	No
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes

Policies

Country: Argentina (Argentine Republic) **Spent SRS** Reporting Year: 2006

89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Comment #308: Radioactive waste import

National Constitution or Fundamental Law forbids to import radioactive wastes.
National Law of dangerous wastes prohibits to import radioactive wastes and remits to the specific legislation

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some

Comment #7258: Decommission Comments

Only major facilities require a timeframe for decommissioning. Considering major facilities those that manage important inventory of radioactive material.

Country Waste Profile Report for

Austria

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-04-01 16:23:45

Waste Class Matrix(ces) Used/Defined

Country: Austria, Republic of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #12228: Waste Matrix IAEA Def.

Effective from 1st January 2004, Nuclear Engineering Seibersdorf GmbH (NES) adopted the Commission Recommendation of 15 September 1999 on a classification system for solid radioactive waste 1999/669/EC, Euratom. This radioactive waste classification system is based on the IAEA classification scheme and has been accepted by the regulatory body; it is not defined in the present legislation (Chapter B5 of the JC Report 2005).

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Austria, Republic of

Reporting Year: 2006

Reporting Group: **NES**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description:

Attachment #1378: The information for this submission was obtained from the Second National Report to the Joint Convention, 2005

File name: 2020_austrian_jcreport2006.pdf

File type: PDF Document

Member State's Reference # 2006

Reporting Group NES, Site Data: NES

Country: Austria, Republic of — Reporting Year: 2006

Full Name: Nuclear Engineering Seibersdorf GmbH

Inventory Reporting Date: December 2006 — Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage Interim	Yes	1981	0	0	0	0	0	0	100	No

Comment #12243: Waste Storage facilities/Class LILW-SL/Site NES

The major amount of solid waste is combustible waste from the use of radioactive material in medicine. Liquid waste originates mainly from the NES incinerator operations (wet scrubber) and, in the past, from research reactor operations. Only a small fraction of liquid waste originates from medical facilities and universities.
160 tons of LILW resulting from decommissioning the ASTRA research reactor.

Class	Location Facility	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-LL	Storage Interim	Yes	2	0	0	0	0	0	0	100	No

Comment #12244: Waste Storage facilities/Class LILW-LL/Site NES

13 gr of radium are stored (conditioned).

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Filtration			same	
Incineration			same	
Segregation/Sorting			same	
Super Compaction			same	

Comment #12242: Waste Treatment on Site NES

Annex L1 of the JC Report contains a brief description of all treatment and conditioning processes carried out at the Nuclear Engineering Seibersdorf GmbH (NES). The treatment methods over the last 5 years have been the same.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			decrease	
Grouting			increase	

REGULATORS

Country: Austria, Republic of Reporting Year: 2006

Name	FMAFEWM
Full Name	Federal Minister of Agriculture, Forestry, Environment and Water Management
Division	V/7 - Radiation Protection
City or Town	Vienna

Comment #12229: Regulator FMAFEWM

Due to the lack of major nuclear facilities in Austria and because of the federal structure there is no centralized regulatory authority in Austria. However, in the field of radioactive waste management, the main responsibilities for regulation, licensing and supervision are concentrated within the Federal Minister of Agriculture, Forestry, Environment and Water Management. It is the competent licensing and supervisory authority with respect to radiation protection for the construction and operation of all major nuclear facilities other than for medical use including radioactive waste management facilities. Other competent authorities are:
The Federal Minister of the Interior is the competent authority for supervision of nuclear facilities with regard to physical protection and in charge of transport safety measures with regard to the carriage of nuclear materials.
The Federal Minister of Economy and Labour is the competent authority for safeguards.
The Federal Minister of Justice is responsible for all legal matters relating to the Nuclear Liability Act.
The Heads of Governments of the Federal Provinces issue licenses according to the Environmental Impact Assessment Act.
The locally competent Regional or District Authorities (all in all 99 districts in Austria) are the common radiation protection authorities and responsible for licensing and supervision according to the Radiation Protection Act. They issue i.e. licenses for the handling of radioactive material and can oblige the licensee to deliver their waste to Nuclear Engineering Seibersdorf GmbH (NES). Each licensee is inspected on a regular basis by the competent authority. As a part of this inspection process the records about the balance of radioactive material and of radioactive waste come under scrutiny.
The Mayors of the Local Communities issue common building licenses.

REGULATIONS / LAWS

Country: Austria, Republic of Reporting Year: 2006

Name	No-Nuclear	
Title or Name	Constitutional Law on a Non-Nuclear Austria	
Reference Number	149/1999	
Date Promulgated or Proclaimed	1999-08-13	Law

Name	RadProAct	
Title or Name	Radiation Protection Act	
Reference Number	BGBl. I Nr. 13/2006	
Date Promulgated or Proclaimed	2006-01-20	Law

Comment #12230: Regulation RadProAct

Radiation Protection Act was first promulgated in 1969 (Federal Law Gazette no. 227/1969). Then it was amended by the Radiation Protection EU-Adaptation-Act 2002 (Federal Law Gazette I no. 146/2002) and by the Radiation Protection EU-Adaptation-Act 2004 (Federal Law Gazette I no. 137/2004).

Name	Shipments	
Title or Name	Ordinance on the Supervision and Control of Shipments of Radioactive Waste into, out of and through Austria	
Reference Number	44/1997	
Date Promulgated or Proclaimed	1997-03-01	Law

Comment #12231: Regulation Shipments

This Ordinance implements Council Directive 92/3/EURATOM of 3 February 1992 on the Supervision and Control of Shipments of Radioactive Waste into, out of and through the Community".

Name	MedicalOrd	
Title or Name	Medical Radiation Protection Ordinance	
Reference Number	409/2004	
Date Promulgated or Proclaimed	2005-01-01	Law

Name	AdmProced	
Title or Name	General Administrative Procedures Act	
Reference Number	BGBl. I Nr. 5/2008	
Date Promulgated or Proclaimed	2006-12-12	Law

REGULATIONS / LAWS

Country: Austria, Republic of Reporting Year: 2006

Name	170/1998	
Title or Name	Act on Liability for Damage Caused by Radioactivity	
Reference Number	170/1998	
Date Promulgated or Proclaimed	1999-01-01	Law

Name	Non-Prolif	
Title or Name	Nuclear Non-Proliferation Act	
Reference Number	BGBl. I Nr. 2/2008	
Date Promulgated or Proclaimed	2006-12-12	Law

Name	AdmDecis	
Title or Name	Act on the Enforcement of Administration Decisions	
Reference Number	53/1991	
Date Promulgated or Proclaimed	1991-01-01	Law

Name	EIA	
Title or Name	Environmental Impact Assessment Act 2000	
Reference Number	BGBl. I Nr. 2/2008	
Date Promulgated or Proclaimed	2006-12-12	Law

Name	EnvManag	
Title or Name	Environmental Management Act	
Reference Number	96/2001, as amended by I no. 99/2004	
Date Promulgated or Proclaimed	2004-08-03	Law

REGULATIONS / LAWS

Country: Austria, Republic of

Reporting Year: 2006

Name	Transport	
Title or Name	Act on the Transport of Hazardous Goods	
Reference Number	BGBl. I Nr.63/2007	
Date Promulgated or Proclaimed	2006-12-12	Law

Name	InlanNavi	
Title or Name	Inland Navigation Ordinance	
Reference Number	295/1997	
Date Promulgated or Proclaimed	1997-01-01	Law

Name	InlandAct	
Title or Name	Inland Navigation Act	
Reference Number	62/1997	
Date Promulgated or Proclaimed	1997-01-01	Law

Name	Inspection	
Title or Name	Labour Inspection Act	
Reference Number	BGBl. I Nr. 159/2001	
Date Promulgated or Proclaimed	1993-04-01	Law

Name	RadProtOrd	
Title or Name	General Radiation Protection Ordinance	
Reference Number	191/2006	
Date Promulgated or Proclaimed	2006-06-01	Law

MILESTONES

Country: Austria, Republic of

Reporting Year: 2006

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
Exemption and clearance levels are laid down in the new Radiation Protection Ordinance which was put into force June 1st, 2006			

Country Waste Profile Report for

Belarus

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-03-04 08:40:26

Waste Class Matrix(ces) Used/Defined

Country: Belarus, Republic of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #98: Reason for use of IAEA Def. Class

The IAEA classification was recognized as the most appropriate for reporting to the NEWMBD from the EKORES site in connection with the below stated motives.

Due to a number of objective and economical reasons management and regulation of radioactive waste in Belarus, except for “Chernobyl waste”, has been so far performed in accordance with the regulations of the former USSR:
- Basic Sanitary rules for working with radioactive substances and other sources of ionizing radiation (OSP - 72/87);
- Basic sanitary rules for the Management of Radioactive Wastes (SPORO -85).
The last document embodies a classification for radioactive waste which is based:
- on dose rate (when measuring in 10 cm from surface) for solid waste and
- on concentration activity (Bq/l) for liquid waste.

The classification has not found an application in Belarus, where all generated wastes are disposed of at the same facility (“Ekores”) in accordance with the acceptance criteria developed for this facility. At the same time the IAEA definitions have been widely used in practice of radioactive waste management despite they have not been adopted officially.

The Draft Strategy for the radioactive waste management in Belarus suggests for consideration a new national classification system, which has been developed in accordance with the recommendation of the IAEA TECDOC-1067 “Organization and implementation of national regulatory infrastructure governing protection against ionizing radiation and the safety of radiation sources, 1999”. The proposed waste classes are quite the same as those proposed in the IAEA Safety Guide 111-G-1.1

Waste Class Matrix(ces) Used/Defined

Country: Belarus, Republic of Reporting Year: 2006

Waste Class Matrix: ChernDW

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
DWT	100	0	0
DWI	100	0	0

Description: DWT include low level waste resulting from clean up activity in the territory affected by the Chernobyl Accident
DWI include low level waste resulting from decontamination of industrial (ventilation) equipment at Gomel enterprises.

Comment #99: Origin of CHERW class of waste

As a result of the Chernobyl Accident a total of 46 450 km2 (23 % of the country) of Belarus territory was subjected to radioactive contamination with Cs137 content in soil over 37 kBq/m2. Decontamination and remediation activities in the affected areas just after the accident resulted in thousands of tons of low-level and very low level waste. Currently several tens of tons of such waste are formed annually in the course of clean-up activities in socially important locations and from decontamination of industrial equipment in the affected territory. The levels of radioactivity in part of the wastes are lower than those within IAEA LLW class, and are often in a range of only two orders of magnitude. However, the amounts of the waste are enormous and resulting chronic exposure can be a factor for a great number of people.

The grouping of such waste under a separate category (ChernDW) has been caused by its peculiarities and special requirements needed for their management, quite different from those for existing waste.

The special regulation in force ‘Provisional sanitary rules for the management of decontamination waste of the Chernobyl origin’ (SPOOD-98) define this class of waste as substances which are formed as a result of work to eliminate the consequences of the Chernobyl accident with a view to bring the state of environment in industrial and civil facilities in the contaminated areas to an acceptable radioecological level and which contain more than 0.96 kBq/kg of Cs-137 (for DWT).
DW are divided into two different categories, each requiring a separate approach towards selection of processing technologies:

DWT are solid ChernDW, arisen in the course of clean-up activities in the affected areas (removed soil, roofing slate, other building materials)

DWI are solid and liquid ChernDW, generated during clean-up of equipment contaminated owing to intensive work of ventilation systems at Gomel enterprises in the period after the Chernobyl accident.

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB’s definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Belarus, Republic of Reporting Year: 2006

Reporting Group: **Brest**

Inventory Reporting Date: December 2006

Waste Matrix Used: ChernDW

Description: Construction Amalgamation "Brestoblselstroi"

Site Name	Facility Name	Facilities Defined		
Luninets	Barsukovo			disposal
	Kr.Volya			disposal
Stolin	Koshara			disposal

Reporting Group: **Ekores**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Special enterprise under auspice of Unitary enterprise for waste management "Ekores"

Site Name	Facility Name	Facilities Defined		
RWF Ekores	Rep 3		storage	
	Rep 1		storage	disposal
	Rep 2		storage	disposal
	Kanion 1			disposal
	Kanion 2			disposal
	Well 1			disposal
	Well 2			disposal
	Well 3			disposal
	Well 4			disposal

Comment #145: What is "Ekores" ?

Special enterprise “Ekores" is the part of the Unitary Enterprise “Ekores” that is intended for management of municipal waste. It is the only organization in the country that has license for storage/disposal of radioactive waste generated in industry, medical and research institutions.

Groups Overview

Country: Belarus, Republic of Reporting Year: 2006

Reporting Group: **Military**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: There are two waste repositories that were used by Russian Federation military units and now are located in sites of their former dislocation.

Site Name	Facility Name	Facilities Defined		
Gomel-30	Gomel-30			disposal
Kolosovo	Kolosovo			disposal

Comment #9790: Reporting Group Military

Military storage facilities were constructed in the 1960s in the sites of the Soviet military units. The military units left for the Russian Federation in 1994, and the facilities were abandoned. The two earlier discovered and examined ones are cylindrical concrete wells with the diameter of approximately 1.5 m and depth up to 6 m loaded with sealed sources that are mostly control sources or sources for dosimeters (Cs-137, Co-60, Sr-90).
Storage facilities do not appear on the lists of buildings and facilities that were transferred to the Republic of Belarus when the troops left. There is no documentation on them, which makes judgments on their radiation safety in the long term impossible. However, what is clear is that they do not meet the requirements of the national documents on radioactive waste management.
Currently the advanced examination of the sites is being conducted. This aims at the assessment of radiation danger and identification of measures needed to prevent potential negative effect of the facilities on the population and environment.

Groups Overview

Country: Belarus, Republic of Reporting Year: 2006

Reporting Group: **Polesie**

Inventory Reporting Date: December 2006

Waste Matrix Used: ChernDW

Description: Republican Specialized Unitary Enterprise "Polesie"

Site Name	Facility Name	Facilities Defined		
Bragin	Bragin			disposal
	Hatucha			disposal
	Mariton			disposal
	Mikulichi			disposal
	Nudichi			disposal
	Pet'kovsh.			disposal
	Pirki			disposal
	Savichi-1			disposal
	Savichi-2			disposal
Buda-Kosh	Holochie			disposal
	Lipa			disposal
Chechersk	Budische			disposal
	Chechersk			disposal
	Dubrovka			disposal
	Dudichi			disposal
	Nauhovichi			disposal
	Podluzhie			disposal
	Podosovie			disposal
	Proletar.			disposal
	Rovkovichi			disposal
	Shepetov			disposal
	ShepPop			disposal
Complex	Complex	processing		
Dobrush	Dem'yanki			disposal
	Dubetskoe			disposal
	Korma			disposal
	Kras.Znam.			disposal
	Leont'evo			disposal
	Morozovka1			disposal
	Morozovka2			disposal
	Uborok			disposal
	Vylevo			disposal
Elsk	Kuzimichi			disposal
	Nekrash-2			disposal
Hoiniki	Babchin-1			disposal
	Babchin-2			disposal
	Babchin-3			disposal
	Kozhushki			disposal
	Novoselki			disposal
	Omelikov			disposal
	Poselichi			disposal
	Tulgovichi			disposal
Korma	Gorodok			disposal
	Gorodok-1			disposal
	Hlevno			disposal
	Kosel			disposal
	Salabuta			disposal
	Strumen			disposal

Korma	Strumen-1			disposal
	Strumen-2			disposal
	Zhaunitsa			disposal
Lelichitsa	Usov			disposal
Narovlya	Danileevka			disposal
	Hatki			disposal
	Karpovic-1			disposal
	Karpovic-2			disposal
	Karpovic-3			disposal
	Lisava			disposal
	Osipovka			disposal
Vetka	Akshinka			disposal
	Bartolom			disposal
	Besed			disposal
	Boriba			disposal
	Garusty			disposal
	Guta			disposal
	Hizy			disposal
	Novilovka			disposal
	Novoivanov			disposal
	Podkamen-1			disposal
	Podkamenie			disposal
	Proletar-1			disposal
	Proletar-2			disposal
	Rechki			disposal
	Rudnya-Gul			disposal
	StGrom			disposal
	StGrom-1			disposal
	StZakr			disposal
	Svetilov-1			disposal
	Svetilov-2			disposal
	Uhovo			disposal
	Vetka			disposal
	Yurkovichi			disposal
	Zarechie			disposal

Comment #173: What is Pollyesie enterprise?

Specialized enterprise ‘Polyesie’ was set up in 1992 under the auspices of the Committee for Liquidation of Consequences of the Chernobyl Accident for conducting activity on clean up of the territory, contaminated by the Chernobyl fall-out in Gomel Region. The work includes removal of contaminated soil, decontamination of installations and industrial equipment, dismantling of structures and buildings being not subjected to clean-up. The waste arised from this activity have been named “the decontamination wastes” (hereinafter ChernDW). Since 1992 Polyesie has operated four near-surface repositories, constructed from type designs specially for ChernDW in the Gomel region.

The enterprise also operates a facility for immobilization of liquid waste generated in the process of decontamination of ventilation equipment polluted as a consequences of the Chernobyl accident.

Comment #9712: Reporting Group Polyesie

Decontamination Waste Disposal Site (DWDS) of the first category - special building (container) used for disposal of decontamination waste with specific Cs-137 activity from 100kBq/kg and more that ensures reliable isolation of the waste due to special engineering barriers and hydrotechnical measures and that has a system of constant control over its condition and its affect on the environment.
Decontamination Waste Disposal Site (DWDS) of the second category - building for near surface disposal of decontamination waste with specific Cs-137 activity from 1 to 100 kBq/kg that prevents further migration of radionuclides into the environment due to the use of simple protective clay screens. DWDS equipment should ensure a possibility of control over its condition and its affect on the environment.
Decontamination Waste Disposal Site (DWDS) of the third category - near surface decontamination waste disposal sites set up following the accident without design projects and without taking into account hydrological limitations that require additional measures aimed at their technical improvement and ensuring control over their condition and their affect on the environment.

Reporting Group: **Radon**

Inventory Reporting Date: December 2006

Waste Matrix Used: ChernDW

Description: Republican Unitary Specialized Enterprise "Radon"

Site Name	Facility Name	Facilities Defined		
Cherikov	Lysovka			disposal
Kostyukov	Kolodezsk.			disposal
Krasnopol	Gatskovic			disposal
Slavgorod	Kulikovka			disposal

Comment #178: What is Radon enterprise?

Like the enterprise “Poles'e” in Gomel, a specialized enterprise ‘Radon’ was set up in Mogilev, specially for conducting activity on clean up of the territory, contaminated by the Chernobyl fall-out. The work results in generating “decontamination wastes” (hereinafter ChernDW) which are disposed of in four near-surface repositories, constructed from type designs. According to the existing regulations these repositories are called DWR–2 .They represent territories with one or two reservoirs banked up with embankments 4 m high. The compacted earth bottom and slopes are covered with pugged clay barriers of 0.5 m thick, which are then covered with stabilized polyethylene film. The film is buried with a protective earth layer 0.6 m thick. The repositories are equipped with a net of bore holes along its perimeter.

Reporting Group Brest, Site Structure: Luninets

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Luninets near surface repositories

Location:

License Holder(s) :

Comment #14828: Site Luninets Data

Due to the fact that at the Site Luninets waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Barsukovo

Description	Decontamination waste repository of the third type - DWR-III "Barsukovo"

Disposal part of the "Barsukovo" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1749	Capacity -planned (m3)	1749
Depth (m)			
Host medium	sedimentary (sand)		

Comment #14829: Disposal Facility Barsukovo Data

These data are calculated for material density
2000 kilograms per cubic meter.

Reporting Group Brest, Site Structure: Luninets

Country: Belarus, Republic of — Reporting Year: 2006

Facility: Kr.Volya

Description	Decontamination waste repository of the third type - DWR-III "Krasnaya Volya"

Disposal part of the "Kr.Volya" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	3342	Capacity -planned (m3)	3342
Depth (m)			
Host medium	sedimentary (sand)		

Comment #14830: Disposal Facility Kr.Volya Data

These data are calculated for material density
2000 kilograms per cubic meter.

Reporting Group Brest, Site Data: Luninets

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Luninets near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Barsukovo	No	1749	0	0	0	0	0	100	0	Yes
DWT	Disposal Kr.Volya	No	3342	0	0	0	0	0	100	0	Yes

Comment #14931: Waste Disposal facilities/Class DWT/Site Luninets

Due to the fact that at the Site Luninets waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Brest, Site Structure: Stolin

Country: Belarus, Republic of Reporting Year: 2006

Full Name:	Stolin Republican Unitary Building Enterprise #32 under Construction Amalgamation "Brestoblselstroi"
Location:	52, Tereshkova str. 225510 Stolin Brest province
License Holder(s) :	Stolin Republican Unitary Building Enterprise #32 under Construction Amalgamation "Brestoblselstroi"

Comment #172: Disposal Facility "Kashary"

The site covers one near surface Decontamination Waste Repository (DWR) of type 2 “Kashary” intended for disposal of waste generated in the process of clean up activity in the areas of Brest Province which were contaminated as a result of the Chernobyl Accident. This is one of 8 DWR, constructed from type design specially for Chernobyl waste disposal. All the repositories of this type represent territories with one or two reservoirs banked up with embankments 4 m high. The compacted earth bottom and slopes are covered with pugged clay barriers of 0.5 m thick, which are then covered with stabilized polyethylene film. The film is buried with a protective earth layer 0.6 m thick. The repository is equipped with a net of bore holes along its perimeter

Comment #14831: Site Stolin Data

Due to the fact that at the Site Stolin waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Koshara

Description	Decontamination waste repository of the second category - DWR-II "Koshara"

Disposal part of the "Koshara" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	3000	Capacity -planned (m3)	3000
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
design		1993	1994
construction		1994	1995
commissioning		1995	1995
operation		1995	

Reporting Group Brest, Site Data: Stolin

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Stolin Republican Unitary Building Enterprise #32 under Construction Amalgamation "Brestoblselstroi"

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Koshara	No	2990	0	0	0	0	0	100	0	Yes

Comment #14932: Waste Disposal facilities/Class DWT/Site Stolin

Due to the fact that at the Site Stolin waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Ekores, Site Structure: RWF Ekores

Country: Belarus, Republic of Reporting Year: 2006

Full Name:	Special enterprise for radioactive waste storage/disposal under auspice of Unitary enterprise for waste management "Ekores"
Location:	About 10 km away from Minsk
License Holder(s) :	Unitary enterprise for waste management "Ekores" 35, Selitskogo str. Minsk

Comment #147: What is "RWF Ekores" ?

RWF Ekores (radioactive waste faclity Ekores) is a special enterprise for management of radioactive waste. This is is a typical RADON-type facility, constructed in accordance with the standard project TP-416-9-1 "Disposal radioactive waste enterprise" developed by Moscow Project Institute (GSPI) for Radon-type facilities of the former USSR in 1970. The site comprised laundry, garage for transport vehicles and 2 below surface, reinforced concrete vaults for solid radioactive waste, all of them being put in operation in 1977.
There are 2 concrete lined trenches containing so called "historic" radioactive waste in the territory of the site. They were filled with solid waste between 1964 and 1977.
The "Ekores" radioactive waste facility is situated about 10 km from the center of city of Minsk, a few hundred meters from the location of the former Nuclear Research Reactor and Scientific Center «Sosny». It is the only facility in the country that has been intended for storage/disposal of radioactive waste from small users.
Currently this site is under reconstruction. The reconstruction project is directed at improving physical protection and setting advanced technologies for new coming wastes and spent sources. It also makes provisions that the wastes currently disposed in the vaults and trenches should be retrieved, sorted and treated in the same way as new coming wastes.

Comment #150: Historic Ekores Disposal Facility

The historic Ekores waste disposal facility was originally commissioned in 1964 and comprised 2 concrete lined trenches, up to 4 meters deep. A variety of solid radioactive waste (including sealed sources containing short-lived and long-lived radionuclides) was placed in these trenches. The solid waste was not segregated in the different waste types or conditioned.
The trenches were filled with waste between 1964 and 1977. In 1977 the trenches were closed. Concrete slabs were placed on top of the trenches and these were covered by a layer of bitumen and by a mounded layer of soil. Today the mounds over the trenches can be seen with local vegetation growing on them. At the current rate the total activity of the waste disposed of in the trenches amounts to 17,6 TBq

Comment #151: Ekores storage and disposal facilities

Second generation waste storage/disposal facilities (repositories) were put into operation in 1977. This comprised 2 below surface, reinforced concrete vaults. Each vault was covered by a lightly constructed building to provide environmental protection and acceptable working conditions to operate the facility throughout the year. Each vault has a storage capacity of 830 m3 and is divided into 8 cells. In addition, at one end of each vault there are a pair of so-called «wells» for spent sourcedisposal.
Each of the cells is covered by six concrete slabs. To load waste into a cell, one of the slabs is lifted by overhead crane, the waste is tipped into the cell and the concrete slab is replaced. According to the design the total activity of wastes to be disposed of in the vault is 7,4 TBq/a, with a specific activity of 3,7 MBq/kg.
The waste is collected from the waste producer by "Ekores" staff. It is not conditioned or volume reduced prior to emplacement in the repository. When a storage cell is considered to be full, free space at the top of the cell is filled with sand and a concrete grout.
One of the repositories (Repository # 1) is full to capacity. The total activity of disposed wastes is 252,8 TBq. The concrete slabs over the storage cells have been covered with a layer of asphalt, thus preventing further access to the cells.
It should be noted that in 1989, irradiated fuel from the nearby research reactor was placed in one of the cells in this repository. This comprises around 2kg of ' U in 10 purpose-built stainless steel containers.

Comment #152: Ekores SRS Facilities

SRS Inventory

Storage and disposal of spent sealed radioactive sources at the Ekores Waste Disposal Facility

All spent SRS which had entered entered the facility until 1977 were buried in the concrete trenches (Kanyon 1, Kanyon 2,). After 1977 there existed two options for spent SRS disposal. Those in protective containers with upper wall unloading were disposed of in the vaults for low and intermediate level waste (Rep 1 and Rep 2) together with their biological shielding.
SRS from containers with bottom unloading were disposed of in the bore-hole repositories: Well 1, Well 2, Well 3, Well 4.

By the mid of 90s Kanyon 1, Kanyon 2, and Rep 1 had been closed. Spent SRS disposed of in these repositories are declared today as disposed (not retrievable) radioactive waste. Within Waste data Component of the NEWMBD, the inventory of these SRSs is included into the inventory of LILW in disposal facilities at the Ekores site.

SRS in Rep 2 should be regarded as spent SRS (waste) being in storage in the facilities intended for storage of both SRS and LILW. The structure of the Framework Section of the NEWMBD does not permit to report such kind "mixed" storage. So to settle the issue we need to define an additional dedicated SRS facility "Rep 2SS" at the Ekores site, which is in reality the same facility Rep 2, used for storage of all kinds of wastes.
It should be emphasised that SRS inventory reported to the Waste Data Component of the NEWMBD shows not all but only the most important SRS being under storage and disposal at the Ekores site.

Comment #283: Waste inventory at the RWF "Ekores"

Due to the fact that at the Ekores site waste inventory information is available only in "kg", not in m3, the input screens for inventories of the waste in the Ekores facilities show weight, not volumes (1 m3 = 1 tonne)

The following list the waste management facilities that are located at this site.

Facility: Rep 3

Description	Rep 3 is the storage facility for spent sealed sources.

Storage part of the "Rep 3" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	Yes			

List SRS?	Yes
Capacity	There are 7 wells for spent gamma sources and 4 wells for spent alpha and beta sources.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Rep 3	well	2003	No	No	No	Yes

Reporting Group Ekores, Site Structure: RWF Ekores

Country: Belarus, Republic of Reporting Year: 2006

Facility: Rep 1

Description	Repository 1 is the name of closed repository # 1, which contains variety of conditioned and unconditioned waste generated by small users. It contains also ten containers with irradiated nuclear material.

Storage part of the "Rep 1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Rep 1	trench (lined)	0	Yes	No	No	No

Disposal part of the "Rep 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	Yes	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	820	Capacity -planned (m3)	820
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1970	1972
construction		1975	1976
commissioning		1977	1977
operation		1977	1992
closure		1992	1993
institutional control		1993	

Facility: Rep 2

Description	Repository 2 for storage and disposal of solid low- and intermediate level waste.

Storage part of the "Rep 2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Rep 2	trench (lined)	1979	No	No	No	No

Disposal part of the "Rep 2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	Yes	Yes			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	Yes				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	705	Capacity -planned (m3)	820
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
operation	Yes	1979	

Reporting Group Ekores, Site Structure: RWF Ekores

Country: Belarus, Republic of Reporting Year: 2006

Facility: Kanion 1

Description	Kanion 1 is the name of closed "historical" repository #1 which contains variety of unconditioned waste generated by small users.

Disposal part of the "Kanion 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	200	Capacity -planned (m3)	200
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1958	1960
site selection		1960	1961
design		1961	1962
construction		1961	1963
commissioning		1963	1963
operation		1963	1977
closure		1977	1977
institutional control		1977	

Reporting Group Ekores, Site Structure: RWF Ekores

Country: Belarus, Republic of | Reporting Year: 2006

Facility: Kanion 2

Description	Kanion 2 is the name of closed "historical" repository # 2 which contains variety of unconditioned waste generated by small users.

Disposal part of the "Kanion 2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	225	Capacity -planned (m3)	225
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1958	1960
site selection		1960	1961
design		1961	1962
construction		1961	1963
commissioning		1963	1963
operation		1963	1977
closure		1977	1977
institutional control		1977	

Facility: Well 1

Description	Bore-hole repository for disposal of SRS

Disposal part of the "Well 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	4		
Host medium	crystalline rock (basalt)		

Phase	Estimate	Start Year	End Year
operation		1977	2000

Facility: Well 2

Description	Bore-hole repository for disposal of SRS

Disposal part of the "Well 2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	4		
Host medium	crystalline rock (basalt)		

Phase	Estimate	Start Year	End Year
operation		1977	2000

Facility: Well 3

Description	Bore-hole repository for disposal of SRS

Disposal part of the "Well 3" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	4		
Host medium	crystalline rock (basalt)		

Phase	Estimate	Start Year	End Year
operation		1977	

Facility: Well 4

Description	Bore-hole repository for disposal of SRS

Disposal part of the "Well 4" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	4		
Host medium	crystalline rock (basalt)		

Phase	Estimate	Start Year	End Year
operation		1977	

Reporting Group Ekores, Site Data: RWF Ekores

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Special enterprise for radioactive waste storage/disposal under auspice of Unitary enterprise for waste management "Ekores"

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Waste Class	Status
LILW-SL (in Storage)	Waste data available, will not be reported.
LILW-SL (in Disposal)	Waste data available, will not be reported.
LILW-LL (in Storage)	Waste data available, will not be reported.
LILW-LL (in Disposal)	Waste data available, will not be reported.
HLW (in Disposal)	Waste data available, will not be reported.

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Se-75		6		No	Yes	0	2.23E+04	1989.01 (estimate)
		2.23E+04						
Ir-192		103		No	Yes	0	2.43E+05	1989.01 (estimate)
		2.43E+05						
Co-57	1			No	Yes	0	9.25E-01	1989.01 (estimate)
	9.25E-01							
Co-60	42			No	Yes	0	7.78E-01	1989.01 (estimate)
	7.78E-01							
Cs-137		8		No	Yes	0	9.20E+02	1989.01 (estimate)
		9.20E+02						
Cs-137	52			No	Yes	0	3.20E-03	1989.01 (estimate)
	3.20E-03							
H-3	1			No	Yes	0	3.70E-03	1989.01 (estimate)
	3.70E-03							
Kr-85		1		No	Yes	0	3.70E+01	1989.01 (estimate)
		3.70E+01						
Kr-85	2			No	Yes	0	3.70E-01	1989.01 (estimate)
	3.70E-01							
Tl-204	2			No	Yes	0	1.20E-05	1989.01 (estimate)
	1.20E-05							
Sr-90	295			No	Yes	0	3.36E+00	1989.01 (estimate)
	3.36E+00							
Cs-137		7		No	Yes	0	2.44E+02	1989.01 (estimate)
		2.44E+02						
Cs-137		44		No	Yes	0	2.86E+03	1989.01 (estimate)
		2.86E+03						
Ce-139	2			No	Yes	0	5.36E-05	1989.01 (estimate)
	5.36E-05							
Fe-55	1			No	Yes	0	3.50E+00	1989.01 (estimate)
	3.50E+00							
Mn-54	1			No	Yes	0	8.35E-05	1989.01 (estimate)
	8.35E-05							
Na-22	3			No	Yes	0	1.57E-04	1989.01 (estimate)
	1.57E-04							
Co-60	17			No	Yes	0	6.02E-04	1989.01 (estimate)
	6.02E-04							

Reporting Group Ekores, Site Data: RWF Ekores

Country: Belarus, Republic of Reporting Year: 2006

Cs-137	33			No	Yes	0	1.62E-01	1989.01 (estimate)
	1.62E-01							
Sr-90	3266			No	Yes	0	8.09E+00	1989.01 (estimate)
	8.09E+00							

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Sr-90	1119	138		Yes	No	0	2.06E+03	2000.01
	7.22E+01	1.99E+03						
Sr-90	3915	120		Yes	No	0	3.73E+03	1990.01
	1.84E+03	1.89E+03						
Se-75	15	9		Yes	No	0	7.43E+03	2000.01 (estimate)
	1.27E+01	7.42E+03						
Se-75	6	63		Yes	No	0	2.08E+04	1990.01 (estimate)
	2.04E+01	2.08E+04						
Se-75	13	76		Yes	No	0	8.88E+03	1980.01 (estimate)
	3.80E+01	8.84E+03						
Co-60	39	66	5	Yes	No	0	1.89E+06	2000.01
	1.06E+01	9.50E+05	9.44E+05					
Co-60	432	821	9	Yes	No	0	4.01E+06	1990.01
	4.07E+02	2.28E+06	1.73E+06					
Co-60	127	1841		Yes	No	0	1.30E+05	1980.01
	2.26E+02	1.30E+05						
Ir-192	471	3198		Yes	No	0	5.89E+04	2003.01
	5.87E+00	5.89E+04						
Cs-137	2			Yes	No	0	2.40E-01	2000.12
	2.40E-01							
Cs-137	12	27		Yes	No	0	1.89E+04	1999.12
	2.70E+01	1.89E+04						
Cs-137	2			Yes	No	0	5.93E-03	1998.12
	5.93E-03							
Cs-137	3	1		Yes	No	0	9.48E+00	1997.12
	9.70E-01	8.51E+00						
Cs-137	10	4		Yes	No	0	4.03E+02	1996.12
	1.20E-01	4.03E+02						
Cs-137	1	1		Yes	No	0	2.59E+02	1995.12
	4.00E-04	2.59E+02						
Cs-137	3	1		Yes	No	0	1.86E+02	1994.12
	3.70E-02	1.86E+02						
Cs-137	14			Yes	No	0	1.08E+01	1993.12
	1.08E+01							
Cs-137	123	2		Yes	No	0	2.96E+03	1992.12
	1.85E+00	2.96E+03						
Cs-137	19	53		Yes	No	0	1.07E+04	1991.12
	5.72E+00	1.07E+04						
Cs-137	25	101		Yes	No	0	6.73E+03	1990.12
	7.12E+00	6.72E+03						

Reporting Group Ekores, Site Data: RWF Ekores

Country: Belarus, Republic of Reporting Year: 2006

Cs-137	229	559	5	Yes	No	0	7.94E+05	1990.01 (estimate)
	1.27E+02	3.14E+05	4.80E+05					
Cs-137	185	508		Yes	No	0	2.02E+05	1980.01 (estimate)
	2.74E+02	2.02E+05						
Y-90	2290			Yes	No	0	5.31E+02	
	5.31E+02							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Pu-239 Neutron Gen.		2	No	Yes	0	7.20E+02	1989.01 (estimate)
		7.20E+02					
Am-241	1245		No	Yes	0	6.90E-02	1989.01 (estimate)
	6.90E-02						
Ni-63	5		No	Yes	0	6.10E+00	1989.01 (estimate)
	6.10E+00						
Pu-239	8318		No	Yes	0	2.50E+01	1989.01 (estimate)
	2.50E+01						
Ra-226 Neutron Gen.		1	No	Yes	0	2.60E+00	1989.01 (estimate)
		2.60E+00					
Am-241		9	No	Yes	0	3.04E+01	1989.01 (estimate)
		3.04E+01					
Ra-226	1		No	Yes	0	6.51E-03	1989.01 (estimate)
	6.51E-03						
Am-241	10		No	Yes	0	3.80E-04	1989.01 (estimate)
	3.80E-04						
Ni-63	4		No	Yes	0	4.80E+00	1989.01 (estimate)
	4.80E+00						
C-14	6		No	Yes	0	1.26E-04	1989.01 (estimate)
	1.26E-04						
Pu-239	3207		No	Yes	0	1.90E+00	1989.01 (estimate)
	1.90E+00						

Comment #14943: Nature of neutron generators

This is Ra-226+Be-4 source which is stored safely in a special well.
These are Pu-239+Be-4 sources which are stored safely in a special well.

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Am-241	274	25	No	Yes	0	2.96E+02	2004.12
	7.45E+00	2.89E+02					
Ni-63	1		No	Yes	3	1.20E+00	1998.12
	1.20E+00						
Ni-63	1		No	Yes	3	3.00E-01	1995.12
	3.00E-01						

Reporting Group Ekores, Site Data: RWF Ekores

Country: Belarus, Republic of Reporting Year: 2006

Ni-63	1 1.20E+00		No	Yes	3	1.20E+00	1994.12
Ni-63	1 1.20E+00		No	Yes	3	1.20E+00	1992.12
Ni-63	11 1.30E+01		No	Yes	3	1.30E+01	1991.12
Ni-63	4 3.10E+00		No	Yes	3	3.10E+00	1990.12
Ni-63	14 6.40E+00	1 4.10E+01	No	Yes	3	4.74E+01	1989.12
Ra-226	419 1.20E+00	5 3.50E+01	No	Yes	3	3.62E+01	
Pu-239	54838 6.70E+02		No	Yes	3	6.70E+02	2003.12

Reporting Group Military, Site Structure: Gomel-30

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Waste repository "Gomel-30"

Location: Rechitsa region of Gomel province

License Holder(s) : Ministry of Internal Affairs

The following list the waste management facilities that are located at this site.

Facility: Gomel-30

Description	Bore-hole repository

Disposal part of the "Gomel-30" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	12	Capacity -planned (m3)	12
Depth (m)	7		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
construction		1963	1963
operation			1987

Reporting Group Military, Site Structure: Kolosovo

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Waste repository "Kolosovo"

Location: Stolbtsy region of Minsk province

License Holder(s) : Ministry of Defense

The following list the waste management facilities that are located at this site.

Facility: Kolosovo

Description	Bore-hole repository

Disposal part of the "Kolosovo" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	28	Capacity -planned (m3)	28
Depth (m)	1		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
construction	Yes	1960	1960
operation			1987

Reporting Group Polesie, Site Structure: Bragin

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Bragin near surface repositories

Location: Bragin region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14871: Site Bragin Data

Due to the fact that at the Site Bragin waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Bragin

Description	Decontamination waste repository of the third type - DWR-III "Bragin"

Disposal part of the "Bragin" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	900	Capacity -planned (m3)	900
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14873: Disposal Facility Bragin Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Bragin

Country: Belarus, Republic of Reporting Year: 2006

Facility: Hatucha

Description	Decontamination waste repository of the third type - DWR-III "Hatucha"

Disposal part of the "Hatucha" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	6500	Capacity -planned (m3)	6500
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14880: Disposal Facility Hatucha Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Bragin

Country: Belarus, Republic of Reporting Year: 2006

Facility: Mariton

Description	Decontamination waste repository of the third type - DWR-III "Mariton"

Disposal part of the "Mariton" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	30000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14872: Disposal Facility Mariton Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Bragin

Country: Belarus, Republic of Reporting Year: 2006

Facility: Mikulichi

Description	Decontamination waste repository of the third type - DWR-III "Mikulichi"

Disposal part of the "Mikulichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	6991	Capacity -planned (m3)	6991
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14874: Disposal Facility Mikulichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Nudichi

Description	Decontamination waste repository of the third type - DWR-III "Nudichi"

Disposal part of the "Nudichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	20000	Capacity -planned (m3)	20000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14875: Disposal Facility Nudichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Bragin

Country: Belarus, Republic of Reporting Year: 2006

Facility: Pet'kovsh.

Description	Decontamination waste repository of the third type - DWR-III "Pet'kovschina"

Disposal part of the "Pet'kovsh." facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	28912	Capacity -planned (m3)	28912
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14876: Disposal Facility Pet'kovsh. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Pirki

Description	Decontamination waste repository of the third type - DWR-III "Pirki"

Disposal part of the "Pirki" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	6755	Capacity -planned (m3)	6755
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14877: Disposal Facility Pirki Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Bragin

Country: Belarus, Republic of | Reporting Year: 2006

Facility: Savichi-1

Description	Decontamination waste repository of the third type - DWR-III "Savichi-1"

Disposal part of the "Savichi-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	22000	Capacity -planned (m3)	22000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14878: Disposal Facility Savichi-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Bragin

Country: Belarus, Republic of Reporting Year: 2006

Facility: Savichi-2

Description	Decontamination waste repository of the third type - DWR-III "Savichi-2"

Disposal part of the "Savichi-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	12000	Capacity -planned (m3)	12000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14879: Disposal Facility Savichi-2 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Bragin

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Bragin near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Bragin	No	900	0	0	0	0	0	100	0	Yes
DWT	Disposal Hatucha	No	980	0	0	0	0	0	100	0	Yes
DWT	Disposal Mariton	No	26786	0	0	0	0	0	100	0	Yes
DWT	Disposal Mikulichi	No	6991	0	0	0	0	0	100	0	Yes
DWT	Disposal Nudichi	No	7690	0	0	0	0	0	100	0	Yes
DWT	Disposal Pet'kovsh.	No	28912	0	0	0	0	0	100	0	Yes
DWT	Disposal Pirki	No	6755	0	0	0	0	0	100	0	Yes
DWT	Disposal Savichi-1	No	11250	0	0	0	0	0	100	0	Yes
DWT	Disposal Savichi-2	No	3000	0	0	0	0	0	100	0	Yes

Comment #14933: Waste Disposal facilities/Class DWT/Site Bragin

Due to the fact that at the Site Bragin waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Buda-Kosh

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Buda-Kosheleva near surface repositories

Location: Buda-Kosheleva region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14915: Site Buda-Kosh. Data

Due to the fact that at the Site Buda-Kosh. waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Holochie

Description	Decontamination waste repository of the third type - DWR-III "Holoch'e"

Disposal part of the "Holochie" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	4325	Capacity -planned (m3)	4325
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14917: Disposal Facility Holoch'e Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Buda-Kosh

Country: Belarus, Republic of Reporting Year: 2006

Facility: Lipa

Description	Decontamination waste repository of the third type - DWR-III "Lipa"

Disposal part of the "Lipa" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	4300	Capacity -planned (m3)	4300
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14916: Disposal Facility Lipa Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Buda-Kosh

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Buda-Kosheleva near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Holochie	No	3923	0	0	0	0	0	100	0	Yes
DWT	Disposal Lipa	No	1900	0	0	0	0	0	100	0	Yes

Comment #14934: Waste Disposal facilities/Class DWT/Site Buda-Kosh

Due to the fact that at the Site Buda-Kosh. waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Chechersk

Country: Belarus, Republic of — Reporting Year: 2006

Full Name: Chechersk near surface repositories

Location: Chechersk region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14859: Site Chechersk Data

Due to the fact that at the Site Chechersk waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Budische

Description	Decontamination waste repository of the third type - DWR-III "Budische"

Disposal part of the "Budische" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	600	Capacity -planned (m3)	600
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14868: Disposal Facility Budische Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Chechersk

Country: Belarus, Republic of Reporting Year: 2006

Facility: Chechersk

Description	Decontamination waste repository of the third type - DWR-III "Chechersk"

Disposal part of the "Chechersk" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	4500	Capacity -planned (m3)	4500
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14863: Disposal Facility Chechersk Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Chechersk

Country: Belarus, Republic of Reporting Year: 2006

Facility: Dubrovka

Description	Decontamination waste repository of the third type - DWR-III "Dubrovka"

Disposal part of the "Dubrovka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	6905	Capacity -planned (m3)	6905
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14865: Disposal Facility Dubrovka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Dudichi

Description	Decontamination waste repository of the third type - DWR-III "Dudichi"

Disposal part of the "Dudichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	758	Capacity -planned (m3)	758
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14862: Disposal Facility Dudichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Nauhovichi

Description	Decontamination waste repository of the third type - DWR-III "Nauhovichi"

Disposal part of the "Nauhovichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	3670	Capacity -planned (m3)	3670
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14864: Disposal Facility Nauhovichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Podluzhie

Description	Decontamination waste repository of the third type - DWR-III "Podluzh'e"

Disposal part of the "Podluzhie" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1960	Capacity -planned (m3)	1960
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14858: Disposal Facility Podluzh'e Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Chechersk

Country: Belarus, Republic of Reporting Year: 2006

Facility: Podosovie

Description	Decontamination waste repository of the third type - DWR-III "Podosov'e"

Disposal part of the "Podosovie" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	800	Capacity -planned (m3)	800
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14870: Disposal Facility Podosov'e Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Proletar.

Description	Decontamination waste repository of the third type - DWR-III "Proletarskiy (Holoch'e)"

Disposal part of the "Proletar." facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	500	Capacity -planned (m3)	500
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14866: Disposal Facility Proletar. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Rovkovichi

Description	Decontamination waste repository of the third type - DWR-III "Rovkovichi"

Disposal part of the "Rovkovichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1739	Capacity -planned (m3)	1739
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14861: Disposal Facility Rovkovichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Shepetov

Description	Decontamination waste repository of the second type - DWR-II "Shepetovichi"

Disposal part of the "Shepetov" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	Yes
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	30000
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
construction			1991
commissioning		1991	1991
operation		1991	

Comment #14860: Disposal Facility Shepetov. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: ShepPop

Description	Decontamination waste repository of the third type - DWR-III "Shepetovichskie Poplavy"

Disposal part of the "ShepPop" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1568	Capacity -planned (m3)	1568
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14867: Disposal Facility Shep.Pop. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Chechersk

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Chechersk near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Budische	No	214	0	0	0	0	0	100	0	Yes
DWT	Disposal Chechersk	No	1665	0	0	0	0	0	100	0	Yes
DWT	Disposal Dubrovka	No	6905	0	0	0	0	0	100	0	Yes
DWT	Disposal Dudichi	No	758	0	0	0	0	0	100	0	Yes
DWT	Disposal Nauhovichi	No	3670	0	0	0	0	0	100	0	Yes
DWT	Disposal Podluzhie	No	500	0	0	0	0	0	100	0	Yes
DWT	Disposal Podosovie	No	85	0	0	0	0	0	100	0	Yes
DWT	Disposal Proletar.	No	107	0	0	0	0	0	100	0	Yes
DWT	Disposal Rovkovichi	No	1739	0	0	0	0	0	100	0	Yes
DWT	Disposal Shepetov	No	17394	0	0	0	0	0	100	0	Yes
DWT	Disposal ShepPop	No	1568	0	0	0	0	0	100	0	Yes

Comment #14935: Waste Disposal facilities/Class DWT/Site Chechersk

Due to the fact that at the Site Chechersk waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Complex

Country: Belarus, Republic of | Reporting Year: 2006

Full Name: Complex on conditioning decontamination waste

Location: 16, Fedyuninskogo str.
Gomel

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

The following list the waste management facilities that are located at this site.

Facility: Complex

Description	A facility for immobilization of waste generated in the process of decontamination of ventilation equipment, which was polluted as a result of Chernobyl Accident

Reporting Group Polesie, Site Data: Complex

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Complex on conditioning decontamination waste

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination			same	
Evaporation		Yes	same	
Filtration		Yes	same	
Organic Destruction		Yes	same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation		Yes	same	

Reporting Group Polesie, Site Structure: Dobrush

Country: Belarus, Republic of   Reporting Year: 2006

Full Name: Dobrush near surface repositories

Location: Dobrush region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14881: Site Dobrush

Due to the fact that at the Site Dobrush waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Dem'yanki

Description	Decontamination waste repository of the third type - DWR-III "Dem'yanki"

Disposal part of the "Dem'yanki" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1706	Capacity -planned (m3)	1706
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14888: Disposal Facility Dem'yanki Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Dubetskoe

Description	Decontamination waste repository of the third type - DWR-III "Dubetskoe"

Disposal part of the "Dubetskoe" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	2615	Capacity -planned (m3)	2615
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14883: Disposal Facility Dubetskoe Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Dobrush

Country: Belarus, Republic of | Reporting Year: 2006

Facility: Korma

Description	Decontamination waste repository of the third type - DWR-III "Korma"

Disposal part of the "Korma" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1288	Capacity -planned (m3)	1288
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14884: Disposal Facility Korma Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Dobrush

Country: Belarus, Republic of Reporting Year: 2006

Facility: Kras.Znam.

Description	Decontamination waste repository of the third type - DWR-III "Krasnoe Znamya"

Disposal part of the "Kras.Znam." facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	507	Capacity -planned (m3)	507
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14889: Disposal Facility Kras.Znam. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Dobrush

Country: Belarus, Republic of Reporting Year: 2006

Facility: Leont'evo

Description	Decontamination waste repository of the third type - DWR-III "Leont'evo"

Disposal part of the "Leont'evo" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	385	Capacity -planned (m3)	385
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14887: Disposal Facility Leont'evo Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Dobrush

Country: Belarus, Republic of Reporting Year: 2006

Facility: Morozovka1

Description	Decontamination waste repository of the third type - DWR-III "Morozovka-1"

Disposal part of the "Morozovka1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1818	Capacity -planned (m3)	1818
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14885: Disposal Facility Morozovka1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Dobrush

Country: Belarus, Republic of | Reporting Year: 2006

Facility: Morozovka2

Description	Decontamination waste repository of the third type - DWR-III "Morozovka-2"

Disposal part of the "Morozovka2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	47	Capacity -planned (m3)	47
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14886: Disposal Facility Morozovka2 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Uborok

Description	Decontamination waste repository of the third type - DWR-III "Uborok"

Disposal part of the "Uborok" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	234	Capacity -planned (m3)	234
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14882: Disposal Facility Uborok Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Vylevo

Description	Decontamination waste repository of the third type - DWR-III "Vylevo"

Disposal part of the "Vylevo" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	3587	Capacity -planned (m3)	3587
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14890: Disposal Facility Vylevo Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Dobrush

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Dobrush near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Dem'yanki	No	1706	0	0	0	0	0	100	0	Yes
DWT	Disposal Dubetskoe	No	2615	0	0	0	0	0	100	0	Yes
DWT	Disposal Korma	No	1288	0	0	0	0	0	100	0	Yes
DWT	Disposal Kras.Znam.	No	507	0	0	0	0	0	100	0	Yes
DWT	Disposal Leont'evo	No	385	0	0	0	0	0	100	0	Yes
DWT	Disposal Morozovka1	No	1818	0	0	0	0	0	100	0	Yes
DWT	Disposal Morozovka2	No	47	0	0	0	0	0	100	0	Yes
DWT	Disposal Uborok	No	234	0	0	0	0	0	100	0	Yes
DWT	Disposal Vylevo	No	3587	0	0	0	0	0	100	0	Yes

Comment #14936: Waste Disposal facilities/Class DWT/Site Dobrush

Due to the fact that at the Site Dobrush waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Elsk

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Elsk near surface repositories

Location: Elsk region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14918: Site Elsk Data

Due to the fact that at the Site Elsk waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Kuzimichi

Description	Decontamination waste repository of the third type - DWR-III "Kuz'michi"

Disposal part of the "Kuzimichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	63	Capacity -planned (m3)	63
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14920: Disposal Facility Kuz'michi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Elsk

Country: Belarus, Republic of Reporting Year: 2006

Facility: Nekrash-2

Description	Decontamination waste repository of the third type - DWR-III "Nekrashevka-2"

Disposal part of the "Nekrash-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	Yes
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	10000	Capacity -planned (m3)	10000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14919: Disposal Facility Nekrash.-2 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Elsk

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Elsk near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Kuzimichi	No	63	0	0	0	0	0	100	0	Yes
DWT	Disposal Nekrash-2	No	6303	0	0	0	0	0	100	0	Yes

Comment #14937: Waste Disposal facilities/Class DWT/Site Elsk

Due to the fact that at the Site Elsk waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Hoiniki

Country: Belarus, Republic of | Reporting Year: 2006

Full Name: Hoiniki near surface repositories

Location: Hoiniki region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14901: Site Hoiniki Data

Due to the fact that at the Site Hoiniki waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Babchin-1

Description	Decontamination waste repository of the third type - DWR-III "Babchin-1"

Disposal part of the "Babchin-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	90000	Capacity -planned (m3)	90000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14904: Disposal Facility Babchin-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Babchin-2

Description	Decontamination waste repository of the third type - DWR-III "Babchin-2"

Disposal part of the "Babchin-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	25000	Capacity -planned (m3)	25000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14905: Disposal Facility Babchin-2 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Babchin-3

Description	Decontamination waste repository of the second type - DWR-II "Babchin-3"

Disposal part of the "Babchin-3" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	Yes
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	30000
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
construction			1991
commissioning		1991	1991
operation		1991	

Comment #14906: Disposal Facility Babchin-3 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Hoiniki

Country: Belarus, Republic of | Reporting Year: 2006

Facility: Kozhushki

Description	Decontamination waste repository of the third type - DWR-III "Kozhushki"

Disposal part of the "Kozhushki" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	60000	Capacity -planned (m3)	60000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986
institutional control		1986	1986

Comment #14903: Disposal Facility Kozhushki Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Hoiniki

Country: Belarus, Republic of Reporting Year: 2006

Facility: Novoselki

Description	Decontamination waste repository of the third type - DWR-III "Novoselki"

Disposal part of the "Novoselki" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	80000	Capacity -planned (m3)	80000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14908: Disposal Facility Novoselki Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Hoiniki

Country: Belarus, Republic of Reporting Year: 2006

Facility: Omelikov

Description	Decontamination waste repository of the third type - DWR-III "Omel'kovschina"

Disposal part of the "Omelikov" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	16000	Capacity -planned (m3)	16000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14907: Disposal Facility Omel'kov. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Poselichi

Description	Decontamination waste repository of the third type - DWR-III "Poselichi"

Disposal part of the "Poselichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	20000	Capacity -planned (m3)	20000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14909: Disposal Facility Poselichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Tulgovichi

Description	Decontamination waste repository of the third type - DWR-III "Tul'govichi"

Disposal part of the "Tulgovichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	30000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14902: Disposal Facility Tulgovichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Hoiniki

Country: Belarus, Republic of — Reporting Year: 2006

Full Name: Hoiniki near surface repositories

Inventory Reporting Date: December 2006 — Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Babchin-1	No	6250	0	0	0	0	0	100	0	Yes
DWT	Disposal Babchin-2	No	2430	0	0	0	0	0	100	0	Yes
DWT	Disposal Babchin-3	No	11499	0	0	0	0	0	100	0	Yes
DWT	Disposal Kozhushki	No	4750	0	0	0	0	0	100	0	Yes
DWT	Disposal Novoselki	No	3865	0	0	0	0	0	100	0	Yes
DWT	Disposal Omelikov	No	625	0	0	0	0	0	100	0	Yes
DWT	Disposal Poselichi	No	2847	0	0	0	0	0	100	0	Yes
DWT	Disposal Tulgovichi	No	6900	0	0	0	0	0	100	0	Yes

Comment #14938: Waste Disposal facilities/Class DWT/Site Hoiniki

Due to the fact that at the Site Hoiniki waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Korma

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Korma near surface repositories

Location: Korma region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14891: Site Korma Data

Due to the fact that at the Site Korma waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Gorodok

Description	Decontamination waste repository of the third type - DWR-III "Gorodok"

Disposal part of the "Gorodok" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	10000	Capacity -planned (m3)	10000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14897: Disposal Facility Gorodok Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Gorodok-1

Description	Decontamination waste repository of the third type - DWR-III "Gorodok-1"

Disposal part of the "Gorodok-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1535	Capacity -planned (m3)	1535
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14898: Disposal Facility Gorodok-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Hlevno

Description	Decontamination waste repository of the third type - DWR-III "Hlevno"

Disposal part of the "Hlevno" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1071	Capacity -planned (m3)	1071
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14893: Disposal Facility Hlevno Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Korma

Country: Belarus, Republic of Reporting Year: 2006

Facility: Kosel

Description	Decontamination waste repository of the third type - DWR-III "Kosel'"

Disposal part of the "Kosel" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1500	Capacity -planned (m3)	1500
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14892: Disposal Facility Kosel' Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Korma

Country: Belarus, Republic of Reporting Year: 2006

Facility: Salabuta

Description	Decontamination waste repository of the third type - DWR-III "Salabuta"

Disposal part of the "Salabuta" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	2000	Capacity -planned (m3)	2000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14894: Disposal Facility Salabuta Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Korma

Country: Belarus, Republic of Reporting Year: 2006

Facility: Strumen

Description	Decontamination waste repository of the third type - DWR-III "Strumen'"

Disposal part of the "Strumen" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	2000	Capacity -planned (m3)	2000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14896: Disposal Facility Strumen' Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Korma

Country: Belarus, Republic of Reporting Year: 2006

Facility: Strumen-1

Description	Decontamination waste repository of the third type - DWR-III "Strumen'-1"

Disposal part of the "Strumen-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	91	Capacity -planned (m3)	91
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14899: Disposal Facility Strumen'-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Korma

Country: Belarus, Republic of Reporting Year: 2006

Facility: Strumen-2

Description	Decontamination waste repository of the third type - DWR-III "Strumen'-1"

Disposal part of the "Strumen-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	3720	Capacity -planned (m3)	3720
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14900: Disposal Facility Strumen'-2 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Korma

Country: Belarus, Republic of Reporting Year: 2006

Facility: Zhaunitsa

Description	Decontamination waste repository of the third type - DWR-III "Zhaunitsa"

Disposal part of the "Zhaunitsa" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	800	Capacity -planned (m3)	800
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14895: Disposal Facility Zhaunitsa Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Korma

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Korma near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Gorodok	No	6772	0	0	0	0	0	100	0	Yes
DWT	Disposal Gorodok-1	No	1535	0	0	0	0	0	100	0	Yes
DWT	Disposal Hlevno	No	1071	0	0	0	0	0	100	0	Yes
DWT	Disposal Kosel	No	283	0	0	0	0	0	100	0	Yes
DWT	Disposal Salabuta	No	1044	0	0	0	0	0	100	0	Yes
DWT	Disposal Strumen	No	332	0	0	0	0	0	100	0	Yes
DWT	Disposal Strumen-1	No	91	0	0	0	0	0	100	0	Yes
DWT	Disposal Strumen-2	No	3720	0	0	0	0	0	100	0	Yes
DWT	Disposal Zhaunitsa	No	125	0	0	0	0	0	100	0	Yes

Comment #14939: Waste Disposal facilities/Class DWT/Site Korma

Due to the fact that at the Site Korma waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Lelichitsa

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Lelichitsa near surface repositories

Location: Lelichitsa region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14921: Site Lel'chitsa Data

Due to the fact that at the Site Lel'chitsa waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Usov

Description	Decontamination waste repository of the third type - DWR-III "Usov"

Disposal part of the "Usov" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	500	Capacity -planned (m3)	500
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14922: Disposal Facility Usov Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Lelichitsa

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Lelichitsa near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Usov	No	111	0	0	0	0	0	100	0	Yes

Comment #14940: Waste Disposal facilities/Class DWT/Site Lel'chits

Due to the fact that at the Site Lel'chitsa waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Narovlya

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Narovlya near surface repositories

Location: Narovlya region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14910: Site Narovlya

Due to the fact that at the Site Narovlya waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Danileevka

Description	Decontamination waste repository of the third type - DWR-III "Danileevka"

Disposal part of the "Danileevka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	29340	Capacity -planned (m3)	29340
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14914: Disposal Facility Danileevka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Narovlya

Country: Belarus, Republic of Reporting Year: 2006

Facility: Hatki

Description	Decontamination waste repository of the first type - DWR-I "Hatki"

Disposal part of the "Hatki" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	Yes
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	10000	Capacity -planned (m3)	10000
Depth (m)	4		
Host medium	sedimentary rock (plastic clay)		

Phase	Estimate	Start Year	End Year
design		1990	1991
construction		1991	1991
commissioning		1992	1992
operation		1992	

Comment #14911: Disposal Facility Hatki Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Karpovic-1

Description	Decontamination waste repository of the third type - DWR-III "Karpovichi-1"

Disposal part of the "Karpovic-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1580	Capacity -planned (m3)	1580
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Reporting Group Polesie, Site Structure: Narovlya

Country: Belarus, Republic of Reporting Year: 2006

Facility: Karpovic-2

Description	Decontamination waste repository of the third type - DWR-III "Karpovichi-2"

Disposal part of the "Karpovic-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	7600	Capacity -planned (m3)	7600
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Facility: Karpovic-3

Description	Decontamination waste repository of the third type - DWR-III "Karpovichi-3"

Disposal part of the "Karpovic-3" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	29777	Capacity -planned (m3)	29777
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Reporting Group Polesie, Site Structure: Narovlya

Country: Belarus, Republic of   Reporting Year: 2006

Facility: Lisava

Description	Decontamination waste repository of the third type - DWR-III "Lisava"

Disposal part of the "Lisava" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	21210	Capacity -planned (m3)	21210
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14912: Disposal Facility Lisava Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Narovlya

Country: Belarus, Republic of Reporting Year: 2006

Facility: Osipovka

Description	Decontamination waste repository of the third type - DWR-III "Osipovka"

Disposal part of the "Osipovka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	33420	Capacity -planned (m3)	33420
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14913: Disposal Facility Osipovka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Narovlya

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Narovlya near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Danileevka	No	15192	0	0	0	0	0	100	0	Yes
DWT	Disposal Hatki	No	1548	0	0	0	0	0	100	0	Yes
DWT	Disposal Karpovic-1	No	1580	0	0	0	0	0	100	0	Yes
DWT	Disposal Karpovic-2	No	7600	0	0	0	0	0	100	0	Yes
DWT	Disposal Karpovic-3	No	29777	0	0	0	0	0	100	0	Yes
DWT	Disposal Lisava	No	16854	0	0	0	0	0	100	0	Yes
DWT	Disposal Osipovka	No	2740	0	0	0	0	0	100	0	Yes

Comment #14941: Waste Disposal facilities/Class DWT/Site Narovlya

Due to the fact that at the Site Narovlya waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of | Reporting Year: 2006

Full Name: Vetka near surface repositories

Location: Vetka region of Gomel province

License Holder(s) : Republican Specialized Unitary Enterprise "Poles'e"
11, Karpovicha str.
246017 Gomel

Comment #14832: Site Vetka Data

Due to the fact that at the Site Vetka waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Akshinka

Description	Decontamination waste repository of the third type - DWR-III "Akshinka"

Disposal part of the "Akshinka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	2455	Capacity -planned (m3)	2455
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14834: Disposal Facility Akshinka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Bartolom

Description	Decontamination waste repository of the third type - DWR-III "Bartolomeevka"

Disposal part of the "Bartolom" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	3205	Capacity -planned (m3)	3205
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14836: Disposal Facility Bartolom Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Facility: Besed

Description	Decontamination waste repository of the third type - DWR-III "Besed"

Disposal part of the "Besed" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	138	Capacity -planned (m3)	138
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14841: Disposal Facility Besed Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Facility: Boriba

Description	Decontamination waste repository of the third type - DWR-III "Bor'ba"

Disposal part of the "Boriba" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1083	Capacity -planned (m3)	1083
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14848: Disposal Facility Bor'ba Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Garusty

Description	Decontamination waste repository of the third type - DWR-III "Garusty"

Disposal part of the "Garusty" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1000	Capacity -planned (m3)	1000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14838: Disposal Facility Garusty Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Guta

Description	Decontamination waste repository of the third type - DWR-III "Guta"

Disposal part of the "Guta" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	20000	Capacity -planned (m3)	20000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14839: Disposal Facility Guta Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Hizy

Description	Decontamination waste repository of the third type - DWR-III "Hizy"

Disposal part of the "Hizy" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	400	Capacity -planned (m3)	400
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14850: Disposal Facility Hizy Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Novilovka

Description	Decontamination waste repository of the third type - DWR-III "Novilovka"

Disposal part of the "Novilovka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	5000	Capacity -planned (m3)	5000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14842: Disposal Facility Novilovka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Facility: Novoivanov

Description	Decontamination waste repository of the third type - DWR-III "Novoivanovka"

Disposal part of the "Novoivanov" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	300	Capacity -planned (m3)	300
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14856: Disposal Facility Novoivanov Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Podkamen-1

Description	Decontamination waste repository of the third type - DWR-III "Podkamen'e-1"

Disposal part of the "Podkamen-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	2128	Capacity -planned (m3)	2128
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14843: Disposal Facility Podkamen-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Podkamenie

Description	Decontamination waste repository of the second type - DWR-II "Podkamen'e"

Disposal part of the "Podkamenie" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	30000
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
construction			1994
commissioning		1994	1994
operation		1994	

Comment #14853: Disposal Facility Podkamen'e Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Proletar-1

Description	Decontamination waste repository of the third type - DWR-III "Proletarskiy-1"

Disposal part of the "Proletar-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	654	Capacity -planned (m3)	654
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14844: Disposal Facility Proletar-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Facility: Proletar-2

Description	Decontamination waste repository of the third type - DWR-III "Proletarskiy-2"

Disposal part of the "Proletar-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1333	Capacity -planned (m3)	1333
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14845: Disposal Facility Proletar-2 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Rechki

Description	Decontamination waste repository of the second type - DWR-II "Rechki"

Disposal part of the "Rechki" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	21965	Capacity -planned (m3)	21965
Depth (m)	3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
construction			1991
commissioning		1991	1991
operation		1991	

Comment #14852: Disposal Facility Rechki Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Rudnya-Gul

Description	Decontamination waste repository of the third type - DWR-III "Rudnya-Gulevo"

Disposal part of the "Rudnya-Gul" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	417	Capacity -planned (m3)	417
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14846: Disposal Facility Rudnya-Gul Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: StGrom

Description	Decontamination waste repository of the third type - DWR-III "Starye Gromyki"

Disposal part of the "StGrom" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	720	Capacity -planned (m3)	720
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14837: Disposal Facility St.Grom. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: StGrom-1

Description	Decontamination waste repository of the third type - DWR-III "Starye Gromyki-1"

Disposal part of the "StGrom-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1290	Capacity -planned (m3)	1290
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14847: Disposal Facility St.Grom.-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Facility: StZakr

Description	Decontamination waste repository of the third type - DWR-III "Staroe Zakruzh'e"

Disposal part of the "StZakr" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1964	Capacity -planned (m3)	1964
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14857: Disposal Facility St.Zakr. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Svetilov-1

Description	Decontamination waste repository of the third type - DWR-III "Svetilovichi-1"

Disposal part of the "Svetilov-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	10000	Capacity -planned (m3)	10000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14854: Disposal Facility Svetilov-1 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Svetilov-2

Description	Decontamination waste repository of the third type - DWR-III "Svetilovichi-2"

Disposal part of the "Svetilov-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	7000	Capacity -planned (m3)	7000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14855: Disposal Facility Svetilov-2 Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Facility: Uhovo

Description	Decontamination waste repository of the third type - DWR-III "Uhovo"

Disposal part of the "Uhovo" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	500	Capacity -planned (m3)	500
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14849: Disposal Facility Uhovo Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Structure: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Facility: Vetka

Description	Decontamination waste repository of the third type - DWR-III "Vetka"

Disposal part of the "Vetka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	2354	Capacity -planned (m3)	2354
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14835: Disposal Facility Vetka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Yurkovichi

Description	Decontamination waste repository of the third type - DWR-III "Yurkovichi"

Disposal part of the "Yurkovichi" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	18552	Capacity -planned (m3)	18552
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14851: Disposal Facility Yurkovichi Data

These data are calculated for material density 2000 kilograms per cubic meter.

Facility: Zarechie

Description	Decontamination waste repository of the third type - DWR-III "Zarech'e"

Disposal part of the "Zarechie" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	No	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	10000	Capacity -planned (m3)	10000
Depth (m)			
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1986
site selection		1986	1986
design		1986	1986
construction		1986	1986
commissioning		1986	1986
operation		1986	1986
closure		1986	1986

Comment #14840: Disposal Facility Zarech'e Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Polesie, Site Data: Vetka

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Vetka near surface repositories

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Akshinka	No	2455	0	0	0	0	0	100	0	Yes
DWT	Disposal Bartolom	No	3205	0	0	0	0	0	100	0	Yes
DWT	Disposal Besed	No	138	0	0	0	0	0	100	0	Yes
DWT	Disposal Boriba	No	1083	0	0	0	0	0	100	0	Yes
DWT	Disposal Garusty	No	156	0	0	0	0	0	100	0	Yes
DWT	Disposal Guta	No	4063	0	0	0	0	0	100	0	Yes
DWT	Disposal Hizy	No	400	0	0	0	0	0	100	0	Yes
DWT	Disposal Novilovka	No	1640	0	0	0	0	0	100	0	Yes
DWT	Disposal Novoivanov	No	300	0	0	0	0	0	100	0	Yes
DWT	Disposal Podkamen-1	No	2128	0	0	0	0	0	100	0	Yes
DWT	Disposal Podkamenie	No	4406	0	0	0	0	0	100	0	Yes
DWT	Disposal Proletar-1	No	654	0	0	0	0	0	100	0	Yes
DWT	Disposal Proletar-2	No	1333	0	0	0	0	0	100	0	Yes
DWT	Disposal Rechki	No	7667	0	0	0	0	0	100	0	Yes
DWT	Disposal Rudnya-Gul	No	417	0	0	0	0	0	100	0	Yes
DWT	Disposal StGrom	No	720	0	0	0	0	0	100	0	Yes
DWT	Disposal StGrom-1	No	1290	0	0	0	0	0	100	0	Yes
DWT	Disposal StZakr	No	1964	0	0	0	0	0	100	0	Yes
DWT	Disposal Svetilov-1	No	1094	0	0	0	0	0	100	0	Yes
DWT	Disposal Svetilov-2	No	2690	0	0	0	0	0	100	0	Yes
DWT	Disposal Uhovo	No	135	0	0	0	0	0	100	0	Yes
DWT	Disposal Vetka	No	2354	0	0	0	0	0	100	0	Yes
DWT	Disposal Yurkovichi	No	18552	0	0	0	0	0	100	0	Yes
DWT	Disposal Zarechie	No	2381	0	0	0	0	0	100	0	Yes

Comment #14942: Waste Disposal facilities/Class DWT/Site Vetka

Due to the fact that at the Site Vetka waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Radon, Site Structure: Cherikov

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Cherikov near surface repository

Location: Cherikov region of Mogilev province

License Holder(s) : Republican Unitary Specialized Enterprise "Radon"
29, Kaludzkaya str.
Mogilev

Comment #14923: Site Cherikov Data

Due to the fact that at the Site Cherikov waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Lysovka

Description	Decontamination waste repository of the second type - DWR-II "Lysovka"

Disposal part of the "Lysovka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	52000	Capacity -planned (m3)	52000
Depth (m)	4		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
site selection		1986	1986
design		1986	1987
construction		1987	1987
commissioning		1987	1987
operation		1987	

Comment #14924: Disposal Facility Lysovka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Radon, Site Data: Cherikov

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Cherikov near surface repository

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Lysovka	No	20545	0	0	0	0	0	100	0	Yes

Reporting Group Radon, Site Structure: Kostyukov

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Kostyukovichi near surface repository

Location: Kostyukovichi region of Mogilev province

License Holder(s) : Republican Unitary Specialized Enterprise "Radon"
29, Kaludzkaya str.
Mogilev

Comment #14925: Site Kostyukov.

Due to the fact that at the Site Kostyukov. waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Kolodezsk.

Description	Repository for disposal of decontamination waste (type 2) - DWR-2 "Kolodezskoe"

Disposal part of the "Kolodezsk." facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	30000
Depth (m)	4		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
site selection		1986	1986
design		1986	1987
construction		1987	1987
commissioning		1987	1987
operation		1987	

Comment #14926: Disposal Facility Kolodezsk. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Radon, Site Data: Kostyukov

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Kostyukovichi near surface repository

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Kolodezsk.	No	20965	0	0	0	0	0	100	0	Yes

Reporting Group Radon, Site Structure: Krasnopol

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Krasnopolie near surface repository

Location: Krasnopolie region of Mogilev province

License Holder(s) : Republican Unitary Specialized Enterprise "Radon"
29, Kaludzkaya str.
Mogilev

Comment #14927: Site Krasnopol. Data

Due to the fact that at the Site Krasnopol. waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Gatskovic

Description	Decontamination waste repository of the second type - DWR-II "Gatskovichi"

Disposal part of the "Gatskovic" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	30000
Depth (m)	4		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
site selection		1986	1986
design		1986	1987
construction		1987	1987
commissioning		1987	1987
operation		1987	

Comment #14928: Disposal Facility Gatskovic. Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Radon, Site Data: Krasnopol

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Krasnopolie near surface repository

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Gatskovic	No	12300	0	0	0	0	0	100	0	Yes

Reporting Group Radon, Site Structure: Slavgorod

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Slavgorod near surface repository

Location: Slavgorod region of Mogilev province

License Holder(s) : Republican Unitary Specialized Enterprise "Radon"
29, Kaludzkaya str.
Mogilev

Comment #14929: Site Slavgorod Data

Due to the fact that at the Site Slavgorod waste inventory information is available only in kilograms not in cubic meters, all data are calculated for material density 2000 kilograms per cubic meter.

The following list the waste management facilities that are located at this site.

Facility: Kulikovka

Description	Decontamination waste repository of the second type - DWR-II "Kulikovka"

Disposal part of the "Kulikovka" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
DWT	Yes	Yes	DWI	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	38000	Capacity -planned (m3)	38000
Depth (m)	4		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
site selection		1986	1986
design		1986	1987
construction		1987	1987
commissioning		1987	1987
operation		1987	2000

Comment #14930: Disposal Facility Kulikovka Data

These data are calculated for material density 2000 kilograms per cubic meter.

Reporting Group Radon, Site Data: Slavgorod

Country: Belarus, Republic of Reporting Year: 2006

Full Name: Slavgorod near surface repository

Inventory Reporting Date: December 2006 Waste Matrix: ChernDW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
DWT	Disposal Kulikovka	No	28102	0	0	0	0	0	100	0	Yes

REGULATORS

Country: Belarus, Republic of Reporting Year: 2006

Name	Promatom
Full Name	Department for Regulation of Industrial and Nuclear Safety of the Ministry for Emergency Situations of the Republic of Belarus (Promatomnadzor)
Division	Division for Supervision and Regulation of Nuclear and Radiation Safety
City or Town	Minsk

Name	RCHE
Full Name	Republican Center of Hygiene and Epidemiological Service under Ministry of Health
Division	Division of Radiation Hygiene
City or Town	Minsk

REGULATIONS / LAWS

Country: Belarus, Republic of Reporting Year: 2006

Name	RadSafeLaw	
Title or Name	Law on Radiation Safety of Public (as amended by Law No. 72-3 21.12.2005)	
Reference Number	122-3	
Date Promulgated or Proclaimed	1998-01-05	Law

Comment #183: Law on Radiation Protection of Population

The Law defines the basis for legal regulation in the area of radiation protection of the public and is intended for creation of conditions ensuring protection of life and health of people against harmful effects of ionising radiation.
It introduces the principles of norm-setting, justification and optimisation in ensuring radiation safety (article 3) and establishes basic hygienic standards (acceptable dose limits) of radiation exposure in the territory of Belarus which occurs as a result of using ionising radiation sources (article 8), in particular:
- the average annual effective dose for population is 0.001 Sv or the effective dose for life (70 years) is 0,07 Sv;
- the average annual effective dose for personnel is 0.02 Sv or the effective dose for the whole period of work (50 years) is 1 Sv

which corresponds to the international standards.

The Law defines:
· Functions of the state in the field of radiation safety;
· General requirements for radiation safety assurance, including those for radioactive waste and radiation emergency;
· Rights and duties of people and public associations in the field of radiation safety;
· Liability for non-observance of the requirements concerning radiation safety, including safety of radiactive waste management, etc.
In particular, the Law says that any activity involving the use and disposal of ionising radiation sources shall only be performed if prior authorisation is given by the competent state authority.

Name	SanLaw	
Title or Name	Law on Sanitary and Epidemic Well-being of Public (as amended by Law No. 397-3 23.05.2000)	
Reference Number	2583-XІІ	
Date Promulgated or Proclaimed	1993-11-23	Law

Comment #184: Law

Law on Sanitary and Epidemic Well-being of Public defines the sphere of competence of state governing and control bodies, the responsibilities of economic entities in relation to observance of sanitary norms and regulations as well as undertaking of sanitary-hygienic and radiation protection measures. It says that production, use, storage, transportation of ionising radiation sources and disposal of radioactive substances are only allowed with prior authorisation of these kinds of activities obtained from state sanitary control authorities and other empowered bodies. All cases of violation of radiation safety standards in working with radioactive materials are subject to investigation with obligatory participation of executives exercising technical and sanitary control on behalf of the state

REGULATIONS / LAWS

Country: Belarus, Republic of Reporting Year: 2006

Name	ChernLaw	
Title or Name	Law on Legal Status of the Territories Contaminated as a Result of the Accident at the Chernobyl Nuclear Power Plant (as amended by Law No. 134-3 24.07.2002)	
Reference Number	1227-XІІ	
Date Promulgated or Proclaimed	1991-11-12	Law

Comment #186: Law on Legal Status

Law on Legal Status of the Territories Contaminated as a Result of the Accident at the Chernobyl Nuclear Power Plant establishes the legal status of the territories of the Republic of Belarus contaminated as a result of the Chernobyl Accident, and is aimed at the reduction of radiation influence at the population and the ecological systems, at conducting recovery and protection arrangements, at the natural, economic and scientific resources conservation of these territories. The Law regulates the status of the radioactively contaminated territories, the conditions of residence and carrying out the economical, research and other activities on these territories.

Name	AdmLaw	
Title or Name	Administrative Code (as amended by Law No. 321-3 05.01.2008)	
Reference Number	194-3	
Date Promulgated or Proclaimed	2003-04-21	Law

Comment #188: Administrative Code

The Administrative Code has the following articles:

Article 531 .Violation of safety rules of management of substances and waste posing danger to the environment – fine of up to 50 minimal salaries for citizens and 100 – for officials.
Article 1711 . Violation of radiation control rules – fine of up to 3 minimal salaries.

Name	Post/L-nse	
Title or Name	On licensing activities carried out by economic subjects	
Reference Number	456	
Date Promulgated or Proclaimed	1995-08-21	Regulation

Comment #191: The Ordinance on licensing

The regulation “On licensing activities carried out by economic subjects” prescribes a license procedure for specific activities related to transportation, storage and disposal of radioactive waste.

Name	Post/Nadz	
Title or Name	Ordinance "On the state control over safe conduct of work in industry and atomic power engineering"	
Reference Number	572	
Date Promulgated or Proclaimed	1995-10-13	Regulation

Comment #192: Ordinance "On the state control ..."

The Ordinance "On the state control over safe conduct of work in industry and atomic power engineering" which has been approved by special Governmental resolution empowers Promatomnadzor to exercise state technical control over nuclear and radiation-hazardous production facilities, objects, installations using radioactive materials and radiation sources in their activities, and installations performing processing and disposal of radioactive waste.

Name	OSP-2002	
Title or Name	Basic Sanitary Rules for Radiation Safety (OSP-2002)	
Reference Number	SanPiN 2.6.1.8-8-2002	
Date Promulgated or Proclaimed	2002-02-22	Regulation

Comment #193: OSP 72/87

OSP 72/87 is one of the normative documents of the former USSR which have been in force so far. It has a special section on management of solid and liquid radioactive waste.
New Basic radiation safety regulations for work with ionizing radiation sources are being drafted to meet the requirements of the new national standards (NRB-2000) and the international standards.

Name	SPORO-2005	
Title or Name	Sanitary Rules for Radioactive Waste Management (SPORO-2005)	
Reference Number	SanPIN 2.6.6.11-7-2005	
Date Promulgated or Proclaimed	2005-04-07	Regulation

Comment #194: SPORO-85/SPORO-2005

SPORO-85 were one of the former USSR regulations which have been in force so far. It includes general requirements on safety collection, storage, transportation, processing and disposal of radioactive waste arisen from use of radioactive materials and other radiation sources in medicine, industry and research.

SanPiN 2.6.6.11-7-2005 Sanitary Rules for Radioactive Waste Management (SPORO-2005). The Rules contain radioactive waste classification, main principles of RW management, radiation safety criteria for RW management, basic requirements for the safety of public and personnel at all stages of RW management (collection, storage, transport, processing, disposal).

REGULATIONS / LAWS

Country: Belarus, Republic of | Reporting Year: 2006

Name	SPOOD-2004	
Title or Name	Sanitary Rules for Chernobyl NPP Decontamination Waste Management (SPOOD-2004)	
Reference Number	SanPIN 2.6.6.8-8-2004	
Date Promulgated or Proclaimed	2004-11-23	Regulation

Comment #195: SPOOD-98/SPOOD-2004

SPOOD-98 were designed for regulation of a 'special' group of waste (ChernDW) which are formed as a result of work to eliminate the consequences of the Chernobyl accident and which contain more than 0.96 kBq/kg of Cs-137 (for solid waste).
The SPOOD-98 requirements were formulated taking into account waste peculiarities, situation developed on "emergency" storage sites, and predictive estimates of nuclides migration from those sites, based on the results of radioecological monitoring. In view of regulatory requirements, all the Chernobyl decontamination waste repositories (DWR) were classified under three different categories, each requiring a separate approach towards their maintenance and operation conditions, regulatory control and selection of disposal technologies.
The SPODO-98 contained regulations on waste collection, temporary storage, transportation, inventory taking, radiological and technical control for all stages of handling this waste category. Measures for individual protection of personnel are also covered.

SanPiN 2.6.6.8-8-2004 Sanitary Rules for Chernobyl NPP Decontamination Waste Management (SPOOD-2004).
The rules contain requirements for radiation safety of personnel and environmental protection while managing decontamination waste and the requirements for decontamination waste disposal facilities.

Name	NRB-2000	
Title or Name	Basic Radiation Safety Standards (NRB-2000)	
Reference Number	GN 2.6.1.8.-127-2000	
Date Promulgated or Proclaimed	2000-04-19	Regulation

Comment #196: NRB-2000

New Radiation Safety Standards NRB - 2000 have been developed on the basis of the Russian standards NRB-1999 and the International Basic Safety Standards (IAEA Safety Series 115). These standards represent the requirements for radiation safety of human in all conditions of influence of ionizing radiation of natural and man-caused origin, basic dose limits, acceptable levels of influence of ionizing radiation and other requirements for limitation of human's exposure.

MILESTONES

Country: Belarus, Republic of Reporting Year: 2006

Start Year or Reference Year:	1977	End Year	1977

Description of Milestone

The first reconstruction of the Radioactive Waste management Facility under “Ekores" enterprise (RWF “Ekores”) was completed. The site, which before reconstruction had consisted of 2 simple concrete lined trenches only, was provided with laundry for cloth decontamination, garage for transport vehicles, 2 below surface, reinforced concrete vaults for solid radioactive waste and 4 bore holes for spent sealed sources storage

Start Year or Reference Year:	1986	End Year	1991

Description of Milestone

Owing to contamination of the 23% of Belarus territory by Chernobyl fallout the tasks of safety management of so-called “Chernobyl wastes”, generated in the course of clean-up, economic and other human activities in the contaminated territory became highly acute. The waste consisting of removed soil, roofing slate, boards, household articles, domestic garbage, structural elements was put into 82 interim storage sites, arranged mostly in ‘natural’ locations (ravines, sand pits, foundation pits, trenches, etc.)In this period eight repositories were constructed from type designs in the abandoned areas specially for Chernobyl waste storage

Start Year or Reference Year:	1992	End Year	1995

Description of Milestone

The national regulatory regime was set up, resulting in establishing adequate control and supervision for the management of all type waste, including “Chernobyl waste”.
Within framework of the State Chernobyl Program, examination and inventory-taking of the sites packed with Chernobyl waste were carried out .

Start Year or Reference Year:	1997	End Year	

Description of Milestone

The project for the second Ekores facility reconstruction was launched by Belarus Government.The design included construction of some new repositories for spent sources storage, vaults for radioactive waste disposal and premises for radioactive waste sorting and conditioning.

Start Year or Reference Year:	1998	End Year	2000

Description of Milestone

A number of the Governmental normative acts were developed to create an adequate legal basis for safety radioactive waste management. The most important ones were the Law of the Republic of Belarus “On radiation safety of public” (1998) and the Governmental Resolution to amend the Regulation “On licensing activities carried out by economic subjects” (1999), which improved the authorisation regime for the activities involving management of radioactive waste.

The Law ‘On legal treatment of territories contaminated as a result of the Chernobyl NPP catastrophe’ enacted in 1991 was appropriately amended and special Regulation ‘Provisional sanitary rules for the management of decontamination waste of the Chernobyl origin’ (SPOOD-98) were put in force.

Start Year or Reference Year:	2000	End Year	

Description of Milestone

An advanced strategy for the Ekores facility reconstruction was developed due to great pressure of public opinion. The strategy states that the Ekores facility is regarded as the facility for long storage of waste, not for its disposal. All the wastes at the Ekores vaults should be identified, conditioned, packaged and labelled to assure that the waste storage conditions meet updated safety requirements.

Policies

Country: Belarus, Republic of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

Comment #204: Policy

Belarus has partly implemented a national policy for management and regulation of radioactive waste though the policy is not formalised in any single document. Radioactive waste management is performed in the framework of the overall state radiation safety infrastructure. On the whole, Belarus radioactive waste management system meets the requirements set forth in the IAEA document ¹111-S-1 «Establishing a National System for Radioactive Waste Management», although certain elements have not been adequately developed. In the first place, this concerns financing structure and the mechanism of allocation of resources needed for neutralization of waste arising from using sources in the national economy.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

Comment #206: Strategy

A document, named “Strategy for Radioactive Waste Management in Belarus” has been approved by the National Comission on Radiaion Protection and submitted to the Government for resolution. The document addresses main problematic issues in the field of radioactive management and is considered to be a basis for the development of a National Program of Radioactive Waste Management. The strategy provides for the following steps to be taken:

– preparation of legislative acts, including a basic law, revision and development of normative and technical documents with due regard to international standards;
– development and implementation of the funding mechanism for the whole waste management cycle;
– creation of a state data bank (register) containing characteristics of waste storage and disposal sites, including those for decontamination waste of Chernobyl origin;
– rehabilitation of the Ecores disposal facility (safety analysis, introduction of modern technologies, segregation and packaging of waste retrieved from ‘old’ disposal sites)
– development of new technologies;
– construction of a new national waste disposal facility;
– taking measures to ensure long-term safety of all the waste storage/disposal sites;

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Partially
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes

Policies

10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	No
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)
Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.		
Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	No
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	not answered
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	not answered
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	not answered

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - Some
42	Performance Assessment (PA)	Yes - Some
43	Quality Assurance (QA)	No
44	Safety Assessment (SA)	Yes - Some

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes

63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	No
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	not answered
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	not answered

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	Yes
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	Yes

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Comment #207: Waste import regulation

Law «On the legal regime of the territories contaminated as a result of the Chernobyl NPP accident” prohibits acceptance of radioactive waste from abroad except of the waste resulting from the services rendered to Belarus by the states under contractual obligations.

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	No

	Facilities	(Yes;No)

Policies

Country: Belarus, Republic of **Decommissioning** Reporting Year: 2006

106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for
Belgium
Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

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Waste Class Matrix(ces) Used/Defined

Country: Belgium, Kingdom of

Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: NIRAS

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Category A	100	0	0
Category B	0	100	0
Category C	0	85.9	14.1
Category R	100	0	0

Description: This Matrix outlines the link between the classification scheme of conditioned radioactive waste, as developed by ONDRAF/NIRAS (the Belgian National Agency for Radioactive Waste and Enriched Fissile Materials) and the Agency's proposed scheme.

Attachment #1267: This document outlines the link between the classification scheme of conditioned radioactive waste, as developed by ONDRAF/NIRAS, and the Agency's proposed scheme.

File name: IAEA NEWMDB WASTEMATRIX 17OCT05.doc

File type: MS Office Document

Member State's Reference # 2001-3597 (revision 1)

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Belgium, Kingdom of Reporting Year: 2006

Reporting Group: **FOREIGN**

Inventory Reporting Date: December 2006

Waste Matrix Used: NIRAS

Description: Belgian radioactive waste stored outside Belgium.

Site Name	Facility Name	Facilities Defined		
ForeignRP	AREVA	processing		
	UKAEA	processing		

Reporting Group: **NIRAS**

Inventory Reporting Date: December 2006

Waste Matrix Used: NIRAS

Description: The Belgian National Agency for Radioactive Waste Management and Enriched Fissile Materials, NIRAS, manages all radioactive category A, B and C waste in Belgium and has an industrial branch, namely Belgoprocess, with 2 sites in Dessel, Belgium.

Umicore is an industrial company which produced category R-waste.

Site Name	Facility Name	Facilities Defined		
BP1	CILVA	processing		
	EUROBIT	processing		
	PAMELA	processing		
	B110X	processing	storage	
	B103		storage	
	B104		storage	
	B127		storage	
	B129		storage	
	B136		storage	
	B150		storage	
	B151		storage	
	B153		storage	
	B155		storage	
	B156		storage	
BP2	B280X	processing		
	KWB/BRE	processing		
	MUMMIE	processing		
	PYROLYSIS	processing		
	B270M		storage	
UMICORE	OPL		storage	

Groups Overview

Country: Belgium, Kingdom of Reporting Year: 2006

Reporting Group: **SEA_DUMP**

Inventory Reporting Date: December 2006

Waste Matrix Used: NIRAS

Description: This group reflects the inventory of Belgian radioactive waste disposals at sea, carried out during the period 1960-1982.

Site Name	Facility Name	Facilities Defined		
SEA_DUMP	SEA_DUMP			disposal

Reporting Group FOREIGN, Site Structure: ForeignRP

Country: Belgium, Kingdom of

Reporting Year: 2006

Full Name: Foreign Reprocessing and Waste Treatment Plants

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: AREVA

Description	AREVA Group, (formerly Cogema), Cap de la Hague, France

Processing part of the "AREVA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	Yes	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	, Unknown

Facility: UKAEA

Description	UKAEA, Dounreay, United Kingdom

Processing part of the "UKAEA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	Yes	No	Category B	Yes	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	, Unknown

Reporting Group FOREIGN, Site Data: ForeignRP

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Foreign Reprocessing and Waste Treatment Plants

Inventory Reporting Date: December 2006 Waste Matrix: NIRAS

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category A	Storage UKAEA	No	9.197	0	0	100	0	0	0	0	No
Category B	Storage UKAEA	No	18.358	0	0	100	0	0	0	0	No
Category C	Storage AREVA	Yes	15.12	0	0	100	0	0	0	0	No

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Vitrification			decrease	

Reporting Group NIRAS, Site Structure: BP1

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Belgoprocess, site 1

Location: Belgoprocess N.V.
Gravenstraat 73
B-2480 Dessel
Belgium

License Holder(s) : Belgoprocess N.V.
Gravenstraat 73
B-2480 Dessel
Belgium

The following list the waste management facilities that are located at this site.

Facility: CILVA

Description	CILVA is Belgium's central facility for treatment and conditioning of solid and liquid LILW-SL.

Processing part of the "CILVA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1994

Facility: EUROBIT

Description	Eurobitumen is a facility for the treatment and conditioning of liquid, alpha bearing LILW-LL (i.e. sludge and evaporator concentrates) into bitumen.

Processing part of the "EUROBIT" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1978

Facility: PAMELA

Description	PAMELA is a former pilot plant for vitrification of high-level liquid waste until 1991, generated by the Eurochimic reprocessing plant. During the 1990's, it was heavily modified and is currently used for the conditioning of solid ILW-LL

Processing part of the "PAMELA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1981

Facility: B110X

Description	B110X is a new facility for the treatment and conditioning of solid (mostly alpha bearing) LLW-LL.

Processing part of the "B110X" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	2003

Storage part of the "B110X" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	Yes	No
Category C	No	No	Category R	No	No
SRS	Yes	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B110X	building	0	No	No	No	Yes

Comment #9915: Storage Facility B110X

SRS:38 alpha sources are stored in this building.

Facility: B103

Description	Building 103 is a storage facility for alpha contaminated unprocessed waste.

Storage part of the "B103" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	Yes	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B103	building	0	No	No	No	No

Facility: B104

Description	Building 104 is a storage facility for alpha contaminated unprocessed waste.

Storage part of the "B104" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	Yes	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B104	building	0	No	No	No	No

Facility: B127

Description	Building B127 is a storage facility for category B-waste in a bitumen or cement matrix. Bunkers A and B of this facility contain 220 liter drums; bunker C contains only 400 liter drums.

Storage part of the "B127" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	Yes	Yes	Category B	Yes	Yes
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Capacity	Total capacity is evaluated at 18.393 packages, the equivalent of some 4.650 m³ of conditioned waste.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B127A	bunker	1978	No	Yes	No	No
B127B	bunker	1978	No	No	No	No
B127C	bunker	1988	No	No	No	No

Facility: B129

Description	Building B129 is a storage facility for category C-waste other than the HLW produced during the abroad reprocessing of spent fuel. Bunker A contains containers of 60 liter; bunker B contains containers of 150 liter.

Storage part of the "B129" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	Yes	Yes	Category R	No	No
SRS	No	No			
List SRS?	No				

Capacity	Total capacity is evaluated at 2.572 packages, the equivalent of some 250 m³ of vitrified waste.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B129A	bunker	1985	No	No	No	No
B129B	bunker	1985	No	No	No	No

Facility: B136

Description	Building B136 is a storage facility for vitrified category C- (bunker 170) and sumpercompacted category C-waste (bunker 140/141) produced during the abroad reprocessing of spent fuel.

Storage part of the "B136" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	Yes	Yes	Category R	No	No
SRS	No	No			
List SRS?	No				
Capacity	Present total capacity is evaluated at 590 packages of vitrified waste (bunker 170: some 90 m³). Other capacities: see comments.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
140/141	bunker	2000	No	No	Yes	No
170	bunker	2000	No	No	Yes	No

Facility: B150

Description	Building 150 is a storage facility for category A-waste. This facility mainly contains 400 liter drums, but also packages of 500, 600, 1.000, 1.500, 1.600 and 2.200 liter.

Storage part of the "B150" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	Yes	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				
Capacity	Total capacity is evaluated at 3.424 packages, the equivalent of some 2.000 m³ of conditioned waste.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B150N	bunker	1986	No	Yes	No	No
B150C	bunker	1986	No	Yes	No	No
B150Z	bunker	1986	No	Yes	No	No

Facility: B151

Description	Building 151 is a storage facility for category A-waste. This building mainly contains 400 liter drums, but also packages of 220, 600, 1.000, 1.500 and 1.600 liter.

Storage part of the "B151" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	Yes	Yes	Category B	Yes	No
Category C	No	No	Category R	No	No
SRS	No	No			

List SRS?	No
Capacity	Total capacity is evaluated at 35.422 packages, the equivalent of some 14.300 m³ of conditioned waste.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B151A	bunker	1988	No	No	No	No
B151B	bunker	1988	No	Yes	No	No
B151C	bunker	1993	No	No	No	No
B151D	bunker	1993	No	No	No	No

Facility: B153

Description	Building 153 is a storage facility for alpha contaminated unprocessed waste.

Storage part of the "B153" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	Yes	No
Category C	No	No	Category R	No	No
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B153	building	0	No	No	No	No

Facility: B155

Description	Building B155 is a storage facility for alpha- and radiumcontaminated category B-waste.This building has been completed in 2003 and is operational since 2005.

Storage part of the "B155" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	Yes	Yes
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Capacity	Bunker LAGAL (plutonium contaminated waste): 2.000 m³ (i.e. 5.000 packages) Bunker RAGAL (radium contaminated waste): 2.000 m³ (i.e. 5.000 packages)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LAGAL	bunker	0	No	No	Yes	No
RAGAL	bunker	0	No	No	Yes	No

Facility: B156

Description	Building 156 is a purpose designed storage facility for irradiated fuel coming from the reactor BR3. This irradiated fuel is loaded into CASTOR containers, each container holding 30 fuel assemblies.

Storage part of the "B156" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	Yes	Yes	Category R	No	No
SRS	No	No			
List SRS?	No				

Capacity	Total capacity of buidling 156 consists of 8 CASTOR containers.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B156	building	2001	No	No	No	No

Reporting Group NIRAS, Site Data: BP1

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Belgoprocess, site 1

Inventory Reporting Date: December 2006 Waste Matrix: NIRAS

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category A	Storage B150	Yes	1913	76	0	0	6	0	18	0	No
Category A	Storage B151	Yes	11236	32	0	0	52	0	16	0	No

Comment #9902: Waste Storage facilities/Class Category A/Site BP1

The noticeable decrease in the amount of unprocessed waste (reporting year 2003: 3.297 m³; reporting year 2004: 0 m³) is due to the fact that waste in "interim storage" has been omitted from the current submission.

Class	Location Facility	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category B	Storage B103	No	400	0	80	0	6	0	14	0	No
Category B	Storage B104	No	114	0	49	0	0	0	51	0	No
Category B	Storage B110X	No	401	0	37	0	10	0	53	0	No
Category B	Storage B153	No	658	0	0	0	5	0	95	0	No
Category B	Storage B127	Yes	3976	21	0	76	3	0	0	0	No
Category B	Storage B155	Yes	260	0	100	0	0	0	0	0	No
Category C	Storage B129	Yes	215	0	0	91	0	0	9	0	No
Category C	Storage B136	Yes	50	0	0	100	0	0	0	0	No

Comment #9899: Waste Storage facilities/Class Category C/Site BP1

Building 156: 7 CASTOR containers are stored in this building. Each CASTOR contains 30 irradiated fuel assemblies, unloaded from the Belgian Reactor 3 (BR3), Belgium's first PWR which was shut down in 1987. Decommissioning of BR3 is nearing completion.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Incineration			same	
Size Reduction			same	
Super Compaction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	
Vitrification				Yes

Reporting Group NIRAS, Site Structure: BP2

Country: Belgium, Kingdom of | Reporting Year: 2006

Full Name:	Belgoprocess, site 2
Location:	Gravenstraat 73 B-2480 Dessel Belgium
License Holder(s) :	Belgoprocess N.V. Gravenstraat 73 B-2480 Dessel Belgium

The following list the waste management facilities that are located at this site.

Facility: B280X

Description	B280X is a new treatment- and conditioning facility for solid, radium contaminated LILW.

Processing part of the "B280X" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	2003

Facility: KWB/BRE

Description	KWB/BRE is a treatment- and conditioning facility for liquid LLW-SL. This waste is conditioned into a bitumen matrix.

Processing part of the "KWB/BRE" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1980

Facility: MUMMIE

Description	MUMMIE is a treatment- and conditioning facility for liquid LLW-SL and liquid LLW-LL. This waste is conditioned into a bitumen matrix.

Processing part of the "MUMMIE" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1969

Facility: PYROLYSIS

Description	The pyrolysis installation decomposes alpha contaminated organic liquids, originally generated by the former Eurochemic reprocessing plant and cements the remaining solid waste.

Processing part of the "PYROLYSIS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1999

Facility: B270M

Description	Building 270M is a temporary storage facility for radium contaminated category B-waste. It will be replaced by a new facility in the near future (see B155, BP1-site).

Storage part of the "B270M" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	Yes	No	Category B	Yes	No
Category C	No	No	Category R	No	No
SRS	Yes	No			
List SRS?	No				
Capacity	Total capacity is evaluated at 4.899 packages.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
B270M	building	1980	Yes	No	No	Yes

Comment #9914: Storage Facility B270M

SRS:274 SRS are stored in this building: 5 "multiple" sources, 2 neutron sources, 149 radium sources, 86 gamma sources, 17 bèta sources and 15 alpha sources.

Reporting Group NIRAS, Site Data: BP2

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Belgoprocess, site 2

Inventory Reporting Date: December 2006 Waste Matrix: NIRAS

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category B	Storage B270M	Yes	301	1	0	0	11	2	36	50	Yes

Comment #9903: Waste Storage facilities/Class Category B/Site BP2

The increase in the amount of unprocessed waste (reporting year 2003: 311 m³; reporting year 2004: 676 m³) is due to the fact that a fraction of this waste has been reclassified from category A to category B.

Waste Class	Status
Category A (in Storage)	Waste data available, will not be reported.

Comment #9904: Waste Storage facilities/Class Category A/Site BP2

The decrease in the amount of unprocessed waste (reporting year 2003: 3.825 m³; reporting year 2004: 3 m³) is due to the fact that waste in "interim storage" has been omitted from the current submission.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Size Reduction			increase	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation	Yes			

Reporting Group NIRAS, Site Structure: UMICORE

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Umicore N.V.

Location: Watertorenstraat 33
B-2250 Olen
Belgium

License Holder(s) : UMICORE N.V.
Broekstraat 31
B-1000 Brussels
Belgium

The following list the waste management facilities that are located at this site.

Facility: OPL

Description	OPL stands for the Dutch word "OPsLagplaats", which simply means storage facility. At present, it is considered by Umicore as a DISPOSAL facility, but the necessary licences are not yet acquired.

Storage part of the "OPL" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	No	No	Category B	No	No
Category C	No	No	Category R	Yes	No
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
OPL	bunker	1984	Yes	Yes	No	No

Reporting Group NIRAS, Site Data: UMICORE

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Umicore N.V.

Inventory Reporting Date: December 2006 Waste Matrix: NIRAS

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category R	Storage	No	45000	0	0	0	100	0	0	0	Yes

Reporting Group SEA_DUMP, Site Structure: SEA_DUMP

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Disposal sites of Belgian radioactive waste in the North Atlantic Ocean

Location: Coordinates of disposal sites are indicated in Annex A.1 of IAEA TECDOC-1105 "Inventory of radioactive waste disposals at sea", August 1999.

License Holder(s) : not applicable

The following list the waste management facilities that are located at this site.

Facility: SEA_DUMP

Description	Disposal sites of Belgian radioactive waste in the North Atlantic Ocean.

Disposal part of the "SEA_DUMP" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category A	Yes	No	Category B	No	No
Category C	No	No	Category R	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No

Type	sea dumping (deep sea disposal)

Depth (m)	65-5200	
Host medium	unknown (site not selected)	

Phase	Estimate	Start Year	End Year
operation	Yes	1960	1982

Reporting Group SEA_DUMP, Site Data: SEA_DUMP

Country: Belgium, Kingdom of Reporting Year: 2006

Full Name: Disposal sites of Belgian radioactive waste in the North Atlantic Ocean

Inventory Reporting Date: December 2006 Waste Matrix: NIRAS

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category A	Disposal	Yes	15765	50	0	0	50	0	0	0	No

REGULATORS

Country: Belgium, Kingdom of

Reporting Year: 2006

Name	Interior
Full Name	Ministry of the Interior
Division	Ministry of the Interior
City or Town	Brussels

Name	State
Full Name	State Secretary for Energy and Sustainable Development
Division	State Secretary for Energy and Sustainable Development
City or Town	Brussels

REGULATIONS / LAWS

Country: Belgium, Kingdom of Reporting Year: 2006

Name	08081980	
Title or Name	Law of 8th August, 1980, outlining the organisation, funding and core business of ONDRAF/NIRAS.	
Reference Number	08081980	
Date Promulgated or Proclaimed	1980-08-08	Law

Name	11011991	
Title or Name	Law of 11th January, 1991, replacing the Law of 8th August 1980, outlining the organisation, funding and core business of ONDRAF/NIRAS.	
Reference Number	11011991	
Date Promulgated or Proclaimed	1991-01-11	Law

Name	16101991	
Title or Name	Royal Decree of 16th Octobre, 1991 modifying the Law of 11th January 1990, outlining the organisation, funding and core business of ONDRAF/NIRAS.	
Reference Number	16011991	
Date Promulgated or Proclaimed	1991-10-16	Law

Name	12121997	
Title or Name	Law of 12th December 1997, article 9: "Inventory of Nuclear Liaibilities", outlining the mission of ONDRAF/NIRAS to develop and maintain an inventory of nuclear liabilities.	
Reference Number	12121997	
Date Promulgated or Proclaimed	1997-12-12	Law

Name	30122001	
Title or Name	Law of 30th December 2001, articles 87 up to 94, regarding the funding of the development of the inventory of nuclear liabilities	
Reference Number	30122001	
Date Promulgated or Proclaimed	2001-12-30	Law

REGULATIONS / LAWS

Country: Belgium, Kingdom of Reporting Year: 2006

Name	15042003	
Title or Name	Law regarding the build up of financial provisions for the decommissioning of nuclear power plants and the management of nuclear fuel, irradiated in these nuclear power plants.	
Reference Number	15042003	
Date Promulgated or Proclaimed	2003-04-15	Law

Name	18112002	
Title or Name	Law of 18th November 2002, regarding the qualification of radiological characterisation methods, processing methods and primary packages by ONDRAF/NIRAS.	
Reference Number	18112002	
Date Promulgated or Proclaimed	2002-11-18	Law

MILESTONES

Country: Belgium, Kingdom of | Reporting Year: 2006

Start Year or Reference Year:	1922	End Year	1986
Description of Milestone			
Umicore opens a refinery in Sint-Jozef-Olen, Belgium. For years, the factory is the world's largest producer of radium.			

Start Year or Reference Year:	1952	End Year	
Description of Milestone			
The Research Centre for Nuclear Energy Application is founded, later renamed the Nuclear Research Centre. The Nuclear Research Centre's site in Mol houses two research reactors and has a staff of 700.			

Start Year or Reference Year:	1959	End Year	1978
Description of Milestone			
Eurochemic's experimental spent nuclear fuel reprocessing plant is commissioned in Dessel, Belgium.			

Start Year or Reference Year:	1963	End Year	1987
Description of Milestone			
The PWR BR3 (Belgian Research 3) commences operations. It is operated by the Nuclear Research Centre on its Mol-site. The BR3 is the first operational PWR in Western Europe. The operational era of the BR3 ends in 1987. It is the first PWR that is to be decommissioned in Western Europe.			

Start Year or Reference Year:	1966	End Year	
Description of Milestone			
The Belgian government gives the go-ahead for the construction of the first commercial nuclear power plants at Doel and Tihange.			

Start Year or Reference Year:	1975	End Year	
Description of Milestone			
The PWR's Doel 1 (392,5 MW), Doel 2 (392,5 MW) and Tihange 1 (870 MW) commence operations.			

Start Year or Reference Year:	1975	End Year	
Description of Milestone			
The first commercial nuclear power plants are commissioned in Doel and Tihange. There are now seven reactors in operation, all of the PWR-type.			

Start Year or Reference Year:	1978	End Year	
Description of Milestone			
Since 1978 great progress has been made in research on deep disposal of radioactive waste, thanks to the HADES underground laboratory at Mol.			

Start Year or Reference Year:	1980	End Year	
Description of Milestone			
ONDRAF/NIRAS, the Belgian National Agency for Radioactive Waste Management and Enriched Fissile Materials, is established by law in 1980.			

Start Year or Reference Year:	1982	End Year	
Description of Milestone			
The PWR Doel 3 (900 MW) commences operations.			

Start Year or Reference Year:	1983	End Year	
Description of Milestone			
The PWR Tihange 2 (900 MW) commences operations.			

MILESTONES

Country: Belgium, Kingdom of Reporting Year: 2006

Start Year or Reference Year:	1985	End Year	
Description of Milestone			
The PWR's Doel 4 (980 MW) and Tihange 3 (980 MW) commence operations. They represent the final units of the Belgian fleet of nuclear power plants.			

Start Year or Reference Year:	1986	End Year	
Description of Milestone			
Building 150, the first Belgian purpose-designed storage facility for category A-waste, is put into operation on the Belgoprocess-site.			

Start Year or Reference Year:	1986	End Year	
Description of Milestone			
Since 1986, ONDRAF/NIRAS has used its subsidiary Belgoprocess N.V. in Mol-Dessel for processing and interim storage of radioactive waste and decommissioning of nuclear facilities.			

Start Year or Reference Year:	1994	End Year	
Description of Milestone			
CILVA, a solid and liquid low level waste processing plant, is commissioned on the Belgoprocess site.			

Start Year or Reference Year:	2000	End Year	
Description of Milestone			
The first transport of vitrified waste, arising from the abroad reprocessing of Belgian spent fuel, arrives at the Belgoprocess site in Mol-Dessel and is stored in building 136, a purpose-designed facility for the storage of category B- and category C-waste.			

Start Year or Reference Year:	2001	End Year	
Description of Milestone			
EIG EURIDICE is the joint venture set up by ONDRAF/NIRAS and the Nuclear Research Centre to implement the PRACLAY programme. PRACLAY is a demonstration programme designed to prove the technical feasability of disposing of category B- and category C-waste in deep clay layers.			

Start Year or Reference Year:	2002	End Year	
Description of Milestone			
Building 156, a purpose-designed facility for the dry storage of irradiated fuel elements used by the PWR BR3, is put into operation on the Belgoprocess-site in Dessel..			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
On 23rd June 2006, the Belgian Government approves of surface disposal as the final solution for Belgium's low and intermediate level short-lived waste.			

Policies

Country: Belgium, Kingdom of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	

24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All

Policies

Country: Belgium, Kingdom of | **Disposal Facilities** | Reporting Year: 2006

42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes

Policies

Country: Belgium, Kingdom of **Processing/Storage** Reporting Year: 2006

109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
110	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	Yes
112	Currently, are there any wastes (processed or unprocessed, including the products of reprocessing) or spent fuel from another country being stored in your country?	Yes
113	Will some or all of the the product(s) of processing/reprocessing be returned to the country of origin?	Yes
114	Does the inventory you reported to the NEWMDB for your country include radioactive wastes that originated in another country or that were generated as a result of processing/reprocessing radioactive waste/spent fuel that orginated in another country?	Yes

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No

90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for

Brazil

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-25 14:49:09

Waste Class Matrix(ces) Used/Defined

Country: Brazil, Federative Republic of | Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #383: Usage Specification

Usage is specified in the brazilian standard
Norma Técnica CNEN-NN-6.09 "Critérios de Aceitação para Deposição de Rejeitos Radioativos de Baixo e Médio Níveis de Radiação", approved on september 23rd 2002

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	**X**			
processed		**X**	**X**	**X**

Groups Overview

Country: Brazil, Federative Republic of Reporting Year: 2006

Reporting Group: **CNEN**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Comissão Nacional de Energia Nuclear

Site Name	Facility Name	Facilities Defined		
CDTN	CDTN_STR	processing	storage	
CRCN-CO	GCC			disposal
	GR			disposal
IEN	IEN_STR	processing	storage	
IPEN	IPEN_STR	processing	storage	

Reporting Group: **ETN**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Eletrobrás Termonuclear S.A.

Site Name	Facility Name	Facilities Defined		
Angra I	Facility 1	processing		
Angra II	Facility 2	processing	storage	
DIRR	Facility 3		storage	

Reporting Group CNEN, Site Structure: CDTN

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Centro de Desenvolvimento da Tecnologia Nuclear

Location: Rua Prof. Mário Werneck s/nº
Belo Horizonte - MG - Brasil
CEP 30123-970

License Holder(s) : certified facility (safety assessment required)
Operating organization:
Centro de Desenvolvimento da Tecnologia Nuclear
Rua Prof. Mário Werneck s/nº
Belo Horizonte - MG - Brasil
CEP 30123-970

The following list the waste management facilities that are located at this site.

Facility: CDTN_STR

Description	cementing laboratory for immobilizing radioactive liquid waste and testing product quality, bitumization laboratory for tests and a compression equipment for compressible wastes. One hot cell for the dismantling of lightning rods.

Processing part of the "CDTN_STR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	1970, Estimate

Storage part of the "CDTN_STR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			
List SRS?	No				
Capacity	CONCRETE SILO WITH 5.048 SPENT SOURCES AND A TOTAL VOLUME OF 97.3 CUBIC METERS AND A TOTAL ACTIVITY OF 7,6 TBq				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
STR_1	building	1970	No	No	No	Yes

Reporting Group CNEN, Site Data: CDTN

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Centro de Desenvolvimento da Tecnologia Nuclear

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	28	0	0	0	100	0	0	0	Yes
LILW-SL	Storage	Yes	2	0	0	0	100	0	0	0	Yes
LILW-LL	Storage	No	12.5	0	44	0	56	0	0	0	Yes
LILW-LL	Storage	Yes	15.8	10.1	68.4	0	21.5	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Compaction			same	
Decontamination			same	
Filtration			same	
Segregation/Sorting			same	
Shredding			same	
Size Reduction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	
Encapsulation			increase	
Solidification			same	

Reporting Group CNEN, Site Structure: CRCN-CO

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Centro Regional de Ciências Nucleares do Centro-Oeste

Location: BR 060, km 174,5
Abadia de Goiás - GO - Brasil
CEP 75345-000

License Holder(s) : certified facility (safety assessment required)
Operating organization:
Centro Regional de Ciências Nucleares do Centro-Oeste

The following list the waste management facilities that are located at this site.

Facility: GCC

Description	Great Capacity Container

Disposal part of the "GCC" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1525	Capacity -planned (m3)	1525
Depth (m)	4		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1990	1993
site selection		1991	1993
design		1994	1995
construction		1995	1995
commissioning		1991	1997
operation		1995	1997
closure		1997	1997
institutional control		1997	2047

Reporting Group CNEN, Site Structure: CRCN-CO

Country: Brazil, Federative Republic of Reporting Year: 2006

Facility: GR

Description	Goiânia Repository

Disposal part of the "GR" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1975	Capacity -planned (m3)	1975
Depth (m)	4		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1990	1993
site selection		1991	1993
design		1994	1996
construction		1996	1997
commissioning		1991	1997
operation		1997	1997
closure		1997	1997
institutional control		1997	2047

Reporting Group CNEN, Site Data: CRCN-CO

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Centro Regional de Ciências Nucleares do Centro-Oeste

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal GCC	Yes	1525	0	0	0	0	0	100	0	No
LILW-SL	Disposal GR	Yes	1975	0	0	0	0	0	100	0	No

Reporting Group CNEN, Site Structure: IEN

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Instituto de Engenharia Nuclear

Location: Cidade Universitária - Ilha do Fundão
Rio de Janeiro - RJ - Brasil

License Holder(s) : certified facility (safety assessment required)
Operating organization:
Instituto de Engenharia Nuclear
Cidade Universitária - Ilha do Fundão
Rio de Janeiro - RJ - Brasil
CEP 21941-590

The following list the waste management facilities that are located at this site.

Facility: IEN_STR

Description	Concrete building with 7560 spent sources equivalent of 114.9 cubic meters and a total activity of 7.6 TBq.

Processing part of the "IEN_STR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1970, Estimate

Storage part of the "IEN_STR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
STR_1	building	1970	No	No	No	Yes

Reporting Group CNEN, Site Data: IEN

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Instituto de Engenharia Nuclear

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	0.5	0	0	0	100	0	0	0	Yes
LILW-SL	Storage	Yes	48	0	0	0	100	0	0	0	Yes
LILW-LL	Storage	Yes	0.8	0	0	0	100	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			suspended	
Compaction			same	
Decontamination			same	
Filtration			suspended	
Ion Exchange			suspended	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			suspended	

Reporting Group CNEN, Site Structure: IPEN

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name:	Instituto de Pesquisas Energéticas e Nucleares
Location:	Travessa R, 400 - Cidade Universitária São Paulo - SP - Brasil
License Holder(s) :	certified facility (safety assessment required) Operating organization: Instituto de Pesquisas Energéticas e Nucleares Travessa R, 400 - Cidade Universitária São Paulo - SP - Brasil CEP 05508-900

The following list the waste management facilities that are located at this site.

Facility: IPEN_STR

Description	"Unidade Integrada de Tratamento e Armazenamento de Rejeitos" (UITAR). 5.450 spent sources storage equivalent of 350 cubic meters and a total activity of 543 TBq. Includes a hot cell for the dismantling of Am-241 lightning rods and a cementation system.

Processing part of the "IPEN_STR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1970, Estimate

Storage part of the "IPEN_STR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	Yes	Yes			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
STR_01	building	1970	No	No	No	Yes

Reporting Group CNEN, Site Data: IPEN

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Instituto de Pesquisas Energéticas e Nucleares

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	402	0	0	0	100	0	0	0	Yes
LILW-SL	Storage	Yes	221	0	0	0	100	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			intermittent	
Compaction			same	
Decontamination			intermittent	
Evaporation			suspended	
Filtration			same	
Ion Exchange			intermittent	
Segregation/Sorting			same	
Shredding and Compaction			intermittent	
Size Reduction			same	
Wastewater Treatment			intermittent	
Water/Acid Washing			intermittent	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			intermittent	
Containerization			same	
Encapsulation			suspended	
Macroencapsulation			intermittent	
Solidification			intermittent	

Reporting Group ETN, Site Structure: Angra I

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Central Nuclear Almirante Álvaro Alberto-CNAAA

Location: Rodovia Rio-Santos (BR-101), Km 522 (antigo Km 132)
Praia de Itaorna, CEP: 23900-000
Angra dos Reis - RJ

License Holder(s) : Eletronuclear - Eletrobrás Termonuclear S.A
Rua da Candelária, 65, Centro, RJ
CEP: 20091-020
Rio de Janeiro - RJ

The following list the waste management facilities that are located at this site.

Facility: Facility 1

Description	Angra I is a 650 MW PWR and initiated its operation in 1981

Processing part of the "Facility 1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1981

Reporting Group ETN, Site Data: Angra I

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Central Nuclear Almirante Álvaro Alberto-CNAAA

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Rinsing			same	
Segregation/Sorting			same	
Shredding and Compaction			same	
Super Compaction			intermittent	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Encapsulation			same	

Reporting Group ETN, Site Structure: Angra II

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name:	Central Nuclear Almirante Álvaro Alberto-CNAAA
Location:	Rodovia Rio-Santos (BR-101), Km 522 (antigo Km 132) Praia de Itaorna, CEP: 23900-000 Angra dos Reis – RJ
License Holder(s) :	Eletronuclear - Eletrobrás Termonuclear S.A Rua da Candelária, 65, Centro, RJ CEP: 20091-020 Rio de Janeiro - RJ

The following list the waste management facilities that are located at this site.

Facility: Facility 2

Description	Angra II is a 1.300 MW PWR and initiated its operation on January 2000

Processing part of the "Facility 2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	2000

Storage part of the "Facility 2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	Storage divided into two rooms. The first one is the low level waste room whose capacity is 276 cubic meters and the other one is the medium level waste room with capacity to 52.8 cubic meters .				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
KPE	building	2000	No	No	No	No

Reporting Group ETN, Site Data: Angra II

Country: Brazil, Federative Republic of — Reporting Year: 2006

Full Name: Central Nuclear Almirante Álvaro Alberto-CNAAA

Inventory Reporting Date: December 2006 — Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage Facility 2	Yes	22.2	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Rinsing			same	
Segregation/Sorting			same	
Shredding and Compaction			same	
Super Compaction			intermittent	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Encapsulation			same	

Reporting Group ETN, Site Structure: DIRR

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name:	Central Nuclear Almirante Álvaro Alberto-CNAAA
Location:	Rodovia Rio-Santos (BR-101), Km 522 (antigo Km 132) Praia de Itaorna, CEP: 23900-000 Angra dos Reis – RJ
License Holder(s) :	ETN

The following list the waste management facilities that are located at this site.

Facility: Facility 3

Description	Storage of low and intermediate level waste (spent resins, compressible waste, evaporator concentrate, etc)

Storage part of the "Facility 3" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			

List SRS?	No
Capacity	2375 cubic meters

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DIRR	building	1981	No	No	Yes	No

Reporting Group ETN, Site Data: DIRR

Country: Brazil, Federative Republic of Reporting Year: 2006

Full Name: Central Nuclear Almirante Álvaro Alberto-CNAAA

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	2050.6	100	0	0	0	0	0	0	No

REGULATORS

Country: Brazil, Federative Republic of

Reporting Year: 2006

Name	CNEN
Full Name	Comissão Nacional de Energia Nuclear
Division	Diretoria de Radioproteção e Segurança
City or Town	Rio de Janeiro

Name	IBAMA
Full Name	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis
Division	
City or Town	Brasília - DF

REGULATIONS / LAWS

Country: Brazil, Federative Republic of | Reporting Year: 2006

Name	REG_01	
Title or Name	CRITÉRIOS DE ACEITAÇÃO PARA DEPOSIÇÃO DE REJEITOS RADIOATIVOS DE BAIXO E MÉDIO NÍVEIS DE RADIAÇÃO	
Reference Number	Norma CNEN-NN-6.09	
Date Promulgated or Proclaimed	2002-09-23	Regulation

Comment #6856: Wastes that are regulated by the Regulation

Matrix IAEA Def. - LILW-SL

Name	LAW_01	
Title or Name	Lei nº 10.308, de 20.11.2001	
Reference Number	Lei 10.308	
Date Promulgated or Proclaimed	2001-11-20	Law

Comment #6857: Wastes that are regulated by the Law

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Comment #7514: Lei no. 10.308

Dispõe sobre a seleção de locais, a construção, o licenciamento, a operação, a fiscalização, os custos, a indenização, a responsabilidade civil e as garantias referentes aos depósitos de rejeitos radioativos, e dá outras providências.

Name	REG_02	
Title or Name	Gerência de Rejeitos Radioativos em Instalações Radiativas	
Reference Number	Norma CNEN-NE-6.05	
Date Promulgated or Proclaimed	1985-12-17	Regulation

Comment #6858: Wastes that are regulated by the Regulation

Matrix IAEA Def. - LILW-SL

Name	REG_03	
Title or Name	Seleção e Escolha de Locais para Depósitos de Rejeitos Radioativos	
Reference Number	Norma CNEN-NE-6.06	
Date Promulgated or Proclaimed	1990-01-24	Regulation

Comment #6859: Wastes that are regulated by the Regulation

Matrix IAEA Def. - LILW-LL, LILW-SL

REGULATIONS / LAWS

Country: Brazil, Federative Republic of Reporting Year: 2006

Name	REG_04	
Title or Name	Diretrizes Básicas de Radioproteção	
Reference Number	Norma CNEN-NE-3.01	
Date Promulgated or Proclaimed	1988-08-01	Regulation

Comment #6860: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Name	REG_05	
Title or Name	Transporte de Materiais Radioativos	
Reference Number	Norma CNEN-NE-5.01	
Date Promulgated or Proclaimed	1988-08-01	Regulation

Comment #6861: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Name	REG_06	
Title or Name	Radioproteção e Segurança para Deposição Final dos Rejeitos Radioativos Armazenados em Abadia de Goiás	
Reference Number	Instrução Técnica CNEN-IT-01	
Date Promulgated or Proclaimed	1990-12-01	Regulation

Comment #6862: Wastes that are regulated by the Regulation

Matrix IAEA Def. - LILW-SL

Name	REG_07	
Title or Name	Certificação do Atendimento aos Requisitos de Segurança e Radioproteção pelas Instalações Nucleares e pelas Instalações Radiativas da CNEN	
Reference Number	Instrução Normativa IN-CNEN-0001/94	
Date Promulgated or Proclaimed	1994-12-01	Regulation

Comment #6863: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Name	REG_08	
Title or Name	Licenciamento de Instalações Radiativas	
Reference Number	Norma CNEN-NE-6.02	
Date Promulgated or Proclaimed	1998-06-02	Regulation

Comment #6864: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

REGULATIONS / LAWS

Country: Brazil, Federative Republic of Reporting Year: 2006

Name	REG_09	
Title or Name	Licenciamento de Instalações Nucleares	
Reference Number	Norma CNEN-NE-1.04	
Date Promulgated or Proclaimed	1984-12-14	Regulation

Comment #6865: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Name	REG_10	
Title or Name	Sistema de Barragem de Rejeitos Contendo Radionuclídeos	
Reference Number	Norma CNEN-NE-1.10	
Date Promulgated or Proclaimed	1980-11-27	Regulation

Comment #6866: Wastes that are regulated by the Regulation

Matrix IAEA Def. - LILW-LL, LILW-SL

Name	REG_11	
Title or Name	Licenciamento de Minas e Usinas de Beneficiamento de Minérios de Urânio e/ou Tório	
Reference Number	Norma CNEN-NE-1.13	
Date Promulgated or Proclaimed	1989-08-08	Regulation

Comment #6867: Wastes that are regulated by the Regulation

Matrix IAEA Def. - LILW-LL, LILW-SL

Name	LAW_02	
Title or Name	Lei no. 4.118, de 27.08.1962	
Reference Number	Lei 4.118	
Date Promulgated or Proclaimed	1962-08-27	Law

Comment #7515: Lei 4.118

Dispõe sobre a política nacional de energia nuclear, cria a Comissão Nacional de Energia Nuclear, e dá outras providências.

REGULATIONS / LAWS

Country: Brazil, Federative Republic of Reporting Year: 2006

Name	LAW_03	
Title or Name	Lei no. 6.189, de 16.12.1974.	
Reference Number	Lei 6.189	
Date Promulgated or Proclaimed	1974-12-16	Law

Comment #7516: Lei 6.189

Nuclear law that establishes rules in this area.
Altera a Lei no. 4.118, de 27 de agosto de 1962, e a Lei no. 5.740, de 1 de dezembro de 1971, que criaram, respectivamente, a Comissão Nacional de Energia Nuclear - CNEN e a Companhia Brasileira de Tecnologia Nuclear - CBTN, que passa a denominar-se Empresas Nucleares Brasileiras Sociedade Anônima - NUCLEBRÁS, e dá outras providências.

Name	LAW_04	
Title or Name	Lei no. 6.938, de 31.08.1981	
Reference Number	Lei 6.938	
Date Promulgated or Proclaimed	1981-08-31	Law

Comment #7517: Lei 6.938

Dispõe sobre a Política Nacional do Meio Ambiente, seus fins e mecanismo de formulação e aplicação, e dá outras providências.

Name	REG_12	
Title or Name	Garantia da Qualidade para Usinas Nucleoelétricas	
Reference Number	Norma CNEN-NN-1.16	
Date Promulgated or Proclaimed	1999-09-21	Regulation

Name	REG_13	
Title or Name	Proteção Física de Unidades Operacionais da Área Nuclear	
Reference Number	Norma CNEN-NE-2.01	
Date Promulgated or Proclaimed	1996-04-19	Regulation

Name	REG_14	
Title or Name	Controle de Materiais Nucleares	
Reference Number	Norma CNEN-NN-2.02	
Date Promulgated or Proclaimed	1999-09-21	Regulation

REGULATIONS / LAWS

Country: Brazil, Federative Republic of Reporting Year: 2006

Name	LAW_05	
Title or Name	Civil Liability Law	
Reference Number	Lei 6.453	
Date Promulgated or Proclaimed	1977-12-17	Law

Policies

Country: Brazil, Federative Republic of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Partially
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Policies

Country: Brazil, Federative Republic of | **National Systems** | Reporting Year: 2006

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Partially
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Partially
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - Some
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

Policies

Country: Brazil, Federative Republic of **Disposal Facilities** Reporting Year: 2006

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	Yes
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)

108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Policies

Country: Brazil, Federative Republic of | **Import-Export** | Reporting Year: 2006

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some

Country Waste Profile Report for

Bulgaria

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-27 10:11:46

Waste Class Matrix(ces) Used/Defined

Country: Bulgaria, Republic of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Comment #7363: Waste disposal limits

National classification of waste is defined in the Regulation on Safety of Waste Management from 2004 and is substantially the same as the IAEA classification. Category 1, "transitional waste", corresponds to IAEA class 1 "exempt waste". Categories 2a and 2b are the same as IAEA's LILW-SL and LILW-LL. Category 3 is HLW, differing from IAEA definition in that the value of 2kW/m3 is not explicitely defined.

Waste Class Matrix: NPP

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Solid-1&2	100	0	0
Solid-3	100	0	0
Liquid	100	0	0

Description: The nuclear power plant has six classes of LILW-SL waste. Solid waste is categorized depending on the dose rate at 0.1 m from the waste's surface and the liquid waste is categorized according to the total activity concentration.

Comment #398: Waste classes

In addition to national categorization, according to which all KNPP waste is category 2a (LILW-SL), the following sub-categorization is introduced in Kozloduy NPP.
Solid waste is categorized and sorted depending on the gamma dose-rate at 10 cm, as follows:
1st class - up to 0.3 mSv/h
2nd class - 0.3 - 10 mSv/h
3rd class - more than 10 mSv/h
Liquid waste is categorized according to its activity concentration, as follows:
1st class (LLW) - up to 0.37 MBq/l
2nd class (ILW) - 0.37 MBq/l - 37 GBq/l
3rd class (HLW) - more than 37 GBq/l

Waste Class Matrix: BGNatl

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Category 2b	0	100	0
Category 2a	100	0	0
Category 3	0	0	100

Description: high level waste with such a concentration of radionuclides that heat generation shall be considered during storage and disposal

Attachment #1369: REGULATION FOR SAFE MANAGEMENT OF RADIOACTIVE WASTE
Adopted by the Council of Ministers Decree No. 198 of 03.08.2004, promulgated in SG No. 72 of 17.08.2004
(in English)

File name: Bulgaria 2004 Waste Regulation.pdf

File type: PDF Document

Waste Class Matrix(ces) Used/Defined

Country: Bulgaria, Republic of Reporting Year: 2006

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Bulgaria, Republic of Reporting Year: 2006

Reporting Group: **KNPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: NPP

Description: Kozloduy NPP Reporting Group

Site Name	Facility Name	Facilities Defined		
KNPP	WTCP	processing		
	AB-1	processing	storage	
	AB-2	processing	storage	
	AB-3	processing	storage	
	CWSF		storage	
	Units 1, 2		storage	
	Units 3, 4		storage	
	WMA-VS		storage	

Reporting Group: **Novi han**

Inventory Reporting Date: December 2006

Waste Matrix Used: BGNatl

Description: Novi Han storage and (former) disposal facility

Site Name	Facility Name	Facilities Defined		
Novi Han	WPF	processing		
	Liquid		storage	
	Stor2000		storage	
	Accidental			disposal
	Biological			disposal
	Solid			disposal
	SRS			disposal

Reporting Group KNPP, Site Structure: KNPP

Country: Bulgaria, Republic of Reporting Year: 2006

Full Name: Kozloduy NPP

License Holder(s) : Kozloduy NPP Plc., 3321 Kozloduy, Bulgaria - for facilities: Units 1,2, Units 3,4, AB-1, AB-2 and AB-3

State Eneterprise "Radioactive Waste", 51 James Baucher Blvd., 1407 Sofia - for facilities: WMA-VS, WTCP and CWSF

The following list the waste management facilities that are located at this site.

Facility: WTCP

Description	Waste Processing Plant for treatment and conditioning of solid and liquid waste originating from Kozloduy NPP, located on site.

Processing part of the "WTCP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	Yes	Yes	Solid-3	No	No
Liquid	Yes	Yes			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	2001

Reporting Group KNPP, Site Structure: KNPP

Country: Bulgaria, Republic of Reporting Year: 2006

Facility: AB-1

Description	Auxiliary Building, part of original design of Units 1 and 2. Processing of operational liquid waste and storage of solid waste, liquid waste and spent sorbents.

Processing part of the "AB-1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	No	No	Solid-3	No	No
Liquid	Yes	Yes			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1974

Storage part of the "AB-1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	Yes	Yes	Solid-3	Yes	Yes
Liquid	Yes	Yes			
SRS	No	No			
List SRS?	No				

Capacity	Solid waste - 7 bunkers with total capacity of 1010 m3 Liquid waste - 5 x 470 m3 High activity sorbents - 2 x 350 m3 Low activity sorbents - 2 x 188 m3

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Solid 1-7	bunker	1974	No	No	No	No
Liquid-all	tank (stainless steel)	1974	No	No	No	No

Comment #9923: Solid-1 and solid-2 classes

No separation is made on site between solid-1 and solid-2 waste classes. Since major part of the waste is estimated to be solid-1 class, all wastes of these two classes is reported as solid-1. Same comment is valid for the following facilities: AB-2, AB-3, CWSF, WMA-VS.

Reporting Group KNPP, Site Structure: KNPP

Country: Bulgaria, Republic of Reporting Year: 2006

Facility: AB-2

Description	Auxiliary Building, part of original design of Units 3 and 4. Processing of operational liquid waste and storage of solid waste, liquid waste and spent sorbents.

Processing part of the "AB-2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	No	No	Solid-3	No	No
Liquid	Yes	Yes			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1980

Storage part of the "AB-2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	Yes	Yes	Solid-3	Yes	Yes
Liquid	Yes	Yes			
SRS	No	No			
List SRS?	No				

Capacity	Solid waste - 7 bunkers with total capacity of 1010 m3 Liquid waste - 5 x 470 m3 High activity sorbents - 2 x 350 m3 Low activity sorbents - 2 x 188 m3

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Solid 1-7	bunker	1980	No	No	No	No
Liquid-all	tank (stainless steel)	1980	No	No	No	No

Facility: AB-3

Description	Auxiliary Building, part of original design of Units 5 and 6. Processing of operational liquid waste and storage of solid waste, liquid waste and spent sorbents.

Processing part of the "AB-3" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	No	No	Solid-3	No	No
Liquid	Yes	Yes			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1987

Storage part of the "AB-3" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	Yes	Yes	Solid-3	Yes	Yes
Liquid	Yes	Yes			
SRS	No	No			
List SRS?	No				

Capacity	Solid-1 and solid-2: 2486 m3 Solid-3: 213 m3 Liquid: 3600 m3 Spent sorbents: 2 x 100 m3

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Solid	bunker	1987	No	No	No	No
Liquid	tank (stainless steel)	1987	No	No	No	No

Facility: CWSF

Description	Storage facility for conditioned waste (from WTCP)

Storage part of the "CWSF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	Yes	Yes	Solid-3	No	No
Liquid	No	No			
SRS	No	No			
List SRS?	No				

Capacity	1920 containers with a total volume of 8 m3 each, including the container. Internal volume (capacity) of one container is 5 m3.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CWSF	building	2002	No	No	No	No

Reporting Group KNPP, Site Structure: KNPP

Country: Bulgaria, Republic of Reporting Year: 2006

Facility: Units 1, 2

Description	Storage facility for class "solid-3" operational waste located in the reactor hall of units 1 and 2

Storage part of the "Units 1, 2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	No	No	Solid-3	Yes	Yes
Liquid	No	No			
SRS	No	No			

List SRS?	No
Capacity	81.6 m3

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Units 1, 2	silo	1974	No	No	No	No

Facility: Units 3, 4

Description	Storage facility for class "solid-3" operational waste located in the reactor hall of units 3 and 4

Storage part of the "Units 3, 4" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	No	No	Solid-3	Yes	Yes
Liquid	No	No			
SRS	No	No			

List SRS?	No
Capacity	81.6 m3

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Units 3, 4	silo	1980	No	No	No	No

Reporting Group KNPP, Site Structure: KNPP

Country: Bulgaria, Republic of Reporting Year: 2006

Facility: WMA-VS

Description	Waste Management Storage Area "Varovo Stopanstvo"

Storage part of the "WMA-VS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid-1&2	Yes	Yes	Solid-3	No	No
Liquid	No	No			
SRS	No	No			
List SRS?	No				
Capacity	Total capacity: 11 929 m3.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
VS	building	1992	No	Yes	No	No
GTK	container (marine)	1999	No	No	Yes	No
HRAO	bunker	1979	No	No	No	No
OP	concrete pad	1994	No	No	No	No

Reporting Group KNPP, Site Data: KNPP

Country: Bulgaria, Republic of Reporting Year: 2006

Full Name: Kozloduy NPP

Inventory Reporting Date: December 2006 Waste Matrix: NPP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Solid-1&2	Storage AB-1	No	534	100	0	0	0	0	0	0	No
Solid-1&2	Storage AB-2	No	100	100	0	0	0	0	0	0	No
Solid-1&2	Storage WMA-VS	No	2895	100	0	0	0	0	0	0	No
Solid-1&2	Storage AB-2	Yes	120	100	0	0	0	0	0	0	No
Solid-1&2	Storage AB-3	Yes	1101	100	0	0	0	0	0	0	No
Solid-1&2	Storage CWSF	Yes	2725	100	0	0	0	0	0	0	No
Solid-1&2	Storage WMA-VS	Yes	1124	100	0	0	0	0	0	0	No
Solid-3	Storage AB-3	No	13	100	0	0	0	0	0	0	No
Solid-3	Storage Units 1, 2	No	53	100	0	0	0	0	0	0	No
Solid-3	Storage Units 3, 4	No	33	100	0	0	0	0	0	0	No
Liquid	Storage AB-1	No	2532	100	0	0	0	0	0	0	No
Liquid	Storage AB-2	No	2278	100	0	0	0	0	0	0	No
Liquid	Storage AB-3	No	2780	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination	Yes			
Evaporation			same	
Filtration			same	
Incineration		Yes		
Ion Exchange			same	
Shredding and Compaction			same	
Super Compaction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization		Yes		
Cementation			increase	
Containerization			increase	
Grouting			increase	

Reporting Group Novi han, Site Structure: Novi Han

Country: Bulgaria, Republic of

Reporting Year: 2006

Full Name: Novi Han Repository

License Holder(s) : State Enterprise "Radioactive Waste"
51 James Baucher Blvd.
1407 Sofia
Bulgaria

The following list the waste management facilities that are located at this site.

Facility: WPF

Description	Waste Processing Facility

Processing part of the "WPF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category 2b	No	No	Category 2a	No	No
Category 3	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1964

Facility: Liquid

Description	Liquid waste storage tanks

Storage part of the "Liquid" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category 2b	No	No	Category 2a	Yes	Yes
Category 3	No	No			
SRS	No	No			
List SRS?	No				
Capacity	4 stainless steel tanks 12 m3 each, total capacity 48 m3				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Liquid	tank (stainless steel)	1964	No	No	Yes	No

Facility: Stor2000

Description	Storage units for acceptance of waste generated in nuclear applications, built after 2000

Storage part of the "Stor2000" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category 2b	Yes	Yes	Category 2a	Yes	Yes
Category 3	No	No			
SRS	Yes	Yes			
List SRS?	No				
Capacity	Current capacity according to operating license about 950 m3				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
JPK	container (ISO)	2000	No	No	Yes	Yes
PEK	not in list	2000	No	No	Yes	Yes
Type comment:	reinforced concrete box					
GOU	not in list	2001	No	No	Yes	Yes
Type comment:	removable, reinforced concrete cover sitting on a concrete pad to protect items inside					
KUB	not in list	2003	No	No	Yes	Yes
Type comment:	reinforced concrete box					
Lot 4	concrete pad	2000	No	No	No	No

Facility: Accidental

Description	Engineered trench for disposal of LIL solid waste generated during accident (originally planned) and normal operation

Disposal part of the "Accidental" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category 2b	No	No	Category 2a	Yes	No
Category 3	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	200	Capacity -planned (m3)	200
Depth (m)	3-4		
Host medium	crystalline rock (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1960	1960
site selection		1960	1962
design		1984	1984
construction		1984	1984
commissioning		1984	1984
operation		1984	1994
Additional Activities and Events			
EVENT: operating license suspended		1994	

Reporting Group Novi han, Site Structure: Novi Han

Country: Bulgaria, Republic of Reporting Year: 2006

Facility: Biological

Description	Concrete vault for disposal of biological waste

Disposal part of the "Biological" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category 2b	No	No	Category 2a	Yes	No
Category 3	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	80	Capacity -planned (m3)	80
Depth (m)	3-4		
Host medium	crystalline rock (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1960	1960
site selection		1960	1962
design		1962	1962
construction		1962	1964
commissioning		1964	1964
operation		1964	1994
Additional Activities and Events			
EVENT: operating license suspended		1994	

Reporting Group Novi han, Site Structure: Novi Han

Country: Bulgaria, Republic of Reporting Year: 2006

Facility: Solid

Description	Concrete vault for disposal of solid waste originating from nuclear applications

Disposal part of the "Solid" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category 2b	No	No	Category 2a	Yes	No
Category 3	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	237	Capacity -planned (m3)	237
Depth (m)	3-4		
Host medium	crystalline rock (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1960	1960
site selection		1960	1962
design		1962	1962
construction		1962	1964
commissioning		1964	1964
operation		1964	1994
Additional Activities and Events			
EVENT: operating license suspended		1994	

Reporting Group Novi han, Site Structure: Novi Han

Country: Bulgaria, Republic of Reporting Year: 2006

Facility: SRS

Description	Concrete vault for disposal of spent SRS.

Disposal part of the "SRS" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Category 2b	No	No	Category 2a	No	No
Category 3	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	5.5		
Host medium	crystalline rock (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1960	1960
site selection		1960	1962
design		1962	1962
construction		1962	1964
commissioning		1964	1964
operation		1964	1994
Additional Activities and Events			
EVENT: operating license suspended		1994	

Reporting Group Novi han, Site Data: Novi Han

Country: Bulgaria, Republic of Reporting Year: 2006

Full Name: Novi Han Repository

Inventory Reporting Date: December 2006 Waste Matrix: BGNatl

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category 2b	Storage Stor2000	No	339	0	0	0	100	0	0	0	No

Class	Location Facility Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category 2a	Storage Liquid Liquid	No	48	100	0	0	0	0	0	0	No
Category 2a	Storage Stor2000 Solid	No	147	100	0	0	0	0	0	0	No

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Category 2a	Disposal Accidental	No	100	0	0	0	100	0	0	0	No
Category 2a	Disposal Solid	No	120	0	0	0	100	0	0	0	No
Category 2a	Disposal Biological	Yes	25	0	0	0	100	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Segregation/Sorting			same	
Wastewater Treatment	Yes			

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Encapsulation	Yes			
Grouting				Yes

REGULATORS

Country: Bulgaria, Republic of   Reporting Year: 2006

Name	NRA
Full Name	Nuclear Regulatory Agency
Division	
City or Town	

Comment #6525: Wastes that are regulated by the Regulator

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix NPP - Liquid-1, Liquid-2, Liquid-3, Solid-1, Solid-2, Solid-3

Attachment #1270: General description of NRA organization

File name: 2003_App_NRA1.doc

File type: MS Office Document

Member State's Reference # NRA1

Attachment #1271: NRA organizational structure

File name: 2003_App_NRA2.doc

Member State's Reference # NRA2

REGULATIONS / LAWS

Country: Bulgaria, Republic of Reporting Year: 2006

Name	ASUNE	
Title or Name	Act on the Safe Use of Nuclear Energy	
Reference Number		
Date Promulgated or Proclaimed	2002-06-28	Law

Comment #6526: Wastes that are regulated by the ASUNE

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Attachment #1272: Act on the Safe Use of Nuclear Energy - full text

File name: Act_eng.pdf

File type: PDF Document

Member State's Reference # ASUNE

Name	RW Safety	
Title or Name	Regulation for safe management of radioactive waste	
Reference Number		
Date Promulgated or Proclaimed	2004-08-03	Regulation

Comment #6527: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Attachment #1275: Regulation for Safe Management of Radioactive Waste

File name: Reg_RW_Engl.doc

File type: WordPerfect Document

Member State's Reference # Reg_Waste

Name	SE "RW"	
Title or Name	Regulation for the conditions and procedure for transfer of radioactive waste to the state enterprise “Radioactive Waste”	
Reference Number	BNRP-2000	
Date Promulgated or Proclaimed	2004-07-14	Regulation

Comment #6529: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Comment #9701: Matters arranged by the Regulation SE

The entities, which generate radioactive waste as a result of their activities, are obliged to transfer the waste to the State enterprise, which is responsible for the management of the radioactive waste after the deposit.
The regulation defines the conditions and procedure for transferring the radioactive waste to the State enterprise “Radioactive Waste” and the terms for the transfer, as well as the radioactive waste not eligible for transfer. Specific procedures are defined for transferring radioactive waste generated from previous activities, radioactive waste with unknown owner, or which has been imported to the country and cannot be returned.
The radioactive waste becomes state property at the moment of its transfer to the State enterprise.

REGULATIONS / LAWS

Country: Bulgaria, Republic of Reporting Year: 2006

Name	NPP Safety	
Title or Name	Regulation for providing the safety of nuclear power plants	
Reference Number		
Date Promulgated or Proclaimed	2004-07-19	Regulation

Comment #6530: Matters arranged by the Regulation

The regulation settles the matters related to the basic criteria and rules for the safety of nuclear power plants based on the concept of in-depth defense.
Subject to regulation are the organizational measures and technical requirements for providing of the safety during site selection, design, construction, commissioning and operation of nuclear power plants. The regulation contains detailed instructions related to the determination of the design basis and safety evaluations, the characteristics of the site and the safety requirements for the nuclear power plant and its systems.
The regulation is developed based on the IAEA safety standards and the reference levels for harmonization of the safety requirements for nuclear power plans, defined by the West European Nuclear Regulators' Association (WENRA).

Name	SIR Safety	
Title or Name	Regulation for radiation protection during activities with sources of ionizing radiation	
Reference Number		
Date Promulgated or Proclaimed	2004-08-04	Regulation

Comment #9702: Matters arranged by the Regulation SIR Safety

The regulation defines the basic requirements and rules for radiation protection during activities with sources of ionizing radiation and the condition and the procedure for accounting of the sources of ionizing radiation. The regulation puts in place requirements for radiation monitoring during activities with sources of ionizing radiation.
The regulation specifies technical and organizational rules for conforming to the established in Bulgaria basic norms for radiation protection.

Name	Licensing	
Title or Name	Regulation for the procedure for issuing licenses and permits for safe use of nuclear energy	
Reference Number		
Date Promulgated or Proclaimed	2004-05-04	Regulation

Comment #6532: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Comment #9703: Matters arranged by the Regulation Licensing

The regulation defines all matters related to the procedures for issuing, changing, renewing, canceling, revoking and controlling the licenses and permits demanded by the Safe Use of Nuclear Energy Act. The structure of the regulation takes into consideration the specifics of the types of nuclear facilities, activities and sites with sources of ionizing radiation. The scope and contents of the required documents is specified taking into account the necessary measures for providing the nuclear safety, radiation and physical protection. For activities with certain types of ionizing radiation sources, based on the lower risk for the population and the environment, alleviations of the required documents is provided.

REGULATIONS / LAWS

Country: Bulgaria, Republic of Reporting Year: 2006

Name	Emergency	
Title or Name	Regulation for emergency planning and emergency preparedness in case of nuclear and radiation accident	
Reference Number		
Date Promulgated or Proclaimed	2004-07-30	Regulation

Comment #6533: Matters arranged by the Regulation

The regulation defines, in accordance to the provisions of the Safe Use Of Nuclear Energy Act, the conditions and procedure for developing emergency plans and the obligations of the persons who apply them.
The actions and measures for limitation and liquidation of the consequences of nuclear or radiation accident are also defined as well as the criteria for decision taking for their activation and the methods for informing the population. Subject to definition is also the maintenance and control of the emergency preparedness and the interaction between the executive authorities and the licensees or holders of permits according to the Safe Use of Nuclear Energy Act.

Name	BNRP	
Title or Name	Regulation for the basic norms for radiation protection	
Reference Number	Reg.10	
Date Promulgated or Proclaimed	2004-07-30	Regulation

Comment #9704: Matters arranged by the Regulation BNRP

The regulation reflects the requirements of the 96/29/EURATOM Directive, setting the basic standards for protecting the health of personnel and population from the damaging influence of ionizing radiation. The basic principles of radiation protection are developed, and the dose limits for personnel and population are set.
In accordance with the provisions of the Directive, the concept for releasing from control of radioactive substances due to permitted activities, and the concept for limitation of irradiation are introduced.
The Regulation sets requirements for monitoring of the working quarters, and the individual irradiation, as well as for the registration of the results of this monitoring.
The requirements of Directive 90/641/EURATOM for operational protection of outside workers from the damaging influence of ionizing radiation during their activities in the controlled areas are introduced.
In relation to the engagements of the Bulgarian side in the negotiations with the European Union, the Regulation introduces the basic principles and requirements for radiation protection from medical irradiation, taking into consideration Directive 84/466/EURATOM for health protection from the damaging influence of ionizing radiation from medical irradiation.

REGULATIONS / LAWS

Country: Bulgaria, Republic of Reporting Year: 2006

Name	Security	
Title or Name	Regulation for the provision of physical protection of nuclear facilities, nuclear material and radioactive substances	
Reference Number		
Date Promulgated or Proclaimed	2004-08-25	Regulation

Comment #9706: Matters arranged by the Regulation Security

In the Regulation, according to the Safe use of nuclear energy Act and the convention for physical protection of nuclear material, the matters related to physical protection of nuclear facilities, and during use, storage and transportation of nuclear materials and radioactive substances are defined.
The provisions of the Regulation take into consideration the specifics of the different kinds of nuclear facilities, nuclear materials and radioactive substances, which demand different levels of physical protection, depending on the category of nuclear materials and radioactive substances and the degree of risk.

Name	Funding	
Title or Name	Regulation for the procedure for assessment, collection, spending and control of the financial resources and definition of the amount of contributions due on the “Radioactive waste” Fund	
Reference Number		
Date Promulgated or Proclaimed	2003-12-17	Regulation

Comment #9707: Matters arranged by the Regulation Funding

The regulation determines the procedure for assessment, collection, spending and control of the financial resources and definition of the amount of contributions due on the “Radioactive waste” Fund under auspices of the Minister of Energy and Energy Resources. The Fund is managed in a manner to assure implementation of the activities for radioactive waste management. The revenues of the Fund are collected mainly from contributions from legal and physical entities, which generate radioactive waste, due for transfer to the state enterprise “Radioactive waste”, as a result of their activities as well as from national budget resources, allocated annually pursuant to the National Budget Act for the relevant year.

Name	Notifictn	
Title or Name	Regulation of the conditions and procedure for notification of the NRA about events in nuclear facilities and sites with sources of ionizing radiation	
Reference Number		
Date Promulgated or Proclaimed	2004-07-30	Regulation

Comment #9708: Matters arranged by the Regulation Notifictn

The regulation defines the obligations of the licensee or the holder of a permit for creation of a system for collecting, registration, investigation, analysis and evaluation of events and determination of corrective measures.
Also defined are the requirements for usage of the information about events, including for analysis of the operational experience, determining of the importance of the events for safety, as well as the procedure and terms for providing information to the citizens for events of different importance.

MILESTONES

Country: Bulgaria, Republic of

Reporting Year: 2006

Start Year or Reference Year:	1961	End Year	
Description of Milestone			
Commissioning of IRRT-2000 research reactor, located in Sofia and operated by the Bulgarian Academy of Science			

Start Year or Reference Year:	1964	End Year	
Description of Milestone			
Commissioning of Novi Han reporsitory for LILW from the operation of IRRT-2000 research reactor and from the isotope applications			

Start Year or Reference Year:	1974	End Year	
Description of Milestone			
Commissioning of Kozloduy NPP unit 1 (VVER-440, model 230), followed by unit 2 (VVER-440/230) in 1975, unit 3 (VVER-440/230) in 1980, unit 4 (VVER-440/230) in 1982, unit 5 (VVER-1000/320) in 1987 and unit 6 (VVER-1000/320) in 1989			

Start Year or Reference Year:	1991	End Year	1994
Description of Milestone			
Research for selection of perspective sites for disposal of radioactive waste conducted. As a result 7 sites are determined and criteria for final site selection elaborated. Results are compiled in "Conception for National Repository for Radioactive Waste"			

Start Year or Reference Year:	1994	End Year	
Description of Milestone			
Operation of Novi Han repository suspended by the regulator with prescription for improvements			

Start Year or Reference Year:	1996	End Year	1997
Description of Milestone			
Implementation of big international project "Radioactive waste management in Bulgaria"			

Start Year or Reference Year:	1997	End Year	
Description of Milestone			
Program for upgrading the Novi Han repository started, financed by the operator, the regulator and the state budget, with the support of IAEA TC Project BUL/4/005 "Increasing Safety of Novi Han Repository"			

Start Year or Reference Year:	1999	End Year	
Description of Milestone			
Future investigations for disposal site selection for LILW from Kozlody NPP operation finalized. One site recommended as most perspective			

Start Year or Reference Year:	2002	End Year	2003
Description of Milestone			
Implementation of commissioning programme of waste processing plant on Kozloduy NPP site			

Start Year or Reference Year:	2002	End Year	
Description of Milestone			
Final shut-down of Units 1 and 2 of Kozloduy NPP for decommissioning			

Start Year or Reference Year:	2003	End Year	2005
Description of Milestone			
Test operation of waste processing plant on Kozloduy NPP site			

MILESTONES

Country: Bulgaria, Republic of

Reporting Year: 2006

Start Year or Reference Year:	2004	End Year	
Description of Milestone			
Establishment and start of operations of the State Enterprise "Radioactive Waste" responsible for the off-site management of radioactive waste at national level.			

Start Year or Reference Year:	2004	End Year	
Description of Milestone			
Adoption of governmental Strategy for management of spent fuel and radioactive waste			

Start Year or Reference Year:	2005	End Year	
Description of Milestone			
Operating license issued for the waste management facility on Kozloduy site. Licensee - State Eneterprise "Radioactive Waste" (SERAW).			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
Operating license issued for the waste storage facility on Novi han site. Licensee - State Eneterprise "Radioactive Waste" (SERAW).			

Policies

Country: Bulgaria, Republic of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Attachment #1273: National policy for radwaste management

File name: Policy.doc

File type: WordPerfect Document

Member State's Reference # policy

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Comment #7259: Strategy

Council of Ministers (the government) issued in 1999 first National Strategy for Management of Spent Fuel and for Management of Radioactive Waste. Major producers of radwaste e.g. Kozloduy NPP have their own strategic plans being in line with the National Strategy. In 2004 the government adopted new strategy for management of radioactive waste spent fuel.

Requirements (Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

	Requirements	(Yes;Partially;No)
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Partially
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

Responsibilities (Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	(Complete;Incomplete)
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete

17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Partially
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Partially
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Partially
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Partially

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

Policies

Country: Bulgaria, Republic of — **Disposal Facilities** — Reporting Year: 2006

	Licensing	(Yes - All;Yes - Some;No)

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - Some

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

Comment #9709: Waste acceptance criteria for disposal

Even though the answer to the question is "Yes-all" the following shall be taken into account:
1. Currently there is no waste disposal facility in operation in the country;
2. When Novi Han facility was operated (1960's - 1994) it had WAC which was not as detailed as required today.

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes

If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.

52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	No
54	leachate treatment systems	No
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)

Does your country have written policies or written procedures for the following:

60	waste sorting/segregation	Yes

61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	Yes
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
110	Currently, are any of your country’s wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

Policies

80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	No
84	Do any agreements include suppliers that are outside of your Country?	No

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	Yes
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	Yes

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

Policies

Country: Bulgaria, Republic of **Decommissioning** Reporting Year: 2006

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Canada

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-03-12 08:29:39

Waste Class Matrix(ces) Used/Defined

Country: Canada Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: NRCan

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
LLW	0	100	0
NuclearFuel	0	0	100
Tailings	0	100	0

Description: Radioactive waste is grouped into three categories: nuclear fuel waste, low-level radioactive waste (LLW), and uranium mill tailings. Since fuel and tailings are outside of the NEWMDB scope, only LLW will be reported. The % cited are a first order estimate and will be updated in a future submission. Please refer to the comment that is included for this matrix.

Comment #7426: Waste Classification in Canada

The classification of radioactive waste in Canada is described in the report "Inventory of Radioactive Waste in Canada", issued in 2004 by the Low Level Radioactive Waste Management Office (LLRWMO); publication LLRWMO-01613-041-10001

The definition of LLW is based on exclusion. It is all radioactive waste that is neither spent fuel nor uranium mill tailings. Therefore, LLW includes items ranging from very low activity waste from research facilities, hospitals and universities up to highly active waste such as ion exchange resins from reactor liquid clean up systems, irradiated reactor core components and CANDU "retubing" waste.

Historic waste is LLW that was managed in the past in a manner no longer considered acceptable but for which the owner cannot reasonably be held responsible and for which the federal government has accepted responsibility.

Attachment #1276: Inventory of Radioactive Waste in Canada (2004)

This report presents the inventory of radioactive waste in Canada to the end of 2003. It provides an review on the production, accumulation and projections of radioactive waste in Canada.

File name: Inventory_Report_2004.pdf

File type: PDF Document

Member State's Reference # LLRWMO-01613-041-10001

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Canada Reporting Year: 2006

Reporting Group: **National**

Inventory Reporting Date: December 2006

Waste Matrix Used: NRCan

Description: The national inventory of radioactive waste in Canada is reported according to "on going" and "historical" waste. For reporting to the NEWMDB (to allow traceability), two "theoretical sites" are defined: ONGOING and HISTORICAL

Site Name	Facility Name	Facilities Defined		
HISTORIC	CCPTSS		storage	
	CSP		storage	
	FMLTMF		storage	
	FSISM		storage	
	JSM		storage	
	LRSM		storage	
	PGWMF		storage	
	PSECS		storage	
	PSETSS		storage	
	PSSM		storage	
	PTSS		storage	
	SSRCS		storage	
	STPTSS		storage	
	TISM		storage	
	WWMF		storage	
ONGOING	BNPD-CMLF	processing		
	Monserco	processing		
	AECL-CRL	processing	storage	
	BNPD-WWMF	processing	storage	
	AECL-WL		storage	
	BNPD-RWOS1		storage	
	HQWMF		storage	
	Pickering		storage	
	PLWMF		storage	

Reporting Group National, Site Structure: HISTORIC

Country: Canada Reporting Year: 2006

Full Name:	For reporting to the NEWMDB, this "theoretical site" is used to report waste processing and inventories for historical waste
Location:	various locations
License Holder(s) :	various license holders

The following list the waste management facilities that are located at this site.

Facility: CCPTSS

Description	Cameco Centre Pier Temporary Storage Site (CCPTSS is in a storage-with-surveillance mode)

Storage part of the "CCPTSS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	21,000 cubic metres				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CCPTSS	mound	2003	Yes	Yes	No	No

Facility: CSP

Description	Caroline Street Park (CSP is in a storage-surveillance mode)

Storage part of the "CSP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	2,000 cubic metres				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CSP	mound	1985	Yes	Yes	No	No

Reporting Group National, Site Structure: HISTORIC

Country: Canada Reporting Year: 2006

Facility: FMLTMF

Description	Fort McMurray Long-Term Management Facility (FMLTMF is in a storage-with-surveillance mode)

Storage part of the "FMLTMF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	47,000 cubic metre				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
FMLMF	mound	1993	Yes	Yes	No	No

Facility: FSISM

Description	Fort Smith Interim Storage Mound (The FSISM is in a storage-with-surveillance mode)

Storage part of the "FSISM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	200 cubic metres (approx)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
FSISM	mound	1999	No	No	No	No

Facility: JSM

Description	John Street Mound (JSM is in a storage-with-surveillance mode)

Storage part of the "JSM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	2,000 cubic metres				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
JSM	mound	1994	Yes	Yes	No	No

Reporting Group National, Site Structure: HISTORIC

Country: Canada Reporting Year: 2006

Facility: LRSM

Description	Lakeshore Road Storage Mound (LRSM is in a storage-with-surveillance mode)

Storage part of the "LRSM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	2,000 cubic metres (approx)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LRSM	mound	1998	Yes	Yes	No	No

Facility: PGWMF

Description	Port Granby Waste Management Facility (The PGWMF is in a storage-with-surveillance mode)

Storage part of the "PGWMF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	450,000 cubic metres (approx)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PGWMF	mound	1955	Yes	Yes	No	No

Facility: PSECS

Description	Pine Street Extension Consolidation Site (The PSECS is in Storage-with-surveillance mode)

Storage part of the "PSECS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	2,000 cubic metres				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PSECS	mound	1989	Yes	Yes	No	No

Reporting Group National, Site Structure: HISTORIC

Country: Canada Reporting Year: 2006

Facility: PSETSS

Description	Pine Street Extension Temporary Storage Site (The PSETSS is in storage-with-surveillance mode)

Storage part of the "PSETSS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	7,000 cubic metres

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PSETSS	mound	1984	No	No	No	No

Facility: PSSM

Description	Peter Street Storage Mound (PSSM is in a storage-with-surveillance mode)

Storage part of the "PSSM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	200 cubic metres

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PSSM	mound	1985	Yes	Yes	No	No

Facility: PTSS

Description	Passmore Temporary Storage Site (PTSS is in a storage-with-surveillance mode)

Storage part of the "PTSS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	9,000 cubic metres (approx)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PTSS	mound	1996	Yes	Yes	No	No

Reporting Group National, Site Structure: HISTORIC

Country: Canada | Reporting Year: 2006

Facility: SSRCS

Description	Strachan Street Ravine Consolidation Site (SSECS is in a storage-with-surveillance mode)

Storage part of the "SSRCS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	2,500 cubic metres

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSRCS	mound	1989	Yes	Yes	No	No

Facility: STPTSS

Description	Sewage Treatment Plant Temporary Storage Site (STPTSS is in a storage-with-surveillance mode)

Storage part of the "STPTSS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	2,000- cubic metres

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
STPTSS	mound	1981	Yes	Yes	No	No

Facility: TISM

Description	Tulita Interim Storage Mound (The TISM is in a storage-with-surveillance mode)

Storage part of the "TISM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	600 cubic metres (approx)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TISM	mound	1999	No	No	No	No

Reporting Group National, Site Structure: HISTORIC

Country: Canada Reporting Year: 2006

Facility: WWMF

Description	Welcome Waste Management Facility (The WWMF is in a storage-with-surveillance mode)

Storage part of the "WWMF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity	700,000 cubic metres (approx)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WWMF	mound	1948	Yes	Yes	No	No

Reporting Group National, Site Data: HISTORIC

Country: Canada Reporting Year: 2006

Full Name: For reporting to the NEWMDB, this "theoretical site" is used to report waste processing and inventories for historical waste

Inventory Reporting Date: December 2006 Waste Matrix: NRCan

Waste Inventory Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage Solid	No	2294650	0	0	0	0	0	100	0	Yes

Comment #7571: additional information

The majority of Canada's LLW, about 1.7M m3, is referred to as "historic" and was produced primarily from uranium refining operations prior to the 1980s. Canada does not differentiate between SL and LL so, since the majority is historic LL and most of the remainder is at CRL and not clasified LL or SL, it has all been characterized as LL.

Reporting Group National, Site Structure: ONGOING

Country: Canada Reporting Year: 2006

Full Name:	For reporting to the NEWMDB, this "theoretical site" is used to report waste processing and inventories for ongoing operations
Location:	various locations
License Holder(s) :	various license holders

The following list the waste management facilities that are located at this site.

Facility: BNPD-CMLF

Description	Bruce Nuclear Power Development - Central Maintenance and Laundry Facility

Facility: Monserco

Description	Monserco Waste Management Facility (processing and interim storage of waste before transfer to AECL-CRL)

Facility: AECL-CRL

Description	facilities at Atomic Energy of Canada - Chalk River Laboratories (waste treatment centre, waste reception centre, waste management areas)

Storage part of the "AECL-CRL" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	NuclearFuel	Yes	Yes
Tailings	No	No			
SRS	Yes	Yes			

List SRS?	No
Capacity	The waste management (WM) areas have a variety of facilities (trenches, bunkers, tile holes, etc) opened at various times. Some are closed and/or full.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WM Areas	various	0	No	No	No	Yes
Type comment:	a variety of waste management storage units are in use in the WMA					

Reporting Group National, Site Structure: ONGOING

Country: Canada Reporting Year: 2006

Facility: BNPD-WWMF

Description	Bruce Nuclear Power Development - Western Waste Management Facility (WWMF)

Storage part of the "BNPD-WWMF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	NuclearFuel	Yes	Yes
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	BNPD-WWMF has a variety of storage facilities opened at various times. Some are closed and/or full.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WWMF	various	0	No	No	No	No
Type comment:	a variety of waste management storage units are in use in the WWMF					

Facility: AECL-WL

Description	facilities at Atomic Energy of Canada - Whiteshell Laboratories

Storage part of the "AECL-WL" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	NuclearFuel	Yes	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	The waste management (WM) areas have a variety of facilities opened at various times.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WM Areas	various	0	No	No	No	No
Type comment:	a variety of waste management storage units are in use in the WMA					

Reporting Group National, Site Structure: ONGOING

Country: Canada Reporting Year: 2006

Facility: BNPD-RWOS1

Description	Bruce Nuclear Power Development - Radioactive Waste Operations Site 1

Storage part of the "BNPD-RWOS1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	No	No
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	closed facility (no new waste permitted); in surveillance mode

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RWOS1	trench (unlined)	0	Yes	No	No	No
RWOS1	tile hole	0	Yes	Yes	No	No

Facility: HQWMF

Description	Gentilly-2 Waste Management Facility (The HQWMF is currently licensed to accept and store radioactive waste and spent fuel produced at the Gentilly-2 Nuclear Generating Station)

Storage part of the "HQWMF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	NuclearFuel	Yes	Yes
Tailings	No	No			
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WMF	various	0	No	No	No	No
Type comment:	a variety of waste management storage units are in use in the WMF					

Facility: Pickering

Description	Pickering Waste Management (The Pickering Waste Management Facility is currently licensed to accept and store spent fuel generated at the Pickering A and B Nuclear Generating Stations)

Storage part of the "Pickering" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	No	NuclearFuel	Yes	Yes
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WMF	various	0	No	No	No	No
Type comment:	a variety of waste management storage units are in use in the WMF					

Facility: PLWMF

Description	Point Lepreau Waste Management Facility (The PLWMF is currently licensed to accept and store radioactive waste and spent fuel produced at the Point Lepreau Nuclear Generating station.)

Storage part of the "PLWMF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	NuclearFuel	Yes	Yes
Tailings	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WMF	various	0	No	No	No	No
Type comment:	a variety of waste management storage units are in use in the WMF					

Reporting Group National, Site Data: ONGOING

Country: Canada Reporting Year: 2006

Full Name: For reporting to the NEWMDB, this "theoretical site" is used to report waste processing and inventories for ongoing operations

Inventory Reporting Date: December 2006 Waste Matrix: NRCan

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage Liquid	No	250	100	0	0	0	0	0	0	Yes
LLW	Storage Solid	No	598810	90	0	0	8	0	2	0	Yes

Comment #7572: additional details

The unprocessed liquid waste contains about 10 m3 of sludge.

Waste Class	Status
NuclearFuel (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination			increase	
Evaporation			same	
Filtration			same	
Incineration			same	
Ion Exchange			same	
Membrane Technology			same	
Radionuclide Separation			same	
Segregation/Sorting			increase	
Shredding			same	
Shredding and Compaction			increase	
Size Reduction			increase	
Thermal Desorption			same	
Thermal Treatment (non incineration)			same	
Wastewater Treatment			increase	

Comment #7573: additional information

Some processes are related to specific industries and may be quite small.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	
Containerization			same	
Encapsulation			same	
Solidification			same	
Stabilization			same	

REGULATORS

Country: Canada Reporting Year: 2006

Name	CNSC
Full Name	Canadian Nuclear Safety Commission
Division	
City or Town	Ottawa

REGULATIONS / LAWS

Country: Canada Reporting Year: 2006

Name	NSCA	
Title or Name	Nuclear Safety and Control Act	
Reference Number	Statutes of Canada, 1997	
Date Promulgated or Proclaimed	2000-05-31	Law

Comment #7478: NSCA

Nuclear Safety and Control Act: Canadian federal legislation on the regulation, development and use of nucelar energy and the production, possession and use of nuclear substances, prescribed equipment and prescribed information.

Name	GNSCR	
Title or Name	General Nuclear Safety and Control Regulations	
Reference Number	SOR/2000-202	
Date Promulgated or Proclaimed	2000-05-31	Regulation

Comment #7479: GNSCR

General Nuclear Safety and Control Regulations: Canadian federal regulations respecting licensing of nuclear activities,

Name	RPR	
Title or Name	Radiation Protection Regulations	
Reference Number	SOR/2000/203	
Date Promulgated or Proclaimed	2000-05-31	Regulation

Comment #7480: RPRegs

Radiation Protection Regulations: Canadian federal regulations on radiation protection relating to all nuclear facilities.

Name	NSR	
Title or Name	Nuclear Security Regulations	
Reference Number	SOR/2000-209	
Date Promulgated or Proclaimed	2000-05-31	Regulation

Comment #7483: NSRegs

Nuclear Security Regulations: Canadian federal regulations dealing with security aspects of all nuclear material and facilities.

REGULATIONS / LAWS

Country: Canada Reporting Year: 2006

Name	PTNSRegs	
Title or Name	Packaging and Transport of Nuclear Substances Regulations	
Reference Number	SOR/2000-208	
Date Promulgated or Proclaimed	2000-05-31	Regulation

Comment #7484: PTNSRegs

Packaging and Transport of Nuclear Substances Regulations: Canadian federal regulations dealing with the packing and transport of nuclear substances, including nuclear wastes.

Name	NNPIECRegs	
Title or Name	Nuclear Non-Proliferation Import and Export Control Regulations	
Reference Number	SOR/2000/210	
Date Promulgated or Proclaimed	2000-05-31	Regulation

Name	NFWA	
Title or Name	Nuclear Fuel Waste Act	
Reference Number	Statutes of Canada 2002	
Date Promulgated or Proclaimed	2002-11-15	Law

Comment #9930: NFWA

The NFWA requires nuclear energy corporations to establish a waste mangement organization to
a) propose to the government of Canada approaches for the management of nuclear fuel waste, and
b) implement the approach

Name	NSRDRegs	
Title or Name	Nuclear Substances and Radiation Devices Regulations	
Reference Number	SOR/2000/207	
Date Promulgated or Proclaimed	2000-05-31	Regulation

Name	UMMRegs	
Title or Name	Uranium Mines and Mills Regulations	
Reference Number	SOR/2000/206	
Date Promulgated or Proclaimed	2000-05-31	Regulation

MILESTONES

Country: Canada | Reporting Year: 2006

Start Year or Reference Year:	2000	End Year	
Description of Milestone			
Entry into force of the Canadian Nuclear Safety Control Act and related regulations			

Start Year or Reference Year:	2002	End Year	
Description of Milestone			
Entry into force of the Nuclear Fuel Waste Act - Report submitted to the federal government in November 2005.			

Start Year or Reference Year:	2006	End Year	2011
Description of Milestone			
Initiation of the Nuclear Legacy Liabilities Program (NLLP), a 5-year start-up phase of a long-term, 70-year strategy to deal with the nuclear legacy liabilities. The Government of Canada had committed $520 million to fund this program. The 5-year start-up phase is directed at addressing immediate health, safety, and environmental priorities, accelerating the decontamination and demolition of shutdown buildings, laying the groundwork for subsequent phases of the strategy, and continuing necessary care and maintenance activities. Also, the long-term strategy will be further developed and refined, and public consultations are planned to inform this work and decisions on the next phase of the strategy			

Policies

Country: Canada | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #7486: P-290

Managing Radioactive Waste. Policy of the Canadian Nuclear Safety Commission put in place July 2004

Comment #7487: P-223

Protection of the Environment: Policy of the Canadian Nuclear Safety Commission relating to environmental protection from nuclear activities. Put in place February 2001

Comment #7488: R-71

Deep Geological Disposal of Nuclear Fuel Waste: Regulatory Policy document of the Canadian Nuclear Safety Commission, January 1985

Comment #7489: R-85

Radiation Protection Requisites for Exemption of Certain Radioactive Materials from further Licensing Upon Transerral for Disposal. Regulatory Policy document of the Canadian Nuclear Safety Commission, August 1989

Comment #7490: R-72

Geological Considerations for Siting a Repository for Underground Disposal of High-Level Radioactive Waste. Regulatory Policy document of the Canadian Nuclear Safety Commission, September 1987.

Comment #9821: Policy Framework for Radioactive Waste

Radioactive waste policy framework that will guide Canada's approach for radioactive waste disposal-1996
Natural Resources Canada

Comment #9822: G-320

Draft guide of the Canadian Nuclear Safety Commission entitled "Assessing The Long Term Safety of Radioactive Waste Management" April 2005

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes

10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

Comment #7501: relevant legislation

These requirements are covered in federal legislation, the Nuclear Safety and Control Act, and regulations.

	Responsibilities	(Complete;Incomplete)
Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.		
Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes

36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes

If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.

52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Comment #7502: specification in licenses

These requirements are generally noted in the General Nuclear Safety Regulations and are specifically addressed in each individual licence for a waste management facility.

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	No
61	waste minimization	No
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

Registration	(Yes;No)

Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)

Policies

Country: Canada | **Spent SRS** | Reporting Year: 2006

71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

Agreements (Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Comment #7504: federal regulations

Federal regulations cover release and disposal of all radioactive materials: General Nuclear Safety and Control Regulations and the Radiation Protection Regulations.

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Comment #7492: Import-Export

Nuclear Non-Proliferation Import and Export Control Regulations made pursuant to the Canadian Nuclear Safety and Control Act. Administered by the Canadian Nuclear Safety Commission.

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Comment #7503: relevant regulations

Federal regulations made pursuant to legislation: Nulcear Non-Proliferation Import and Export Control Regulations

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	Yes

	Processing	(Yes - All;Yes - Some;No)
94	If your Country has high-level liquid wastes in storage, are there documented plans in place to process these liquids?	No

	Timeframe	(Yes - All;Yes - Some;No)
95	If your Country has high-level liquid wastes in storage, are there plans to have this waste be processed within a specified time frame?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - All
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - All

Country Waste Profile Report for

Chile

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-27 10:12:34

Waste Class Matrix(ces) Used/Defined

Country: Chile, Republic of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: CHILECLASS

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
CATEGORY 1	98	2	0
CATEGORY 2	100	0	0

Description: CATEGORY 1:ALFA EMITTERS, WHATEVER PERIOD OR HALF LIFE
CATEGORY 2: BETA, GAMMA EMITTERS, HALF LIFE LONGER THAN 100 DAYS

Comment #141: Category 1

The distribution of activities relative to the IAEA scheme was based upon known activities of low activity uranium containing waste. Most of this waste has activities below 400 Bq/g, therefore it is considered as near surface disposal waste (i.e. LILW-SL). Some Americium 241 waste from neutron generators and guages have activities >4000 Bq/g. This is LILW-LL (about 2% by volume)

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Chile, Republic of   Reporting Year: 2006

Reporting Group: **UGDR**

Inventory Reporting Date: December 2006

Waste Matrix Used: CHILECLASS

Description: UGDR is organized under Chilean Comission for Nuclear Energy (CCHEN) and it is charged with the processing research and developing, as also the operations for collection, treatment, conditioning and storage of all radioactive waste produced in the country due to its own nuclear development which is solely for peaceful purposes. UGDR centralizes its activites in the Metropolitan Region of Santiago, to give the service to all radioactive waste producers in the country.

Site Name	Facility Name	Facilities Defined		
CEN LA	PTDR	processing		
	IADRA		storage	
CEN LR	Caseta LR		storage	
	PozoLR		storage	

REGULATORS

Country: Chile, Republic of

Reporting Year: 2006

Name	C.Ch.E.N.
Full Name	Chilean Comission for Nuclear Energy
Division	Radiological & Nuclear Safety Department
City or Town	Santiago de Chile

Comment #14633: Regulator C.Ch.E.N.

The only organization that counts with facilities and procedures authorized for radioactive waste management in Chile is the Radioactive Waste Management Section which belongs and operates under Chilean Comission for Nuclear Energy. The radioactive waste management is centralized in this organization.

REGULATIONS / LAWS

Country: Chile, Republic of Reporting Year: 2006

Name	Law 18.302	
Title or Name	Ley de Seguridad Nuclear Nº 18.302 (Nuclear safety Law Nº 18.302)	
Reference Number	Law Nº 18.302	
Date Promulgated or Proclaimed	1984-05-02	Law

Comment #231: Definition

Nuclear safety law defines Radioactive waste as all radioactive materials obtained while production process or use of nuclear fuel, or, materials whose radioactivity arises from the radiation exposure of the process, the radioisotopes which have become to final step in its elaboration, are going to be rejected.
Also, the Law defines radioactive material as every material that has an specific activity higher than 0.002 Ci per gram.

Comment #232: Definition

Nuclear safety law defines Radioactive waste as all radioactive materials obtained while production process or use of nuclear fuel; or, materials whose radioactivity arises from the radiation exposure of the process; and the radioisotopes which have become to final step in its elaboration, which are going to be rejected.
Also, the Law defines radioactive material as every material that has an specific activity higher than 0.002 Ci per gram.

Name	Reg 133	
Title or Name	Reglamento sobre autorizaciones para instalaciones radiactivas o equipos generadores de radiaciones inizantes y personal que se desempeña en ellas, u opere tales equipos u otras actividades afines. (Regulation on authorization for radioactive facilities or ionizing radiation generation equipments and people working there, or who operate those equipments and other related activities).	
Reference Number	Regl. Nº 133	
Date Promulgated or Proclaimed	1984-05-22	Regulation

Comment #237: Authorization

The Regulation establishes conditions and requirements that radioactive facilities or ionizing radiation generation equipmentsand .... have to comply with regard to importing, exporting, distribution and sale of radioactive materials used or maintained at radioactive facilities or at ionizing radiation generation equipments and the reject of radioactive materials" it says:
: "
TITULO I
Disposiciones Generales
Artículo 1.- El presente reglamento establece las condiciones y requisitos que deben cumplir las instalaciones radiactivas o los equipos generadores de radiaciones ionizantes, el personal que se desempeñe en ellas u opere estos equipos, la importación, exportación, distribución y venta de las sustancias radiactivas que se utilicen o mantengan en las instalaciones radiactivas o en los equipos generadores de radiaciones ionizantes y el abandono o desecho de sustancias radiactivas. "

REGULATIONS / LAWS

Country: Chile, Republic of Reporting Year: 2006

Name	DFL 725	
Title or Name	Código sanitario (Health Officer Code)	
Reference Number	DFL Nº 725	
Date Promulgated or Proclaimed	1968-01-31	Regulation

Comment #248: Rad. materials

This Decret covers radioactive facilities in which radioactive materials are processed, treated, handeled, stored.

Name	Law 19.300	
Title or Name	Ley de bases del medioambiente. (Environmental Basic Law)	
Reference Number	Law Nº 19.300	
Date Promulgated or Proclaimed	1997-04-01	Law

Comment #249: Art.10ª

It defines the activities that can cause dammage to environmantal and lists waht are to be submitted to the environmental impact assessment. It mentions "production, storage, transport, disposal, or reuse of toxic, explosive, radioactive, flammable, corrosives substances.

Name	Dec.30	
Title or Name	Reglamento del Sistema de evaluación e impacto ambiental. (Reg. on Environmental assessment Impact)	
Reference Number	Dec. Nº 30	
Date Promulgated or Proclaimed	1997-04-03	Regulation

Name	NCS-DR-01	
Title or Name	Norma de Seguridad CCHEN : NCS-DR-01 Gestión de desechos radiactivos. (Radioactive waste management. CCHEN safety Standard.	
Reference Number	NCS-DR-01	
Date Promulgated or Proclaimed	1987-06-02	Regulation

MILESTONES

Country: Chile, Republic of Reporting Year: 2006

Start Year or Reference Year:	1989	End Year	1989
Description of Milestone			
A Storage building (on surface) for conditioned radioactive waste is finished. It is a concrete and steal building, with internal structures to stand 200 l drums in an horizontal way.			

Start Year or Reference Year:	1990	End Year	1990
Description of Milestone			
The Radioactive Waste Management Unit is created under the Chilean Comission for Nuclear Energy organization, with the purpose of centralizing all activities related to radioactive waste management in the country.			

Start Year or Reference Year:	1992	End Year	1992
Description of Milestone			
A Radioactive Waste Treatment Plant is built and started up. Low and intermadiate activity waste are processed : spent sealed sources and solid waste. (volume reduction, immobilization in cements and conditioned).			

Start Year or Reference Year:	1996	End Year	1996
Description of Milestone			
A modification and enlargement of the Radioactive Waste Treatment Plant for the treatment of radioactive liquid waste is built.			

Start Year or Reference Year:	1997	End Year	1998
Description of Milestone			
Spent sealed sources, arised from radiotherapy in Chile, containing Radium 226 were conditioned according to "Radium Conditioning Project" supported by IAEA. The Chilean Team was composed by 2 professionals, 2 technicians and 1 superior welder, plus the IAEA's expert. A quantity of 2,5 Ci of Ra-226 (about 500 units) were conditioned in a retrievable way.			

Start Year or Reference Year:	1997	End Year	1997
Description of Milestone			
The Radioactive Waste Treatment Unit (capacity of facilities and personnel) is evaluated by IAEA, to serve as Demonstration Center for methodologies an procedures in the management of radioactive waste from nuclear applications. The first Demonstration Course for latin America and el Caribe Region is held in 1997. (4 courses are followed after that). The			

Start Year or Reference Year:	1999	End Year	1999
Description of Milestone			
A segregation and characterization laboratory for exempted waste is built annexed to the Storage Facility for Decay.			

Start Year or Reference Year:	2000	End Year	2000
Description of Milestone			
An ion exchange Plant (3 columns of ion exchange resin) to reduce liquid waste volume from nuclear research is installed and started up at Radioactive Waste Treatment Plant.			

Start Year or Reference Year:	2004	End Year	2006
Description of Milestone			
According new safety conditions and necessities to store SSRS containing radioisotopes for which the Conditioning Procedure has not been developed, such as Kr-85, etc., the Radioactive Waste Tratment Plant has been enlarged with a Storage Zone, destinated to SRS, and in a separate zone the liquid waste before conditioning are stored in safe conditions.			

Policies

Country: Chile, Republic of Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Partially
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	No
7	implemented controls over radioactive waste generation	Partially
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Partially
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Partially
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Incomplete
21	implement the licensing process	Complete
22	advise the government	Incomplete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Policies

Country: Chile, Republic of **National Systems** Reporting Year: 2006

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Partially
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	No
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	Yes

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some

Country Waste Profile Report for

China

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

This page generated at 2007-10-29 16:22:47 (local Vienna time.)

Country Waste Profile Report for

Croatia

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-03-03 17:20:34

Waste Class Matrix(ces) Used/Defined

Country: Croatia, Republic of | Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: National

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
LILW-SL	100	0	0
LILW-LL	0	100	0
HLW	0	0	100

Description: A new national classification matrix derived from the classification schema defined by the new "Regulation on radioactive waste management" (draft)

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB’s definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Croatia, Republic of Reporting Year: 2006

Reporting Group: **IMI**

Inventory Reporting Date: December 2006

Waste Matrix Used: National

Description: Institute for Medical Research and Occupational Health (MI) is a national institute dedicated to occupational health. It was the first institution that started with activities related to radiation protection. As a product of those activities, there is a (now closed) storage of disused sealed sources. For more information see: www.imi.hr

Site Name	Facility Name	Facilities Defined		
IMI	SRM		storage	

Reporting Group: **IRB**

Inventory Reporting Date: December 2006

Waste Matrix Used: National

Description: Institute Rudjer Boskovic (IRB) is the largest Croatian research centre in sciences and science applications. It is a national institution dedicated to research, higher education, support to the academic community, state and local governments and technology-based industry. For more information see: www.irb.hr

Site Name	Facility Name	Facilities Defined		
IRB	TSRM		storage	

Reporting Group IMI, Site Structure: IMI

Country: Croatia, Republic of Reporting Year: 2006

Full Name: Institute for Medical Research and Occupational Health

Location: Ksaverska cesta 2, P.O. Box 291
HR-10001 ZAGREB
CROATIA

License Holder(s) : not licensed, decommissioned

The following list the waste management facilities that are located at this site.

Facility: SRM

Description	Storage of Radioactive Material

Storage part of the "SRM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	No			

List SRS?	No
Capacity	The storage has been decommissioned.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRM	bunker	1959	Yes	No	No	Yes

Comment #9928: Storage Facility SRM

Closed interim storage of disused radioactive sources at the Institute for medical research and Occupational Health Zagreb, Ksaverska cesta 2 (IMI) had been used for 40 years until 2000. Storage is on the northern side behind the main Institute's building. The storage is adapted ex-atomic shelter built during 1950's consisting of several underground corridors and rooms.
IMI from 1959 render services in radiation protection. Until 1990 IMI was the only institution authorized to render this kind of services to all users in Croatia. These services also included consultancy related to and handing over of disused radioactive sources from the users when they asked for such service. Over the years many disused radioactive sources were transferred to IMI and placed into the IMI storage. The sources originate from lightning rods, smoke detectors, medical equipment and industrial gauges. The entrance is behind the main building. A locked metal door controls access. The reception desk located at the entrance of the IMI main building is permanently staffed and keys are kept there.

Before the remediation 2006, there was no intrusion detection, water was observed on the floor and there was no formal and accurate inventory. Radiation could be detected outside the closed door.

Within the timeframe June 06th to 30th 2006, Ekoteh Dosimetry Co. Radiation Protection, Zagreb, Vladimira Ruzdjaka 21, organised and performed works according to the "Plan and Program of Conditioning, Characterisation, Segregation and Packing in Lead Containers of Spent Radioactive Sources from the Temporary Storage Facility of the 'IMI', Zagreb, Ksaver 2", submitted on June 2nd 2006 to the SORP, as ordered by the IAEA according to the contract No. 2006-0469-150 from March 30th 2006.

Reporting Group IRB, Site Structure: IRB

Country: Croatia, Republic of Reporting Year: 2006

Full Name: Institute Rudjer Boskovic

Location: Bijenicka cesta 54, P.O.Box 180
HR-10002 ZAGREB
CROATIA

License Holder(s) : Institute Rudjer Boskovic

The following list the waste management facilities that are located at this site.

Facility: TSRM

Description	Storage of Radioactive Material

Storage part of the "TSRM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			

List SRS?	Yes
Capacity	Capacity is about 20 years at the current rate of usage

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TSRM	building	1967	No	No	Yes	Yes

REGULATORS

Country: Croatia, Republic of

Reporting Year: 2006

Name	MH
Full Name	Ministry of Health and Social Welfare
Division	Sanitary Inspection Department
City or Town	ZAGREB

Name	SORP
Full Name	State Office for Radiation Protection
Division	
City or Town	Zagreb

Comment #9698: Regulator DZZZ

All regulatory functions except inspection. Currently, the inspection is within the competence of MH.

REGULATIONS / LAWS

Country: Croatia, Republic of Reporting Year: 2006

Name	STRUCTURE	
Title or Name	Act on the Structure and Scope of Ministries and State Administration Organisations	
Reference Number	Off. Gazette 199/2003, 30/2004	
Date Promulgated or Proclaimed	2003-12-22	Law

Name	RAD. PROT.	
Title or Name	Act on Protection Against Ionising Radiation	
Reference Number	Off. gazette . 27/1999	
Date Promulgated or Proclaimed	1999-03-05	Law

Comment #12174: Regulation RAD. PROT.

Now replaced by the new ACT ON IONISING RADIATION PROTECTION AND SAFETY OF IONISING RADIATION SOURCES (Off. gazette . 64/2006). (See the attachment.)

Attachment #1281: ACT ON IONISING RADIATION PROTECTION AND SAFETY OF IONISING RADIATION SOURCES (Off. gazette . 64/2006)

File name: ACT-RPROT.pdf

File type: PDF Document

Name	WASTE M.	
Title or Name	Regulation on Procedures for Collecting, Accounting, Treatment, Final Disposal and Release of Radioactive Waste Materials into Human Environment	
Reference Number	Off. Gazette 62/1986, 53/1991	
Date Promulgated or Proclaimed	1991-06-28	Regulation

Policies

Country: Croatia, Republic of — Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	No

Comment #9929: Policies National Systems-Policy

Croatia has not developed a national radioactive waste management policy. It is obliged to do so by the end of 2007. Annual waste arising in the country has been assessed, according to which the waste management policy will be tailored, having in mind best available cost-benefit options.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	No

Comment #14735: Policies National Systems-Strategies

A strategy to implement national policy will be developed along with national waste management policy.

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Partially
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Partially
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	No
12	implemented formal mechanisms for disseminating information to the public and for public consultation	No

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete

22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Incomplete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Partially
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Partially
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	No
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Partially
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Partially
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Partially
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Partially

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	No
41	Environmental Impact Statement (EIS)	No
42	Performance Assessment (PA)	No
43	Quality Assurance (QA)	No
44	Safety Assessment (SA)	No

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	No
61	waste minimization	No
62	waste storage	No
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	No
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	Yes

Policies

Country: Croatia, Republic of | **Spent SRS** | Reporting Year: 2006

74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	Yes

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	No

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	No

Country Waste Profile Report for
Cuba
Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 15:01:49

Waste Class Matrix(ces) Used/Defined

Country: Cuba, Republic of

Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #171: Waste Classification Scheme

The waste classification scheme defined in Cuban National Regulation (Regulation for the Safe Management of Radioactive Waste, Res 35/2003) is similar to the IAEA Def matrix. But there is not high level waste in Cuba.

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Cuba, Republic of Reporting Year: 2006

Reporting Group: **CPHR**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Center for Radiation Protection and Hygiene

Site Name	Facility Name	Facilities Defined		
Repository	Repository			disposal
RWMF	WPF	processing		
	WSF		storage	

Comment #180: Reporting group

The Center for Radiation Protection and Hygiene (CPHR) is the institution responsible for radioactive waste management in Cuba

Reporting Group CPHR, Site Structure: Repository

Country: Cuba, Republic of Reporting Year: 2006

Full Name: Repository for final disposal of radioactive waste

Location: Central region of Cuba

License Holder(s) :

Comment #230: Repository

The repository was planned for the final disposal of low and intermediate level radioactive wastes from Juragua Nuclear Power Plant and nuclear applications. The construction of the NPP was stopped, as well as the studies regarding this repository.

The following list the waste management facilities that are located at this site.

Facility: Repository

Description	Repository for final disposal of radioactive wastes

Disposal part of the "Repository" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	Yes
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	12300
Depth (m)	15		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1990	1994
site selection		1994	1997

Reporting Group CPHR, Site Structure: RWMF

Country: Cuba, Republic of Reporting Year: 2006

Full Name:	Radioactive Waste Management Facility
Location:	Managua, Ciudad de la Habana
License Holder(s) :	Center for Radiation Protection and Hygiene, Calle 20 No. 4113 Playa C. Habana

Comment #181: RWMF

Radioactive Waste Management Facility belongs to the Center for Radiation Protection and Hygine, which is the License Holder

The following list the waste management facilities that are located at this site.

Facility: WPF

Description	Waste Processing Facility, includes compaction of solid waste, immobilization by cementation of liquid waste and non compactible solids and conditioning of spent sealed sources.

Processing part of the "WPF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1999

Facility: WSF

Description	Waste storage facility, includes conditioning and non conditioning radioactive waste storage in an above ground construction. Disused sealed sources are also stored in this facility.

Storage part of the "WSF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			
List SRS?	Yes				
Capacity	Sufficient capacity for at least 10 years is available.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RW Storage	silo	1990	No	No	No	Yes

Comment #7242: Storage facility

The Storage facility contains conditioning and non conditioning radioactive waste and disused sealed sources.

Reporting Group CPHR, Site Data: RWMF

Country: Cuba, Republic of Reporting Year: 2006

Full Name: Radioactive Waste Management Facility

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location / Form	Proc.	Volume (m3)	Distribution in % RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage Liquid	No	2.98	0	0	0	100	0	0	0	No
LILW-SL	Storage Solid	No	29.86	0	0	0	32	0	68	0	No
LILW-SL	Storage Solid	Yes	2.8	0	0	0	100	0	0	0	No
Comment #4899: The additional characteristics of the waste Unprocessed: solid (non-dispersible), solid (dispersible), liquid (aqueous), liquid (organic).											
LILW-LL	Storage Solid	No	4.5	0	0	0	42	0	58	0	No
LILW-LL	Storage Solid	Yes	0.2	0	0	0	0	0	100	0	No
Comment #4900: The additional characteristics of the waste Unprocessed: solid (non-dispersible), solid (dispersible), liquid (aqueous), liquid (organic).											

Processing - Treatment method(s)

Method	Status: Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			decrease	

Processing - Conditioning method(s)

Method	Status: Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	Yes			
Containerization			same	

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq): Group I less than or equal 4GBq num./activity	Group II more than 4GBq but less than or equal 4E+4GBq num./activity	Group III more than 4E+4GBq num./activity	cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
Sr-90	641			No	Yes	5	2.20E+00	
	2.20E+00							
Sr-90	575	2		Yes	No	5	2.39E+02	
	1.19E+01	2.27E+02						
Sr-90	35			No	Yes	4	3.24E+01	
	3.24E+01							
Sr-90	212			Yes	No	4	3.76E+02	
	3.76E+02							
Pb-210	70			Yes	No	5	1.96E-03	
	1.96E-03							
Kr-85	325			No	Yes	5	7.00E-01	
	7.00E-01							
Kr-85	15			Yes	No	5	2.96E-03	
	2.96E-03							
Kr-85	1	1		No	Yes	4	1.68E+01	
	2.00E+00	1.48E+01						

Kr-85	2 4.63E+00			Yes	No	4	4.63E+00	
Hg-203	2 1.48E-03			Yes	No	5	1.48E-03	
H-3	9 1.67E-03			No	Yes	5	1.67E-03	
H-3		18 1.20E+02		Yes	No	5	1.20E+02	
Eu-154	2 2.14E+00			Yes	No	4	2.14E+00	
Eu-152	2 4.40E-04			Yes	No	5	4.40E-04	
Cs-137	7 7.70E-01			No	Yes	5	7.70E-01	
Cs-137	92 5.00E+00			Yes	No	5	5.00E+00	
Cs-137	8 1.49E+01	5 7.54E+01		No	Yes	4	9.03E+01	
Cs-137	133 1.55E+02	233 1.22E+04		Yes	No	4	1.24E+04	
Cs-137	4 6.76E+00	1 1.85E+02		No	Yes	3	1.92E+02	
Cs-137	60 1.02E+02	259 4.56E+04		Yes	No	3	4.57E+04	
Cs-137		20 3.48E+03		No	Yes	2	3.48E+03	
Cs-137		57 1.24E+04		Yes	No	2	1.24E+04	
Cs-137		5 5.55E+04		Yes	No	1	5.55E+04	
Co-60	53 8.00E-01			No	Yes	5	8.00E-01	
Co-60	188 1.17E+01	1 1.30E+01		Yes	No	5	2.47E+01	
Co-60	9 1.66E+01	2 4.56E+01		No	Yes	4	6.22E+01	
Co-60	17 1.51E+01	1 3.70E+01		Yes	No	4	5.21E+01	
Co-60		9 4.81E+02		No	Yes	3	4.81E+02	
Co-60	14 4.97E+01	27 1.30E+03		Yes	No	3	1.35E+03	
Co-60	2 2.60E+00	11 7.08E+02		No	Yes	2	7.11E+02	
Co-60	43 8.11E+01			Yes	No	2	8.11E+01	
Co-60		6 2.10E+05	14 3.70E+06	No	Yes	1	3.91E+06	
Co-60			4 1.25E+06	Yes	No	1	1.25E+06	
Cf-252 Neutron Gen.	6 6.20E-01			No	Yes	5	6.20E-01	

Ba-133	6			Yes	No	5	1.52E-02	
	1.52E-02							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq) Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	num./activity	num./activity					
Am-241 Neutron Gen.		2	No	Yes	5	2.22E+02	
		2.22E+02					
C-14	6		No	Yes	5	8.16E-04	
	8.16E-04						
Ra-226	38		Yes	No	5	8.80E-01	
	8.80E-01						
Ra-226	1036		Yes	No	4	1.78E+02	
	1.78E+02						
Pu-239 Neutron Gen.		5	No	Yes	3	1.34E+03	
		1.34E+03					
Pu-239	36		No	Yes	5	1.85E-02	
	1.85E-02						
Pu-238 Neutron Gen.	2		No	Yes	4	2.40E+00	
	2.40E+00						
Pu-238 Neutron Gen.	1	4	No	Yes	3	7.21E+02	
	1.20E+00	7.20E+02					
Pu-238	12		No	Yes	5	8.51E+00	
	8.51E+00						
Pu-238	7		No	Yes	4	7.12E+00	
	7.12E+00						
Ni-63	4		Yes	No	5	1.55E+00	
	1.55E+00						
I-129	1		Yes	No	5	3.70E-06	
	3.70E-06						
C-14	5		Yes	No	5	2.80E-05	
	2.80E-05						
Am-241 Neutron Gen.	6		No	Yes	4	1.15E+01	
	1.15E+01						
Am-241 Neutron Gen.	2	20	No	Yes	3	1.69E+03	
	1.11E+00	1.69E+03					
Am-241	10099	1	No	Yes	5	9.56E+00	
	2.16E+00	7.40E+00					
Am-241	8465		Yes	No	5	1.66E+01	
	1.66E+01						
Am-241	4	9	Yes	No	4	5.40E+01	
	7.40E+00	4.66E+01					
Am-241	6		Yes	No	3	4.06E+00	
	4.06E+00						

Multiple Nuclides Spent Sources in storage

Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date

Reporting Group CPHR, Site Data: RWMF

Country: Cuba, Republic of Reporting Year: 2006

Am-241	1.000E-04				
Sr-90	1.000E-04				

REGULATORS

Country: Cuba, Republic of Reporting Year: 2006

Name	CNSN
Full Name	National Center for Nuclear Safety
Division	
City or Town	Havana

Comment #7240: Establishment of Regulatory Authority

The Decree-Law 207:”On the use of nuclear energy” establishes, in the article 4 that the Minister of Science Technology and the Environment (CITMA) is responsible for supervising, implementing and controlling the Government policy regarding the use of nuclear energy. The regulation and control for the safe use of nuclear energy and for the control of nuclear materials is implemented through the National Center for Nuclear Safety (CNSN).

REGULATIONS / LAWS

Country: Cuba, Republic of | Reporting Year: 2006

Name	DL-207	
Title or Name	On the Use of Nuclear Energy	
Reference Number	Decree - Law 207	
Date Promulgated or Proclaimed	2000-02-17	Law

Comment #289: Decree Law 207 and HLW

Although there is not HLW at present in Cuba, the Decree Law 207 includes spent fuel.

Name	Res-121	
Title or Name	Regulation for the Safe Transport of Radioactive Materials	
Reference Number	Resolution 121/2000 CITMA	
Date Promulgated or Proclaimed	2000-12-15	Regulation

Name	Res-25	
Title or Name	Regulation for the Authorization of Practices Associated with the Use of Ionizing Radiation	
Reference Number	Resolution 25/98	
Date Promulgated or Proclaimed	1998-07-06	Regulation

Name	Law 81	
Title or Name	Law 81 on the Environment	
Reference Number	Law 81	
Date Promulgated or Proclaimed	1997-07-11	Law

Name	Res-35	
Title or Name	Regulation for the safe management of radioactive waste	
Reference Number	Resolution 35 / 2003 CITMA	
Date Promulgated or Proclaimed	2003-03-10	Regulation

REGULATIONS / LAWS

Country: Cuba, Republic of Reporting Year: 2006

Name	Cuban BSS	
Title or Name	Cuban Basic Safety Standards	
Reference Number	Join Resolution CITMA MINSAP	
Date Promulgated or Proclaimed	2002-01-04	Regulation

Name	Guide01/04	
Title or Name	Unconditional Clearance Levels for solid materials with low radioactive content and for liquid and gas discharges to the environment	
Reference Number	Resolution 01/2004 CNSN	
Date Promulgated or Proclaimed	2004-01-09	Regulation

Comment #9778: Regulation Guide01/04

This is a guidance document that supports the Regulation for Radioactive Waste Management (Resolution 35/2003). The criteria for unconditional clearance, as well as unconditional clearance levels are contained in this guide, as they are not included in the regulation

Name	Guide02/04	
Title or Name	Guidance for the implementation of the Regulation for the Safe Transport of Radioactive Materials	
Reference Number	Resolucion 2/2004 CNSN	
Date Promulgated or Proclaimed	2004-01-15	Regulation

Name	Personnel	
Title or Name	Regulation for selection, training and authorization of personnel executing practices associated with the use of ionizing radiation	
Reference Number	Joint Resolution CITMA MINSAP	
Date Promulgated or Proclaimed	2004-03-24	Regulation

Name	Res-58	
Title or Name	Prohibition on the importation of and other regulations for the use of lighting rods	
Reference Number	Resolution 58/2003 CITMA	
Date Promulgated or Proclaimed	2003-07-22	Regulation

REGULATIONS / LAWS

Country: Cuba, Republic of Reporting Year: 2006

Name	Res-96	
Title or Name	Regulation for the import, distribution, assembly and use of smoke detectors	
Reference Number	Resolution 96/2003 CITMA	
Date Promulgated or Proclaimed	2004-02-16	Regulation

Name	Res-6	
Title or Name	Regulation for the recognition of competence of the services for radiation safety	
Reference Number	Resolution 6/2004 - CITMA	
Date Promulgated or Proclaimed	2004-01-13	Regulation

Name	DL-208	
Title or Name	On the National System for accounting and control of nuclear materials	
Reference Number	Decree 208	
Date Promulgated or Proclaimed	1996-05-24	Law

Name	Res-62	
Title or Name	Regulation for the accounting and control of nuclear materials	
Reference Number	Resolution 62/96 CITMA	
Date Promulgated or Proclaimed	1996-07-12	Regulation

Name	ScrapMetal	
Title or Name	Regulation for the control on the import and export of scrap metal	
Reference Number	Joint Resolution CITMA-MINCEX	
Date Promulgated or Proclaimed	2002-04-29	Regulation

MILESTONES

Country: Cuba, Republic of Reporting Year: 2006

Start Year or Reference Year:	1985	End Year	
Description of Milestone			
First conditioning activities were carried out in the country. Solid and liquid radioactive waste generated in research activities were immobilized.			

Start Year or Reference Year:	1986	End Year	2004
Description of Milestone			
A facility in the Oncology Hospital, contaminated with Cs-137 was decommissioned. It was a former brachytherapy facility that was used as storage facility for disused sealed sources at the beginning of eighties.			

Start Year or Reference Year:	1988	End Year	1991
Description of Milestone			
The construction of the Waste Processing and Storage Facility (WPSF). The WPSF was put into operation in 1988 and the centralized collection of radioactive waste was implemented around the country. The first two collections of disused sealed radioactive sources were carried out in 1988 and 1991.			

Start Year or Reference Year:	1995	End Year	1997
Description of Milestone			
A National Technical Cooperation Project was developed with the IAEA. The necessary equipment for waste characterization, radiation protection and for quality and process control at the Waste Treatment and Storage Facility was supplied under this project. A number of personal were trained as part of this TC Project.			

Start Year or Reference Year:	1996	End Year	1997
Description of Milestone			
Radiological characterization of unknown disused sealed sources			

Start Year or Reference Year:	1996	End Year	1997
Description of Milestone			
Chemical and radiological characterization of centralized, stored low-level liquid waste.			

Start Year or Reference Year:	1997	End Year	2002
Description of Milestone			
Establisment of a Quality Management System (QMS) for the radioactive waste management service, including all the stages: from collection of waste until storage as conditioned packages. The QMS was internally certified in the Center for Radiation Protection and Hygiene, according to the ISO 9001 Standard			

Start Year or Reference Year:	1999	End Year	2000
Description of Milestone			
Decommissioning of a brachytherapy facility at the Oncology Hospital in Havana. This facility used Ra-226 sources for the brachytherapy service.			

Start Year or Reference Year:	1999	End Year	2000
Description of Milestone			
Development of the acceptance requirements for the wastes that will be collected from the users. Wastes are segregated at the point of origin in accordance with established classification.			

Start Year or Reference Year:	1999	End Year	2001
Description of Milestone			
Establishment of requirements and methods for low and intermediate level waste package acceptability in the storage facility.			

MILESTONES

Country: Cuba, Republic of Reporting Year: 2006

Start Year or Reference Year:	1999	End Year	2001
Description of Milestone			
The safety analysis of the present Storage Facility was carried out in order to evaluate the possibility to use it as long term storage.			

Start Year or Reference Year:	1999	End Year	
Description of Milestone			
The Waste Processing Facility was put into operaction. The facility is now licensed for compaction of solid waste, conditioning of disused sealed sources (except Ra-226) and storage of radioactive waste and disused sealed sources.			

Start Year or Reference Year:	2002	End Year	2004
Description of Milestone			
The Regulation for the Safe Management of Radioactive Waste was developed and implemented in March 2003. The Guide "Unconditional Clearance Levels for solid materials with low radioactive content and for liquid and gas discharges to the environment" implemented in 2004			

Start Year or Reference Year:	2005	End Year	2006
Description of Milestone			
A National Technical Cooperation Project was developed with the IAEA. The objective was to improve waste management activities in the country, mainly at generator institutions.			

Start Year or Reference Year:	2005	End Year	
Description of Milestone			
A radiochemical laboratory at the International Center for Neurological Restoration (CIREN) was decommissioned. This laboratory used 14C for radiochemical basic research, but this practice concluded and the institution requested the release of this facility from regulatory control. Decommissioning services were provided by the CPHR.			

Start Year or Reference Year:	2007	End Year	
Description of Milestone			
The Ra-226 disused radioactive sources were conditioned according to the IAEA recomendations			

Policies

Country: Cuba, Republic of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #233: Policy

The national policy for radioactive waste management is developed in accordance with the objective and principles established in the IAEA Safety Series No. 111-S-1.
There exist in the country the adequate capabilities for the safe management of radioactive waste:
The National Center for Nuclear Safety (The Regulatory Body) is responsible for the licensing and supervision of radioactive and nuclear installations and for the control of generated radioactive waste.
There is a Waste Processing and Storage Facility adequate to the amount and types of radioactive waste generated in the country.
The required regulatory infrastructure was created (including Laws and Regulations) for the control of radioactive waste.
The Center for Radiation Protection and Hygiene is responsible for centralized collection, transportation, treatment, conditioning and long term storage of radioactive waste, as well as for developing new waste conditioning and containment methods

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Comment #234: Strategies

Radioactive waste management is one of the topics in the strategy of the Minister of Science Technology and Environment for the next five year. New research programmes will be developed with the aims of improving operational and regulatory capabilities for dealing with radioactive waste.

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

Comment #235: Interdependencies

The existing facility for radioactive waste management is adequate for the amount and types of generated radioactive waste. The wastes are segregated in the point of origin according to their characteristics and existing methods for treatment and conditioning.

Comment #236: Resources

Final disposal of radioactive wastes is financed by the Government (who will centralized a budget provided by the licensed institutions), meanwhile the other steps of radioactive waste management are financed by the waste generators and the Center for Radiation Protection and Hygiene. Research programmes and regulatory activities are financed by the Minister of Science, Technology and Environment. The Government, through the Minister of Education, is responsible for guarantying the personal capabilities.

	Responsibilities	(Complete;Incomplete)
Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.		
Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes

37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes

If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below

Attachment #1283: The Safety Guide 01/2004 of the Regulatory Authority establishes the unconditional clearance levels for solid materials with very low activity content and for release of liquids and gases to the environment

File name: Guiadesechos.pdf

File type: PDF Document

Member State's Reference # Guide 01/2004 CNSN

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

Comment #239: Disposal facility - Policy

Although there is not in operation any disposal facility in the country, these topics are included in environmental regulations and radiation safety regulations that apply to the management of radioactive wastes.

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

Comment #240: Waste Acceptance Criteria

There is not any disposal facility for radioactive waste in operation in the country. Nevertheless the Waste Acceptance Criteria, Waste Package Specifications and Control Methods are defined for the operating storage facility.

	Post-Closure	(Yes;No)

48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

Comment #241: Procedures

The centralized Waste Processing and Storage Facility has implemented a Quality Assurance programme including all these operations. A Safety Guide was issued for generators, explaining the way they have to manage radioactive wastes.
There is not nuclear fuel cycle waste in the country.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	No
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	Yes
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

Comment #242: Spent SRS

The Regulation for the Safety of Radioactive Waste Management establishes in the Article 59: "The Licensee who imports a sealed radioactive source shall take the reasonable measures to return the source to the supplier once it has been declared disused. For this purpose, an agreement shall be signed between the Licensee and the Supplier. Should this not be the case, the disused sealed source shall be transferred to a waste management facility.

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

Comment #243: Return the SRS

The agreements for returning the spent sealed radiation sources to their supliers do not cover all the SRS that are in use at present.

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Comment #244: Import of RadWaste

The Law 81, On the Environment, defined that the import of radioactive wastes required the authorization of the Minister of Science, Technology and Environment. The export is not covered in the Law.

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

Comment #245: Decommission

Decommissioning activities in the country are financed by the Government and the institutions where the decommissioning is carried out.

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - All

Comment #7241: Time frame for decommissioning

Decommissioning activities performed up to now in the country have shown that the decommissioning of radioactive facilities could not be carried out inmediately after shutdown because the necessary resources were not available.

Country Waste Profile Report for
Czech Republic
Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-27 10:31:25

Waste Class Matrix(ces) Used/Defined

Country: Czech Republic | Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: cz-eu

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
TRW	100	0	0
LILW-SL	100	0	0
LILW-LL	0	100	0
HLW	0	0	100

Description: TRW - >Temporary waste, whose activity after 5 years storage does not exceed the clearance levels.
LILW-SL > Low and intermediate-level waste-short-lived contains radionuclides with half-life shorter than 30 years and with a maximal mass activity of long-lived alpha emitters of 4 kBq/g
LILW-LL -> Low and intermediate-level waste long-lived exceeds limits for LILW-SL
HLW-> High-level waste waste for which heat generation from radionuclide decay must be taken into account

Comment #7186: Waste classification

Solid radioactive waste shall be classified into three basic categories, namely temporary, low-level and intermediate-level, and high-level wastes.

Temporary radioactive waste shall be such waste whose radioactivity after long-term storage (maximum 5 years) does not exceed the clearance levels.

High-level radioactive waste shall be waste for which heat generation from radionuclide decay of the radionuclides contained must be taken into account during its storage and disposal.

Other radioactive waste shall be classified as low and intermediate-level waste. Low and intermediate-level waste is classified into two subcategories. The first subcategory is short-lived waste, in which the half-life of radionuclides contained is shorter than 30 years (including Cs-137) with a limited mass activity of long-lived alpha emitters (in individual packages a maximum of 4000 kBq/kg, and a mean value of 400 kBq/kg in the total volume of waste produced in a calendar year). The other subcategory is long-lived waste, that is waste not ranking in the short-lived radioactive waste subcategory.

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Czech Republic Reporting Year: 2006

Reporting Group: **Institutes**

Inventory Reporting Date: December 2006

Waste Matrix Used: cz-eu

Description: Research institutes, radiochemical laboratories, industrial facilities etc.

Site Name	Facility Name	Facilities Defined		
Chemcomex	Hall I.	processing		
ISOTREND	Hall	processing		
UJP Praha	Hall I	processing		
	RAW store		storage	
UJV Rez	VZ	processing	storage	
	Cerv.skala		storage	
	Prekladist		storage	
	Sklad VAO		storage	
VF	TC	processing	storage	
	UJP	processing	storage	
Zamservis	SRS	processing		

Comment #7078: Additional information

predisposal radioactive waste management, electrical and electronical devices installation and maintenance

Reporting Group: **NPPs**

Inventory Reporting Date: December 2006

Waste Matrix Used: cz-eu

Description: Nuclear power plants

Site Name	Facility Name	Facilities Defined		
EDU	SVO	processing		
	ZRAO	processing		
	BAPP	processing	storage	
ETE	BPP	processing	storage	

Groups Overview

Country: Czech Republic Reporting Year: 2006

Reporting Group: **SURAO**

Inventory Reporting Date: December 2006

Waste Matrix Used: cz-eu

Description: Radioactive Waste Repository Authority

Site Name	Facility Name	Facilities Defined		
Bratrstvi	URAO B			disposal
Dukovany	URAO D			disposal
Hostim	URAO H			disposal
Richard	URAO R		storage	disposal

Comment #359: Status and activities of SURAO

To provide for activities associated with radioactive waste disposal, the Ministry of Industry and Trade set up a Radioactive Waste Repositories Authority (hereinafter referred to as "SURAO") as a State organisation. The Authority shall carry out particular activities in radioactive waste management based on a licence under Atomic Act (Act No. 18/1997).

The SURAO shall engage in the following activities

a) preparation, construction, commissioning, operation and closure of radioactive waste repositories and monitoring of their impact on the environment;

b) radioactive waste management;

c) conditioning of spent or irradiated nuclear fuel into a form suitable for its disposal or further utilisation;

d) keeping records of radioactive waste receipts and their generators;

e) administration of payments to the nuclear account;

f) drafting of proposals for determination of payments to the nuclear account;

g) provision for and co-ordination of research and development in the field of radioactive waste management;

h) monitoring of reserves of licensees for decommissioning of their installations;

i) provision of services in the field of radioactive waste management;

j) management of radioactive waste transported to the territory of the Czech Republic from abroad when it is not possible to return it;

k) provision of temporary administration in the case of radioactive waste that, under a specific Act, has become State property; if these are items that were found, left or hidden, the Authority is entitled also to accept them, instead of a State body determined by a specific Act.

Reporting Group Institutes, Site Structure: Chemcomex

Country: Czech Republic Reporting Year: 2006

Full Name: Chemcomex Praha, a. s.

License Holder(s) : Chemcomex Praha, a. s.

Comment #14564: Site Chemcomex

The licensee performs according to the valid SUJB license collection, segregation, treatment, conditioning and storage of radioactive waste containing uranium.

The following list the waste management facilities that are located at this site.

Facility: Hall I.

Description	Waste management and storage facility at UJP Praha a. s. site

Processing part of the "Hall I." facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	Yes	Yes	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1966

Reporting Group Institutes, Site Data: Chemcomex

Country: Czech Republic Reporting Year: 2006

Full Name: Chemcomex Praha, a. s.

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Waste Inventory

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Filtration			decrease	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			decrease	

Reporting Group Institutes, Site Structure: ISOTREND

Country: Czech Republic Reporting Year: 2006

Full Name: ISOTREND s.r.o.

License Holder(s) : ISOTREND s.r.o.

Comment #395: Activity

Assembly, checks, maintenance and distribution of radionuclide sources, predisposal operation in radioactive waste management

The following list the waste management facilities that are located at this site.

Facility: Hall

Description	Waste treatment and conditioning facility

Processing part of the "Hall" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1981

Comment #14563: Processing Facility Hall

The facility is in operation since 1981 (Institute for Research, Production and Utilisation of Radioisotopes) and from 1992 is a part of newly established Isotrend company.

Reporting Group Institutes, Site Data: ISOTREND

Country: Czech Republic Reporting Year: 2006

Full Name: ISOTREND s.r.o.

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination			decrease	
Size Reduction			decrease	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			decrease	
Encapsulation			decrease	

Reporting Group Institutes, Site Structure: UJP Praha

Country: Czech Republic Reporting Year: 2006

Full Name: UJP Praha a. s.

License Holder(s) : UJP Praha a. s.

The following list the waste management facilities that are located at this site.

Facility: Hall I

Description	Waste management equipment is placed in Hall I.

Processing part of the "Hall I" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1966

Comment #14558: Processing Facility Hall I

The licensee performs according to the valid SUJB license collection, segregation, conditioning and storage of waste.

Facility: RAW store

Description	Storage facility for the temporary storage of waste before handling over to disposal (SUJB)

Storage part of the "RAW store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RAW store	building	1966	No	No	No	No

Reporting Group Institutes, Site Data: UJP Praha

Country: Czech Republic | Reporting Year: 2006

Full Name: UJP Praha a. s.

Inventory Reporting Date: December 2006 | Waste Matrix: cz-eu

Waste Inventory

Waste Class	Status
LILW-SL (in Storage)	Waste data available, will not be reported.

Comment #14561: Waste Storage facilities/Class LILW-SL/Site UJP Pr

Waste ise conditioned and after short technological storage handed over to SURAO and disposed.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			decrease	

Comment #14562: Waste conditioning on Site UJP Praha

Waste is collected in 100 l drums which are then placed into 200 l drums backfilled with concrete. There is a surface isolation layer on the top of the concrete matrix.

Reporting Group Institutes, Site Structure: UJV Rez

Country: Czech Republic

Reporting Year: 2006

Full Name: UJV Rez a.s.
(Nuclear Research Institute Rez)

License Holder(s) : UJV Rez a.s.
CZ-250 68 Rez

The following list the waste management facilities that are located at this site.

Facility: VZ

Description	Velke Zbytky: Waste treatment and conditioning plant

Processing part of the "VZ" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	Yes	No	LILW-SL	Yes	No
LILW-LL	Yes	No	HLW	No	No
SRS	Yes	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1962

Storage part of the "VZ" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	Yes	No	LILW-SL	Yes	Yes
LILW-LL	Yes	No	HLW	No	No
SRS	Yes	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
No. 1,2...	tank (stainless steel)	1962	No	No	No	No
St. rooms	building	1962	No	No	No	Yes
No. 29, 30	tank (stainless steel)	1962	No	No	No	No

Reporting Group Institutes, Site Structure: UJV Rez

Country: Czech Republic Reporting Year: 2006

Facility: Cerv.skala

Description	Waste storage facility (Cervena Skala - Red Rock)

Storage part of the "Cerv.skala" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			

List SRS?	No
Capacity	Storage facility can accomodate max. 6 ISO containers with RAW and 100 m3 of solid RAW (technological parts). Total activity - max. 10 GBq.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Cerv.skala	container (ISO)	1988	No	Yes	No	No
Cerv.skala	concrete pad	1988	No	No	No	No

Facility: Prekladist

Description	Waste storage facility (Prekladiste - Reloading facility)

Storage part of the "Prekladist" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	Yes	No	HLW	No	No
SRS	Yes	No			

List SRS?	No
Capacity	Unprocessed waste - max. 800 m3 and 1500 GBq Processed waste - max. 600 m3

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Prekladist	building	1963	No	No	No	Yes

Facility: Sklad VAO

Description	HLW store (Sklad VAO) - facility for storage of spent fuel and LILW with activity exceeding WAC for operating repositories

Storage part of the "Sklad VAO" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	Yes	No	HLW	No	Yes
SRS	Yes	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Sklad VAO	building	1995	No	No	Yes	Yes

Reporting Group Institutes, Site Data: UJV Rez

Country: Czech Republic Reporting Year: 2006

Full Name: UJV Rez a.s.
(Nuclear Research Institute Rez)

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Waste Inventory Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRW	Storage	No	465	40	0	0	30	0	30	0	Yes
TRW	Storage	Yes	440	30	0	0	30	0	40	0	Yes
LILW-SL	Storage	No	837	5	0	0	95	0	0	0	Yes
LILW-SL	Storage	Yes	5.2	90	0	0	10	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Calcination		Yes		
Decontamination		Yes	same	
Evaporation			same	
Radionuclide Separation		Yes		
Shredding and Compaction			same	
Solvent Extraction		Yes		

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization		Yes	same	
Cementation		Yes	same	
Vitrification		Yes		

Reporting Group Institutes, Site Structure: VF

Country: Czech Republic Reporting Year: 2006

Full Name: VF a. s.

License Holder(s) : VF a. s.

The following list the waste management facilities that are located at this site.

Facility: TC

Description	Technological Centre VF, Svitavska 108, Cerna Hora

Processing part of the "TC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	1992

Storage part of the "TC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	Yes	Yes			
List SRS?	No				
Capacity	Storage facility for the temporary storage of SRS before handling over to disposal (SUJB).				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Store	building	1992	No	No	No	Yes

Reporting Group Institutes, Site Structure: VF

Country: Czech Republic Reporting Year: 2006

Facility: UJP

Description	Working place of III. category at UJP Praha a. s.

Processing part of the "UJP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	1992

Storage part of the "UJP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	Yes	Yes			
List SRS?	No				

Capacity	Storage facility for the temporary storage of SRS before handling over to disposal (SUJB)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Store	building	1992	No	No	No	No

Reporting Group Institutes, Site Data: VF

Country: Czech Republic Reporting Year: 2006

Full Name: VF a. s.

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Size Reduction			decrease	

Comment #14559: Waste Treatment on Site VF

SRSs are removed from the encapsulation or equipment and then after decontamination are these structures treated as non-radioactive waste. SRSs are conditioned and after short technological storage handed over to SURAO and disposed.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			decrease	

Comment #14560: Waste conditioning on Site VF

SRSs are placed into 200 l drums backfilled with concrete.

Reporting Group Institutes, Site Structure: Zamservis

Country: Czech Republic Reporting Year: 2006

Full Name: Zamservis s.r.o.

License Holder(s) : Zamservis s.r.o.

Comment #7184: additional information

Electrical and electronical devices installation and maintenance works, predisposal radioactive waste management

The following list the waste management facilities that are located at this site.

Facility: SRS

Description	

Processing part of the "SRS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1997

Reporting Group Institutes, Site Data: Zamservis

Country: Czech Republic Reporting Year: 2006

Full Name: Zamservis s.r.o.

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group NPPs, Site Structure: EDU

Country: Czech Republic Reporting Year: 2006

Full Name: JE Dukovany

License Holder(s) : CEZ a.s

Comment #391: NPP Dukovany

4 PWR of VVER-440-V213 type are installed. Total electrical output is 1760 MW. Physical startup of the 1 unit was in february 1985. Full commercial operation of all units started in January 1988.
NPP is situated 35 km to the SW of the City of Brno.

The following list the waste management facilities that are located at this site.

Facility: SVO

Description	Liquid Waste Treatment Systems

Processing part of the "SVO" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1985

Facility: ZRAO

Description	Conditioning of Liquid Radioactive Waste by Solidification

Processing part of the "ZRAO" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1994

Reporting Group NPPs, Site Structure: EDU

Country: Czech Republic Reporting Year: 2006

Facility: BAPP

Description	Auxiliary building containing waste processing and storage facilities

Processing part of the "BAPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1985

Storage part of the "BAPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TW	tank (stainless steel)	1985	No	No	No	No
Box	bunker	1985	No	No	No	No
Mog	well	1985	No	No	No	No

Reporting Group NPPs, Site Data: EDU

Country: Czech Republic Reporting Year: 2006

Full Name: JE Dukovany

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage BAPP	No	315	100	0	0	0	0	0	0	No
LILW-SL	Storage BAPP	Yes	1908	100	0	0	0	0	0	0	No

Comment #4958: The additional characteristics of the waste

Processed waste covers only radioactive concentrates and unprocessed waste only ion exchange resins. Additionally 502,4 t of solid waste was stored in NPP Dukovany.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Evaporation			same	
Ion Exchange			same	
Solvent Extraction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Polymerization	Yes			

Reporting Group NPPs, Site Structure: ETE

Country: Czech Republic Reporting Year: 2006

Full Name: JE Temelin

License Holder(s) : CEZ a.s.

Comment #390: NPP Temelin

The Temelín NPP is the largest power station in the Czech Republic. 2 PWR reactors of the VVER-1000-320 type are installed with capacity of 2000 MW.
The NPP station is situated approximately 24 km north of the City of Ceske Budejovice.
The site preparation started in 1983. In 1990, the government of the CSFR decided to cease the construction on the 3rd and 4th units. Finally, in March 1993, the government of the CR decided that the 1st and 2nd VVER 1000 units should be completed only. However, the modifications and alterations further postponed the commissioning of the power station. Unit 1 was critical in October 2000. The trial operation of the Unit 1 started in July 2002. The Unit 2 was critical in May 2002. The trial operation of the Unit 2 started in April 2003.

The following list the waste management facilities that are located at this site.

Facility: BPP

Description	Waste processing and interim storage facility

Processing part of the "BPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	2000

Storage part of the "BPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
box	bunker	2000	No	No	No	No
kobka	well	2000	No	No	No	No

Reporting Group NPPs, Site Data: ETE

Country: Czech Republic Reporting Year: 2006

Full Name: JE Temelin

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	271.5	100	0	0	0	0	0	0	No

Comment #4974: The additional characteristics of the waste

Processed waste covers only radioactive concentrates. No ion exchange resins were stored. Additionally 385.5 m3 of solid waste was stored in NPP Temelin.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			increase	
Evaporation			increase	
Ion Exchange			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			increase	
Polymerization	Yes			

Reporting Group SURAO, Site Structure: Bratrstvi

Country: Czech Republic Reporting Year: 2006

Full Name: URAO Bratrstvi

License Holder(s) : SURAO (Radioactive Waste Repository Authority)

Comment #388: Information

The Bratrstvi facility was built in an abandoned uranium mine near Jachymov (Joachimsthal). It is used for waste containing natural radionuclides (Ra-226, Pb-210, Uranium and Thorium isotopes).

The following list the waste management facilities that are located at this site.

Facility: URAO B

Description	

Disposal part of the "URAO B" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	No	No
LILW-LL	Yes	Yes	HLW	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	Yes				

Type	rock cavern (mountain/hill)		
Facility is non modular			
Capacity - existing (m3)	1200	Capacity -planned (m3)	1200
Depth (m)	30-60		
Host medium	crystalline rock (gneiss)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1970	
site selection			1971
design		1971	
construction		1972	1973
commissioning		1974	
operation		1974	2030
closure	Yes	2030	

Comment #7197: Total volume of repository

The volume of the facility is about 3500 m3 including transport corridors. Reviews of historical records and documents were done during 1999-2003.

Comment #14552: Disposal Facility URAO B

From the total volume of 3500 m3 of only 1200 m3 can be used for disposal of RAW. At the end of 2004 about 880 m3 of RAW (73.3% from available disposal volume) were disposed

Comment #14553: Disposal Facility URAO B

At the end of 2006 about 955 m3 of RAW (79.6% from available disposal volume) were disposed

Reporting Group SURAO, Site Data: Bratrstvi

Country: Czech Republic | Reporting Year: 2006

Full Name: URAO Bratrstvi

Inventory Reporting Date: December 2006 | Waste Matrix: cz-eu

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-LL	Disposal	Yes	284.6	0	0	0	100	0	0	0	No

Comment #9782: Disposal facilities/Class LILW-LL/Site Bratrstvi

The volume of disposed RAW has been updated based on the recent historical data analysis. The RAW volume reported in 2003 has been derived in the safety case using conservative assumptions (all packages with 200 l volume). The historical data survey in 2005 showed, that about 50 % of used packages have volume of 100 l.

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Pb-210	7			Yes	No	0	8.19E-01	2006.12 (estimate)
	8.19E-01							

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226	184		Yes	No	0	5.19E+01	2006.12 (estimate)
	5.19E+01						

Reporting Group SURAO, Site Structure: Dukovany

Country: Czech Republic Reporting Year: 2006

Full Name: URAO Dukovany

License Holder(s) : SURAO (Radioactive Waste Repository Authority)

Comment #381: Information

The Dukovany repository (URAO) serves for radioactive waste from operation of Czech NPP. It does not accept waste from research, industry and medicine or spent sealed sources. The accepted waste corresponds to the IAEA LLW-SL waste class.

Comment #14554: Site Dukovany

Since 2006 repository can accommodate unprocessed institutional waste and operational waste immobilised not only in bitumene, glas and cement, but also in aluminosilicate matrix.

The following list the waste management facilities that are located at this site.

Facility: URAO D

Description	Near-surface radioactive waste repository for disposal of operational waste from both NPPs and waste from their decommissioning. Since 2006 also unprocessed RAW of institutional origin can be disposed in the repository.

Disposal part of the "URAO D" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	55000	Capacity -planned (m3)	55000
Depth (m)	5.3		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1976	
site selection			1982
design			1986
construction		1987	
commissioning			1994
operation		1995	
closure	Yes	2100	

Comment #9797: Calculation of used repository capacity

The reported % of existing capacity used is based on the number of vaults filled by RAW in 200 l drums, which was at the end of 2004 about 9,5 vaults (about 8,5% of the volume of the whole repository - 112 vaults).

Comment #14557: Disposal Facility URAO D

At the end of 2006 5579 m3 of waste (11,5 vaults; about 10 % of the volume of the whole repository) was disposed in the repository.

Reporting Group SURAO, Site Data: Dukovany

Country: Czech Republic Reporting Year: 2006

Full Name: URAO Dukovany

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	No	143.14	94.59	0	0	5.41	0	0	0	No
LILW-SL	Disposal	Yes	3483.2	100	0	0	0	0	0	0	Yes

Reporting Group SURAO, Site Structure: Hostim

Country: Czech Republic | Reporting Year: 2006

Full Name: URAO Hostim

License Holder(s) : SURAO (Radioactive Waste Repository Authority)

Comment #389: Information

The repository was situated near the City of Beroun. It was constructed in an abandoned limestone mine and put into operation in 1959 for radioactive waste from research, industry and medicine. It was closed in 1965 and most of waste packages were transferred in the Richard repository. The repository was finally filled with concrete and sealed in 1997. The site is monitored.

The following list the waste management facilities that are located at this site.

Facility: URAO H

Description	The repository was used to dispose RAW of institutional origin and has been closed.

Disposal part of the "URAO H" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	Yes	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	rock cavern (mountain/hill)		
Facility is non modular			
Capacity - existing (m3)	1690	Capacity -planned (m3)	1690
Depth (m)	30		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1959	
commissioning			1959
operation		1959	1964
closure		1965	1997
institutional control		1998	

Reporting Group SURAO, Site Data: Hostim

Country: Czech Republic Reporting Year: 2006

Full Name: URAO Hostim

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRW	Disposal	Yes	330	0	0	0	100	0	0	0	No

Reporting Group SURAO, Site Structure: Richard

Country: Czech Republic Reporting Year: 2006

Full Name: URAO Richard

License Holder(s) : SURAO (Radioactive Waste Repository Authority)

Comment #380: Information

Abandoned mine Richard (60 km N of Prague) serves as repository for radioactive waste from research, industry and medicine.

Comment #14555: Site Richard

In 2006 and 2007 disposal chambers 8/2, 9 a 12 were upgraded (hydraulical cage) and filled with waste. New concrete floor was laid down in chambers 13 and 22 and these chambers will be used for the disposal of waste.

The following list the waste management facilities that are located at this site.

Facility: URAO R

Description	The repository is used to dispose of particularly RAW containing artificial radionuclides. Separately from the disposed RAW there are also stored RAW, which cannot be currently disposed and wait to be disposed in a suitable repository.

Storage part of the "URAO R" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	Yes	Yes	HLW	No	No
SRS	Yes	No			
List SRS?	Yes				
Capacity					

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
komora	cave	1964	No	No	No	Yes

Disposal part of the "URAO R" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TRW	No	No	LILW-SL	Yes	Yes
LILW-LL	No	No	HLW	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	Yes				

Type	rock cavern (mountain/hill)		
Facility is non modular			
Capacity - existing (m3)	8300	Capacity -planned (m3)	8300
Depth (m)	30-60		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1961	
site selection			1961
design		1961	
construction			1962
commissioning		1964	
operation		1964	2070
closure	Yes	2070	

Reporting Group SURAO, Site Structure: Richard

Country: Czech Republic Reporting Year: 2006

Additional Activities and Events			
ACTIVITY: upgrading		2006	2007

Comment #9799: Calculation of used repository capacity

From the total volume of 17 050 m3 of only 8300 m3 can be used for disposal of RAW. At the end of 2004 about 6260 m3 of RAW (75.4% from available disposal volume) were disposed.

Comment #14556: Disposal Facility URAO R

At the end of 2006 about 6478 m3 of RAW (78% from available disposal volume) were disposed.

Reporting Group SURAO, Site Data: Richard

Country: Czech Republic Reporting Year: 2006

Full Name: URAO Richard

Inventory Reporting Date: December 2006 Waste Matrix: cz-eu

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	3.8	0	0	0	100	0	0	0	Yes
LILW-SL	Storage	Yes	0.8	0	0	0	100	0	0	0	No
LILW-SL	Disposal	No	23.77	0	0	0	100	0	0	0	Yes
LILW-SL	Disposal	Yes	2243.33	0	0	0	100	0	0	0	Yes
LILW-LL	Storage	No	2.9	15	0	0	85	0	0	0	Yes
LILW-LL	Storage	Yes	2	0	0	0	100	0	0	0	Yes

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Eu-152			1	Yes	No	0	5.57E+04	2006.12 (estimate)
			5.57E+04					
Pm-147	1			Yes	No	0	7.90E-05	2006.12 (estimate)
	7.90E-05							
Cs-137	22	13		Yes	No	0	2.33E+05	2006.12 (estimate)
	1.41E+01	2.33E+05						
Co-60		53		Yes	No	0	2.92E+05	2006.12 (estimate)
		2.92E+05						
Cf-252	1			Yes	No	0	2.00E-03	2006.12 (estimate)
	2.00E-03							

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Sr-89				Yes	No	0	0.00E+00	2006.12
Y-88				Yes	No	0	0.00E+00	2006.12
Se-75	16			Yes	No	0	1.40E-02	2006.12
	1.40E-02							
Mn-54	1			Yes	No	0	9.50E-08	2006.12
	9.50E-08							
Pb-210	1			Yes	No	0	1.05E-04	2006.12
	1.05E-04							
Tm-170				Yes	No	0	0.00E+00	2006.12
Eu-152	36	6		Yes	No	0	1.98E+02	2006.12
	1.59E+01	1.83E+02						
Cs-134	1			Yes	No	0	1.47E-04	2006.12
	1.47E-04							

Reporting Group SURAO, Site Data: Richard

Country: Czech Republic Reporting Year: 2006

Cd-109	14			Yes	No	0	3.96E+00	2006.12
	3.96E+00							
Ru-106	3			Yes	No	0	3.13E-03	2006.12
	3.13E-03							
Co-57	15			Yes	No	0	4.22E-04	2006.12 (estimate)
	4.22E-04							
Na-22	2			Yes	No	0	7.90E-06	2006.12 (estimate)
	7.90E-06							
Ba-133	7			Yes	No	0	1.66E-04	2006.12 (estimate)
	1.66E-04							
Ce-144	2			Yes	No	0	3.13E-04	2006.12 (estimate)
	3.13E-04							
Sr-90	280	31		Yes	No	0	2.68E+03	2006.12 (estimate)
	1.58E+02	2.52E+03						
Zn-65	1			Yes	No	0	2.55E-04	2006.12 (estimate)
	2.55E-04							
Tl-204	4			Yes	No	0	6.87E-02	2006.12 (estimate)
	6.87E-02							
Pm-147	35			Yes	No	0	7.82E+01	2006.12 (estimate)
	7.82E+01							
Kr-85	79	33		Yes	No	0	1.40E+03	2006.12 (estimate)
	1.22E+02	1.28E+03						
H-3	3	7		Yes	No	0	3.91E+03	2006.12 (estimate)
	8.86E-01	3.91E+03						
Fe-55	39	6		Yes	No	0	1.99E+02	2006.12 (estimate)
	1.60E+01	1.83E+02						
Cs-137	188	150		Yes	No	0	3.46E+05	2006.12 (estimate)
	9.52E+01	3.46E+05						
Co-60	1034	136		Yes	No	0	3.78E+05	2006.12 (estimate)
	2.25E+02	3.78E+05						
Cf-252	15	1		Yes	No	0	8.70E+00	2006.12 (estimate)
	4.62E-01	8.23E+00						
Ce-144				Yes	No	0	0.00E+00	2006.12 (estimate)

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ni-63			Yes	No	0	0.00E+00	
K-40			Yes	No	0	0.00E+00	
C-14			Yes	No	0	0.00E+00	
U-238			Yes	No	0	0.00E+00	
Ra-226	1		Yes	No	0	3.66E-01	2006.12 (estimate)
	3.66E-01						

Pu-239	1	40	Yes	No	0	2.94E+03	2006.12 (estimate)
	1.10E+00	2.94E+03					
Pu-238	4	2	Yes	No	0	1.11E+02	2006.12 (estimate)
	2.46E+00	1.08E+02					
Am-241	194	55	Yes	No	0	4.44E+03	2006.12 (estimate)
	3.64E+01	4.40E+03					

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ni-63	1		Yes	No	0	3.18E-01	2006.12 (estimate)
	3.18E-01						
K-40	2		Yes	No	0	6.92E-07	2006.12 (estimate)
	6.92E-07						
Pu-239	17	25	Yes	No	0	1.21E+03	2006.12 (estimate)
	6.20E+00	1.20E+03					
Am-241	127	66	Yes	No	0	7.51E+03	2006.12 (estimate)
	6.78E+01	7.45E+03					
C-14	13	2	Yes	No	0	1.43E+01	2006.12 (estimate)
	3.31E+00	1.10E+01					

REGULATORS

Country: Czech Republic

Reporting Year: 2006

Name	SUJB
Full Name	State Office for Nuclear Safety
Division	Division of Radioactive Waste and Spent Fuel Management
City or Town	Prague

REGULATIONS / LAWS

Country: Czech Republic Reporting Year: 2006

Name	Atomic Act	
Title or Name	Act on Peaceful Use of Nuclear Energy and Ionizing radiation	
Reference Number	18/1997	
Date Promulgated or Proclaimed	1997-01-24	Law

Name	307	
Title or Name	Decree of the State Office for Nuclear Safety on Radiation Protection	
Reference Number	307/2002	
Date Promulgated or Proclaimed	2002-06-13	Regulation

Name	317	
Title or Name	Decree Of the State Office for Nuclear Safety, on Type Approval of Packaging Assemblies for Transport, Storage and Disposal of Nuclear Materials and Radioactive Substances, on Type Approval of Ionizing Radiation Sources and on Transport of Nuclear Materials and Specified Radioactive Substances	
Reference Number	317/2002	
Date Promulgated or Proclaimed	2002-06-13	Regulation

Name	145	
Title or Name	Decree of the State Office for Nuclear Safety, on Accounting for and Control of Nuclear Materials and their Detailed Specification	
Reference Number	145/1997	
Date Promulgated or Proclaimed	1997-06-19	Regulation

Name	214	
Title or Name	Decree of the State Office for Nuclear Safety, on Quality Assurance in Activities Related to the Utilization of Nuclear Energy and in Radiation Activities, and Laying Down Criteria for the Assignment and Categorization of Classified Equipment into Safety Classes	
Reference Number	214/1997	
Date Promulgated or Proclaimed	1997-08-15	Regulation

REGULATIONS / LAWS

Country: Czech Republic Reporting Year: 2006

Name	318	
Title or Name	Decree of the State Office for Nuclear Safety, on Details of Emergency Preparedness of Nuclear Facilities and Workplaces with Ionising Radiation Sources and on Requirements on the Content of On-Site Emergency Plan and Emergency Rule	
Reference Number	318/2002	
Date Promulgated or Proclaimed	2002-06-13	Regulation

Name	185	
Title or Name	Decree of the State Office for Nuclear Safety on Decommissioning of Nuclear Facilities or Workplaces of IIIth or IVth Category	
Reference Number	185/2003	
Date Promulgated or Proclaimed	2003-06-03	Regulation

Policies

Country: Czech Republic Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #7409: Joint Convention report

For more details see "National Report of the Czech Republic under the Joint Convention on Safety in SF Management and Safety in RAW Management (Chapter 2)" at www.sujb.cz

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Attachment #1284: Summary of the Concept of Radioactive Waste Management in the Czech Republic

File name: WM concept RAWRA.doc

File type: MS Office Document

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete

22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All

Policies

Country: Czech Republic **Disposal Facilities** Reporting Year: 2006

44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	Yes
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes

69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Comment #9781: Policies Processing/Storage-Foreign

It is expected, that within the framework of the Russian Research Reactor Fuel Return Program covered in the Global Thread Reduction Initiative the spent fuel from research reactors will be shipped to the Russian Federation for reprocessing before 2010.

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

Comment #6915: Act No. 18/1997

Licence Application shall contain
- in the event that radioactive waste is to be generated as a part of activities being licensed, a document demonstrating safe management of radioactive waste, including associated funding of this management;
- decommissioning programmes as specified in the licence;
- an estimate of total costs of decommissioning verified by the Radioactive Waste Repository Authority exceeds 300 000 CZK, steadily make provision for decommissioning of nuclear installation or category III or IV workplace, so that financial resources deposited on a blocked account will be available for preparation and performing of decommissioning, at the required time and in the required amount

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some

Country Waste Profile Report for

Denmark

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Country Waste Profile Report for

Ecuador

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Waste Class Matrix(ces) Used/Defined

Country: Ecuador, Republic of

Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: A

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
IND. + HOSPITAL WASTES	38	62	0

Description: "Information about the "A" matrix"
The Ecuadorian law does not consider radioactive wastes by classes. It is an old law (released 1978) and therefore wastes are regulated in a general manner. Our law literally states : "The licensee must do every existent operation to treat and to evacuate radioactive wastes".

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Ecuador, Republic of   Reporting Year: 2006

Reporting Group: **Quito-CEEA**

Inventory Reporting Date: December 2006

Waste Matrix Used: A

Description: For spent sealed radioactive sources

Site Name	Facility Name	Facilities Defined		
Quito-CEEA	Aychapicho		storage	

Reporting Group Quito-CEEA, Site Structure: Quito-CEEA

Country: Ecuador, Republic of Reporting Year: 2006

Full Name: Comision Ecuatoriana de Energia Atomica, Quito

Location: Aychapicho (near Aloag)

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Aychapicho

Description	A small building to store SRS.

Storage part of the "Aychapicho" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
IND. + HOSPITAL WASTES	No	No			
SRS	Yes	No			

List SRS?	Yes
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	building	1980	No	No	Yes	Yes

Reporting Group Quito-CEEA, Site Data: Quito-CEEA

Country: Ecuador, Republic of Reporting Year: 2006

Full Name: Comision Ecuatoriana de Energia Atomica, Quito

Inventory Reporting Date: December 2006 Waste Matrix: A

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Kr-85	1 2.88E+00			No	Yes	4	2.88E+00	2008.03
Cs-137	1 3.62E+00			No	Yes	0	3.62E+00	2008.03
Cs-137		1 2.68E+01		No	Yes	0	2.68E+01	2008.03
Cs-137	7 1.22E+00			No	Yes	4	1.22E+00	2008.03
Cs-137	1 9.04E-03			No	Yes	0	9.04E-03	2008.03
Co-60		2 1.61E+04		No	Yes	1	1.61E+04	2008.03
Co-57	2 2.01E-06			No	Yes	5	2.01E-06	2008.03
Co-60	5 1.06E-01			No	Yes	3	1.06E-01	2008.03
Co-60	1 1.69E-01			Yes	No	3	1.69E-01	2008.03
Co-60		2 1.93E+04		Yes	No	1	1.93E+04	2008.03
Cs-137	7 1.48E+01			Yes	No	3	1.48E+01	2008.03
Cs-137	17 2.54E+01			No	Yes	3	2.54E+01	2008.03
Cs-137		5 3.86E+01		Yes	No	3	3.86E+01	2008.03
Cs-137		13 4.23E+02		No	Yes	3	4.23E+02	2008.03
Ir-192	5 1.52E-04			No	Yes	2	1.52E-04	2008.03
Sr-90	12 4.66E+00			Yes	No	4	4.66E+00	2008.03
Kr-85		1 1.38E+01		Yes	No	4	1.38E+01	2008.03

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226 Neutron Gen.	1 1.65E-01		No	Yes	4	1.65E-01	2008.03

Reporting Group Quito-CEEA, Site Data: Quito-CEEA

Country: Ecuador, Republic of Reporting Year: 2006

Am-241 Neutron Gen.		13	No	Yes	3	1.92E+03	2008.03
		1.92E+03					
Am-241 Neutron Gen.	6		No	Yes	4	7.83E+00	2008.03
	7.83E+00						
Am-241 Neutron Gen.		1	No	Yes	4	2.10E+00	2008.03
		2.10E+00					
Am-241		1	Yes	No	4	3.63E+00	2008.03
		3.63E+00					
Am-241	1		No	Yes	4	4.92E-01	2008.03
	4.92E-01						
Ra-226	96		Yes	No	2	2.64E+01	2007.03
	2.64E+01						
Ra-226		2	No	Yes	2	7.70E+00	2007.03
		7.70E+00					

REGULATORS

Country: Ecuador, Republic of

Reporting Year: 2006

Name	CEEA
Full Name	Comision Ecuatoriana de Energia Atomica
Division	Coordinacion de Regulación y Control del Uso de las radiaciones Ionizantes
City or Town	Quito

REGULATIONS / LAWS

Country: Ecuador, Republic of Reporting Year: 2006

Name	RSR	
Title or Name	Reglamento de Seguridad Radiologica	
Reference Number	Registro Oficial No. 891 de 1979	
Date Promulgated or Proclaimed	1979-08-08	Regulation

MILESTONES

Country: Ecuador, Republic of | Reporting Year: 2006

Start Year or Reference Year:	1980	End Year	
Description of Milestone			
The CEEA has collected spent radioactive sources since about 20 years ago and stored them in a unique location within the country. This place which is a Temporary Radioactive Waste Storage is placed in the Center of Nuclear Studies of Ecuador in a site called Aychapicho, close to the town Aoag.			

Policies

Country: Ecuador, Republic of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Partially
5	specified a rational set of safety, radiological and environmental protection objectives	Partially
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Partially
10	implemented appropriate research and development to support the operational and regulatory needs	No
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	No
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	

24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Incomplete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	No
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Partially
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	No
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Partially
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Partially

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - Some
41	Environmental Impact Statement (EIS)	Yes - Some
42	Performance Assessment (PA)	Yes - Some
43	Quality Assurance (QA)	No
44	Safety Assessment (SA)	Yes - Some

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	No
61	waste minimization	No
62	waste storage	No
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	No
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)

Policies

Country: Ecuador, Republic of **Spent SRS** Reporting Year: 2006

Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)

71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	Yes
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	No
84	Do any agreements include suppliers that are outside of your Country?	No

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for

Estonia

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-27 16:13:43

Waste Class Matrix(ces) Used/Defined

Country: Estonia, Republic of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #320: Waste Matrix

The IAEA waste matrix is not specified in any law in Estonia and it is used to report to the NEWMDB

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Estonia, Republic of Reporting Year: 2006

Reporting Group: **National**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description:

Site Name	Facility Name	Facilities Defined		
Paldiski	Pald_WTF	processing		
	Pald_RWSF		storage	
Tammiku	Tammiku			disposal

Reporting Group National, Site Structure: Paldiski

Country: Estonia, Republic of Reporting Year: 2006

Full Name:	The Former Soviet Navy Nuclear Training Centre
Location:	45km west of Tallinn
License Holder(s) :	A.L.A.R.A. AS, National RWMO

Comment #425: unprocessed waste

unprocessed waste is metallic scrap, concrete rubble,
plastic, etc. from decontamination and dismantling activities packaged into plastic bags and stored in 17 half-height ISO containers before treatment or conditioning.

Comment #426: processed waste

processed waste consists of 221 waste packages: 205 packages with conditioned D&D waste, and 16 packages with SRS in their shielding blocks or transport containers.
Cutted pieces of 20 control rods are stored in four specific waste packages.

Attachment #1288: Remediation and Decommissioning of Radioative Waste Facilities in Estonia.
Paper presented in Malta conference, November 2001

File name: IAEA-CN-87-32.doc

File type: PDF Document

Member State's Reference # IAEA-CN-87_32

Attachment #1289: Paper presented in ASME Conference Radioactive Waste Management and Environmental Restoration, Nagoya, Japan, 1999

File name: 455 ICEM.pdf

File type: PDF Document

Member State's Reference # Nagoya_99

The following list the waste management facilities that are located at this site.

Facility: Pald_WTF

Description	Paldiski Waste Treatment Facility

Processing part of the "Pald_WTF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1998

Reporting Group National, Site Structure: Paldiski

Country: Estonia, Republic of Reporting Year: 2006

Facility: Pald_RWSF

Description	Paldiski Radioactive Waste Storage (includes SRS storage)

Storage part of the "Pald_RWSF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	No			

List SRS?	Yes
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Pald_RWSF	building	1997	No	No	Yes	Yes

Reporting Group National, Site Data: Paldiski

Country: Estonia, Republic of Reporting Year: 2006

Full Name: The Former Soviet Navy Nuclear Training Centre

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	432	0	0	0	0	0	100	0	No
LILW-SL	Storage	Yes	351	0	0	0	11	0	89	0	No
LILW-LL	Storage	No	1	0	0	0	100	0	0	0	No

Comment #7570: Dep U

1 m3 of Dep U from shielding in NA facilities

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			increase	

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Co-60			1	No	Yes	1	1.17E+05	2007.07 (estimate)
			1.17E+05					
Sr-90		37		No	Yes	2	7.11E+05	2007.07 (estimate)
		7.11E+05						
Sr-90	98			No	Yes	3	7.00E+01	2007.07 (estimate)
	7.00E+01							
Kr-85		5		No	Yes	2	2.40E+01	2007.07 (estimate)
		2.40E+01						
Cs-137		491		No	Yes	2	1.71E+05	2007.07 (estimate)
		1.71E+05						
Co-60		23		No	Yes	1	3.95E+04	2007.07 (estimate)
		3.95E+04						
Co-60	55			No	Yes	3	3.02E+01	2007.07 (estimate)
	3.02E+01							
Cs-137	342			No	Yes	3	1.45E+02	2007.07 (estimate)
	1.45E+02							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					

Reporting Group National, Site Data: Paldiski

Country: Estonia, Republic of Reporting Year: 2006

Pu-238		44	No	Yes	2	1.33E+04	2007.07 (estimate)
		1.33E+04					
Am-241		28	No	Yes	2	1.24E+02	2007.07 (estimate)
		1.24E+02					
Pu-239	13276		No	Yes	3	1.88E+02	2007.07 (estimate)
	1.88E+02						

Reporting Group National, Site Structure: Tammiku

Country: Estonia, Republic of Reporting Year: 2006

Full Name: Tammiku Radioactive Waste Depository

Location: 12 km south of Tallinn

License Holder(s) : A.L.A.R.A. AS, National RWMO

Attachment #1286: Short description of the Tammiku facility

File name: Tammiku.PDF

File type: PDF Document

The following list the waste management facilities that are located at this site.

Facility: Tammiku

Description	RADON type facility for institutional RW

Disposal part of the "Tammiku" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	200	Capacity -planned (m3)	200
Depth (m)	0-3		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
operation		1963	1995

Reporting Group National, Site Data: Tammiku

Country: Estonia, Republic of Reporting Year: 2006

Full Name: Tammiku Radioactive Waste Depository

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	No	105	0	0	0	100	0	0	0	No
LILW-LL	Disposal	No	5	0	0	0	100	0	0	0	No

REGULATORS

Country: Estonia, Republic of Reporting Year: 2006

Name	MoE
Full Name	Ministry of the Environment
Division	
City or Town	Tallinn

REGULATIONS / LAWS

Country: Estonia, Republic of Reporting Year: 2006

Name	Rad_Act	
Title or Name	Radiation Act (Kiirgusseadus)	
Reference Number	RT I 2004, 26, 173	
Date Promulgated or Proclaimed	2004-04-07	Law

Attachment #1287: Development and Problems of Radioactive Waste Management Infrastructure in Estonia. Paper presented in Malta Conference, November 2001

File name: IAEA-CN-87_97P.PDF

File type: PDF Document

Member State's Reference # IAEA-CN-87_97P

Name	KKM_8_2005	
Title or Name	The Classification of Radioactive Waste, the Requirements for Registration, Management and Delivery of Radioactive Waste and the Acceptance Criteria for Radioactive Waste	
Reference Number	RTL, 17.02.2005, 20, 244	
Date Promulgated or Proclaimed	2005-02-20	Regulation

Policies

Country: Estonia, Republic of Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	No

Comment #14544: Policies National Systems-Policy

The Radiation Protection Action Plan for Estonia is in the preparation. This document will include also national policy for radioactive waste management.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	No

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Partially
5	specified a rational set of safety, radiological and environmental protection objectives	Partially
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Partially
10	implemented appropriate research and development to support the operational and regulatory needs	No
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Partially
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Incomplete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete

101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	No
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - Some
41	Environmental Impact Statement (EIS)	No
42	Performance Assessment (PA)	No
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - Some
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - Some

Policies

Country: Estonia, Republic of **Disposal Facilities** Reporting Year: 2006

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No

Policies

Country: Estonia, Republic of | **Spent SRS** | Reporting Year: 2006

74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	Yes
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	No

Country Waste Profile Report for

Finland

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-27 11:09:43

Waste Class Matrix(ces) Used/Defined

Country: Finland Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: FIN_RADW

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
reactor waste	99	1	0
spent fuel	0	0	100

Description: Reactor wastes include solid and liquid waste aring from the controlled area of a nuclear power plant, see Comment #104. The portion of longlived waste is overestimated, especially what comes to disposed reactor waste.

Comment #104: basis of the classification for reactor wastes

The classification of reactor wastes used in Finland is given in Safety Guide 8.3, where the reactor wastes are divided into low level and intermediate level waste categories (http://www.stuk.fi/saannosto/YVL8-3e.html.) According to national laws, spent fuel is classified as waste but is not reported here. At the Loviisa site, wet reactor wastes are stored waiting for disposal starting in a few years. Long-lived reactor waste is mainly activated metal waste. Safety Guide 1.5 concerns on reporting.

Waste Class Matrix: FIN_RADW2

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
LILW	100	0	0
spent fuel	0	0	100

Waste Class Matrix: FIN_RADW3

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
small user waste	90	10	0

Comment #335: Meaning of the term

"Small user waste" term includes some SRS and some contaminated material. The small user wastes are managed by the government and so far kept in a cave. It is planned to dispose them together with reactor waste.

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Finland Reporting Year: 2006

Reporting Group: **Lo_NPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: FIN_RADW

Description: Loviisa NPP.

Site Name	Facility Name	Facilities Defined		
Loviisa	LO1	processing	storage	
	LO2	processing	storage	
	NPP-Area		storage	
	DT		storage	disposal

Reporting Group: **Ol_NPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: FIN_RADW

Description: Olkiluoto NPP

Site Name	Facility Name	Facilities Defined		
Olkiluoto	OL1	processing	storage	
	OL2	processing	storage	
	NPP-Area		storage	
	VLJ-KAJ			disposal
	VLJ-MAJ			disposal

Reporting Group: **Posiva**

Inventory Reporting Date: December 2006

Waste Matrix Used: FIN_RADW

Description: Posiva Oy, nuclear waste managment company

Site Name	Facility Name	Facilities Defined		
Olkiluoto	SFdisposal			disposal

Reporting Group: **STUK/TKO**

Inventory Reporting Date: December 2006

Waste Matrix Used: FIN_RADW3

Description: STUK's Research and Environmental surveillance (STUKin tutkimusosasto)

Site Name	Facility Name	Facilities Defined		
SSOW	SSOW		storage	

Groups Overview

Country: Finland Reporting Year: 2006

Reporting Group: **VTT/FIR**

Inventory Reporting Date: December 2006

Waste Matrix Used: FIN_RADW2

Description: Technical Research Centre of Finland

Site Name	Facility Name	Facilities Defined		
FIR	LILW-Proc	processing		
	LILW-Store		storage	
	SF storage		storage	

Reporting Group Lo_NPP, Site Structure: Loviisa

Country: Finland Reporting Year: 2006

Full Name: Loviisa NPP

Location: Loviisa, Finland

License Holder(s) : Fortum Power and Heat Oy

The following list the waste management facilities that are located at this site.

Facility: LO1

Description	processing and storage of reactor waste

Processing part of the "LO1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	No	No	spent fuel	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1977

Storage part of the "LO1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
SRS	No	No			
List SRS?	No				
Capacity	activated components can be stored here at loading ponds etc.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LO1	building	1977	No	No	No	No

Reporting Group Lo_NPP, Site Structure: Loviisa

Country: Finland Reporting Year: 2006

Facility: LO2

Description	processing and storage of reactor waste

Processing part of the "LO2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	No	No	spent fuel	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1980

Storage part of the "LO2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
SRS	No	No			
List SRS?	No				
Capacity	activated components can be stored here at loading ponds etc.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LO2	building	1980	No	No	No	No

Facility: NPP-Area

Description	Nuclear power plant storage area

Storage part of the "NPP-Area" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	Nuclear power plant area can be used for storing purposes for waste that will not be disposed immediately, like liquid wastes waiting for cementation.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
NPPStorage	building	1977	No	No	No	No

Reporting Group Lo_NPP, Site Structure: Loviisa

Country: Finland Reporting Year: 2006

Facility: DT

Description	Disposal cave consists of tunnels designed with enough capacity for all reactor wastes from the power plant. The volume of packed waste to be disposed is estimated to be about 8740 m3.

Storage part of the "DT" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
SRS	No	No			
List SRS?	No				
Capacity	Disposal tunnels are designed with enough capacity for all reactor wastes from the power plant, in addition, tunnels can be used for storage purposes.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DT-storage	cave	1998	No	No	No	No

Disposal part of the "DT" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is modular			
Capacity - existing (m3)	2500	Capacity -planned (m3)	8740
Depth (m)	110		
Host medium	crystalline rock (gneiss)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1980	1986
site selection		1980	1983
design		1983	1986
construction		1993	1997
commissioning		1997	1998
operation		1998	

Comment #9656: Disposal Tunnels DT

The first disposal tunnel in almost full in the end of 2004, and the second disposal tunnel is taken in use in 2005. Their capacity is about 2500 m3 and they are mainly meant for maintenance waste. A disposal room is also planned to be constructed in the future for waste immobilized in cement.

Reporting Group Lo_NPP, Site Data: Loviisa

Country: Finland Reporting Year: 2006

Full Name: Loviisa NPP

Inventory Reporting Date: December 2006 Waste Matrix: FIN_RADW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
reactor waste	Storage LO1	No	9.56	100	0	0	0	0	0	0	Yes
reactor waste	Storage LO2	No	10.76	100	0	0	0	0	0	0	Yes
reactor waste	Storage NPP-Area	No	1238.1	100	0	0	0	0	0	0	Yes
reactor waste	Storage LO2	Yes	202.3	100	0	0	0	0	0	0	Yes
reactor waste	Storage NPP-Area	Yes	200.7	50	0	0	0	0	0	50	Yes
reactor waste	Disposal DT	Yes	1378.2	100	0	0	0	0	0	0	No

Comment #7172: The additional characteristics of the waste

Processed: solid (dispersible), solid (non-dispersible)

Waste Class	Status
spent fuel (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Evaporation			same	
Filtration			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	Yes			

Reporting Group Ol_NPP, Site Structure: Olkiluoto

Country: Finland Reporting Year: 2006

Full Name: Olkiluoto NPP

Location: Eurajoki, Finland

License Holder(s) : Teollisuuden Voima Oy

The following list the waste management facilities that are located at this site.

Facility: OL1

Description	processing and storage of reactor waste

Processing part of the "OL1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	No	No	spent fuel	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1978

Storage part of the "OL1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
SRS	No	No			
List SRS?	No				
Capacity	activated components can be stored here at loading ponds etc.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
OL1	building	1978	No	No	No	No

Reporting Group Ol_NPP, Site Structure: Olkiluoto

Country: Finland Reporting Year: 2006

Facility: OL2

Description	processing and storage of reactor waste

Processing part of the "OL2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	No	No	spent fuel	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1980

Storage part of the "OL2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
SRS	No	No			
List SRS?	No				
Capacity	activated components can be stored here at loading ponds etc.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
OL2	building	1980	No	No	No	No

Facility: NPP-Area

Description	Power plant storage area

Storage part of the "NPP-Area" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	Nuclear power plant area can be used for storing purposes for waste that will not be disposed immediately.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
NPPStorage	building	2000	No	No	No	No

Reporting Group Ol_NPP, Site Structure: Olkiluoto

Country: Finland Reporting Year: 2006

Facility: VLJ-KAJ

Description	KAJ silo in the VLJ-Cave repository. The KAJ silo is used to dispose of mainly the intermediate level waste (ILW) component of low and intermediate level (LILW) reactor waste

Disposal part of the "VLJ-KAJ" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is non modular			
Capacity - existing (m3)	6400	Capacity -planned (m3)	6400
Depth (m)	100		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1980	1986
site selection		1980	1983
design		1983	1986
construction		1988	1991
commissioning		1991	1991
operation		1992	

Comment #9711: Disposal Facility VLJ-KAJ

The total volume of disposed waste in MAJ- and KAJ-silos without overpackings will be about 8800 m3. The % capacity used reported in Framework is based on the volume of waste plus overpacks. However, the volume of waste disposed reported in Waste Data does not include overpack volumes. Therefore, if someone calculates % capacity used based on capacity of facility and volume of waste reported, the calculated value will not equal the reported % capacity used.

Reporting Group Ol_NPP, Site Structure: Olkiluoto

Country: Finland Reporting Year: 2006

Facility: VLJ-MAJ

Description	MAJ silo in the VLJ-Cave repository. The MAJ silo is used to dispose of mainly the low level waste (LLW) component of low and intermediate level (LILW) reactor waste

Disposal part of the "VLJ-MAJ" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	Yes	Yes	spent fuel	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is non modular			
Capacity - existing (m3)	9100	Capacity -planned (m3)	9100
Depth (m)	100		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1980	1986
site selection		1980	1983
design		1983	1986
construction		1988	1991
commissioning		1991	1991
operation		1992	

Comment #9710: Disposal Facility VLJ-MAJ

The total volume of disposed waste in MAJ- and KAJ-silos without overpackings will be about 8800 m3. The % capacity used reported in Framework is based on the volume of waste plus overpacks. However, the volume of waste disposed reported in Waste Data does not include overpack volumes. Therefore, if someone calculates % capacity used based on capacity of facility and volume of waste reported, the calculated value will not equal the reported % capacity used.

Reporting Group OI_NPP, Site Data: Olkiluoto

Country: Finland Reporting Year: 2006

Full Name: Olkiluoto NPP

Inventory Reporting Date: December 2006 Waste Matrix: FIN_RADW

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
reactor waste	Storage NPP-Area	No	1232	100	0	0	0	0	0	0	Yes
reactor waste	Storage OL1	No	27	100	0	0	0	0	0	0	Yes
reactor waste	Storage OL2	No	26	100	0	0	0	0	0	0	Yes
reactor waste	Storage OL1	Yes	2	100	0	0	0	0	0	0	Yes
Comment #7176: The additional characteristics of the waste Unprocessed: solid (non-dispersible)											
reactor waste	Disposal VLJ-KAJ	Yes	1627	100	0	0	0	0	0	0	No
reactor waste	Disposal VLJ-MAJ	Yes	2930	100	0	0	0	0	0	0	No
Comment #7177: The additional characteristics of the waste Processed: solid (non-dispersible)											

Waste Class	Status
spent fuel (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Solidification			same	

Reporting Group Posiva, Site Structure: Olkiluoto

Country: Finland Reporting Year: 2006

Full Name: Olkiluoto, the forthcoming repository for spent fuel

Location: Olkiluoto, Eurajoki municipality

License Holder(s) : not licensed, the operator will be Posiva Oy.

The following list the waste management facilities that are located at this site.

Facility: SFdisposal

Description	All Finnish spent nuclear fuel is planned to be disposed at the Olkiluoto SF repository. The construction licence application will be current in 2012 and the operating licence application in 2020.

Disposal part of the "SFdisposal" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
reactor waste	No	No	spent fuel	No	Yes
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is non modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	not specified
Depth (m)	400-700		
Host medium	crystalline rock (gneiss)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1983	1985
site selection			2001
design			2003
construction	Yes	2012	

Comment #9657: Disposal Facility SFdisposal

Posiva has started grouting an underground rock laboratory, called ONKALO, in 2004. One of the main purposes of ONKALO is to verify the suitability of the site for disposal. ONKALO is also planned to be part of the forthcoming disposal repository.

Reporting Group STUK/TKO, Site Structure: SSOW

Country: Finland Reporting Year: 2006

Full Name: Storage for Stated Owned Waste

Location: Eurajoki, Finland

License Holder(s) : The operating organisation for the SSOW is Research and Environmental Surveillance (STUK), and the authority is Nuclear Waste and Materials Regulation (STUK).

The following list the waste management facilities that are located at this site.

Facility: SSOW

Description	Storage of state owned waste (Pienjäteluola), located in the VLJ-cave.

Storage part of the "SSOW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
small user waste	Yes	Yes			
SRS	Yes	No			

List SRS?	No
Capacity	Amount of packed waste can not be >100 m3. Non nuclear waste is accepted.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSOW	cave	1997	No	No	No	Yes

Reporting Group STUK/TKO, Site Data: SSOW

Country: Finland Reporting Year: 2006

Full Name: Storage for Stated Owned Waste

Inventory Reporting Date: December 2006 Waste Matrix: FIN_RADW3

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
small user waste	Storage SSOW	No	50.5	0	0	0	100	0	0	0	No

Reporting Group VTT/FIR, Site Structure: FIR

Country: Finland Reporting Year: 2006

Full Name: VTT FIR

Location: Espoo, Finland

License Holder(s) : Technical Research Centre of Finland (Valtion Teknillinen Tutkimuskeskus)

The following list the waste management facilities that are located at this site.

Facility: LILW-Proc

Description	processing facility for LILW

Processing part of the "LILW-Proc" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	No	No	spent fuel	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1962

Facility: LILW-Store

Description	storage facility for LILW

Storage part of the "LILW-Store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	Yes	Yes	spent fuel	No	No
SRS	No	No			
List SRS?	No				
Capacity	The facility stores all waste produced by the research reactor of FiR.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Cellar	building	1962	No	No	No	No

Reporting Group VTT/FIR, Site Structure: FIR

Country: Finland Reporting Year: 2006

Facility: SF storage

Description	Reactor hall storage for the spent fuel of the research reactor

Storage part of the "SF storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	No	No	spent fuel	Yes	Yes
SRS	No	No			

List SRS?	No
Capacity	Can contain all spent fuel of the research reactor.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Well	well	1962	No	No	No	No

Reporting Group VTT/FIR, Site Data: FIR

Country: Finland Reporting Year: 2006

Full Name: VTT FIR

Inventory Reporting Date: December 2006 Waste Matrix: FIN_RADW2

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW	Storage LILW-Store	No	6	50	0	0	50	0	0	0	No

Comment #7178: The additional characteristics of the waste

Unprocessed: resin, solid (non-dispersible)

Waste Class	Status
spent fuel (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction	Yes			
Size Reduction	Yes			

REGULATORS

Country: Finland Reporting Year: 2006

Name	STUK
Full Name	Radiation and nuclear Safety Authority
Division	Nuclear Waste and Materials Regulation
City or Town	Helsinki

Comment #7154: Wastes that are regulated by the Regulator

Matrix FIN_RADW - reactor waste; Matrix FIN_RADW2 - LILW; Matrix FIN_RADW3 - small waste; and also spent fuel

REGULATIONS / LAWS

Country: Finland Reporting Year: 2006

Name	NE Act	
Title or Name	Nuclear Energy Act (990/1987)	
Reference Number	990/1987	
Date Promulgated or Proclaimed	1988-12-11	Law

Comment #7155: Wastes that are regulated by the Law

- Matrix FIN_RADW - reactor waste; Matrix FIN_RADW2 - LILW

Name	NW Fund	
Title or Name	Decree on the State Nuclear Waste Management Fund (162/1988)	
Reference Number	162/1988	
Date Promulgated or Proclaimed	1988-02-12	Law

Comment #7156: Wastes that are regulated by the Regulation

- Matrix FIN_RADW - reactor waste; also SF

Name	Rad Act	
Title or Name	Radiation Act (592/1991)	
Reference Number	592/1991	
Date Promulgated or Proclaimed	1991-03-27	Law

Comment #7158: Wastes that are regulated by the Law

Matrix FIN_RADW3 - small waste

Name	Gov R 478	
Title or Name	Decision of the Government on the General Regulations for the Safety of Spent Fuel Disposal (478/1999)	
Reference Number	478/1999	
Date Promulgated or Proclaimed	1999-03-25	Regulation

Name	Gov R 398	
Title or Name	Decision of the Government on the General Regulations for the Safety of a Disposal Facility for Reactor Waste (398/1991)	
Reference Number	398/1991	
Date Promulgated or Proclaimed	1991-02-14	Regulation

Comment #7160: Wastes that are regulated by the Regulation

Matrix FIN_RADW - reactor waste

REGULATIONS / LAWS

Country: Finland Reporting Year: 2006

Name	Gov R 395	
Title or Name	Decision of the Government on the General Regulations for the Safety of Nuclear Power Plants (395/1991)	
Reference Number	395/1991	
Date Promulgated or Proclaimed	1991-03-01	Regulation

Name	YVL 8.1	
Title or Name	Guide YVL 8.1, Disposal of low and intermediate level waste from the operation of nuclear power plants (2003).	
Reference Number	YVL 8.1	
Date Promulgated or Proclaimed	2003-09-10	Regulation

Comment #7162: Wastes that are regulated by the Regulation

Matrix FIN_RADW - reactor waste

Name	YVL 8.2	
Title or Name	Guide YVL 8.2, Premises for removal of regulatory control from nuclear waste (2002).	
Reference Number	YVL 8.2	
Date Promulgated or Proclaimed	2002-03-25	Regulation

Name	YVL 8.3	
Title or Name	Guide YVL 8.3, Treatment and storage of low and intermediate level waste at a nuclear power plant (2005).	
Reference Number	YVL 8.3	
Date Promulgated or Proclaimed	2005-06-29	Regulation

Name	YVL 8.4	
Title or Name	Guide YVL 8.4, Long-term safety of disposal of spent nuclear fuel (2001).	
Reference Number	YVL 8.4	
Date Promulgated or Proclaimed	2001-05-23	Regulation

REGULATIONS / LAWS

Country: Finland Reporting Year: 2006

Name	ST 6.2	
Title or Name	Guide ST 6.2, Radioactive wastes and discharges (1999).	
Reference Number	ST 6.2	
Date Promulgated or Proclaimed	1999-07-01	Regulation

Comment #7166: Wastes that are regulated by the Regulation

Matrix FIN_RADW3 - small waste

Name	ST 5.1	
Title or Name	ST Guide 5.1 Radiation Safety of Sealed Sources and Equipment Containing Them, 17 February 1999	
Reference Number	ST 5.1	
Date Promulgated or Proclaimed	1999-02-17	Regulation

Comment #7167: Wastes that are regulated by the Regulation

Matrix FIN_RADW3 - small waste

Name	YVL 8.5	
Title or Name	Guide YVL 8.5, Operational safety of a disposal facility for spent nuclear fuel (2002).	
Reference Number	YVL 8.5	
Date Promulgated or Proclaimed	2002-12-23	Regulation

Name	STUK Act	
Title or Name	Act on the Finnish Centre for Radiation and Nuclear Safety (1069/1983)	
Reference Number	1069/1983	
Date Promulgated or Proclaimed	1983-12-22	Law

Name	ACNS Dec	
Title or Name	Decree on Advisory Committee on Nuclear Safety (164/1988)	
Reference Number	164/1988	
Date Promulgated or Proclaimed	1988-02-12	Law

REGULATIONS / LAWS

Country: Finland Reporting Year: 2006

Name	NE Dec	
Title or Name	Nuclear Energy Decree (161/1988)	
Reference Number	161/1988	
Date Promulgated or Proclaimed	1988-02-12	Law

Name	TPL Act	
Title or Name	Act on Third Party Liability (484/1972)	
Reference Number	484/1972	
Date Promulgated or Proclaimed	1972-06-06	Law

Name	TPL Dec	
Title or Name	Decree on the Implementation of Third Party Liability (486/1972)	
Reference Number	486/1972	
Date Promulgated or Proclaimed	1972-06-16	Law

Name	Rad Dec	
Title or Name	Radiation Decree (1512/1991)	
Reference Number	1512/1991	
Date Promulgated or Proclaimed	1991-12-20	Law

Name	STUK Dec	
Title or Name	Decree on the Finnish Centre for Radiation and Nuclear Safety (618/1997)	
Reference Number	618/1997	
Date Promulgated or Proclaimed	1997-07-01	Law

REGULATIONS / LAWS

Country: Finland Reporting Year: 2006

Name	ACNE Dec	
Title or Name	Decree on Advisory Committee on Nuclear Energy (163/1988)	
Reference Number	163/1988	
Date Promulgated or Proclaimed	1988-02-12	Law

Name	EIA Act	
Title or Name	Act on the Environmental Impact Assessment Procedure (468/1994)	
Reference Number	468/1994	
Date Promulgated or Proclaimed	1996-06-10	Law

Name	EIA Dec	
Title or Name	Decree on Environmental Impact Assessment Procedure (792/1994)	
Reference Number	792/1994	
Date Promulgated or Proclaimed	1994-08-25	Law

Name	OGA Act	
Title or Name	Act on the Openness of Government Activities (621/1999)	
Reference Number	621/1999	
Date Promulgated or Proclaimed	1999-05-21	Law

Name	PNRE Dec	
Title or Name	Decree of Ministry of Interior Concerning Planning for Nuclear or Radiological Emergences and for Informing the Public about Radiation Hazards (774/2001)	
Reference Number	774/2001	
Date Promulgated or Proclaimed	2001-08-31	Law

REGULATIONS / LAWS

Country: Finland Reporting Year: 2006

Name	DiP 1983	
Title or Name	Decision in Principle of 10th November 1983 by the Government on the Objectives to be Ob-served in Carrying out Research, Surveys and Planning in the Field of Nuclear Waste Man-agement	
Reference Number	Decision in Principle of 10th November 1983	
Date Promulgated or Proclaimed	1983-11-10	Regulation

Name	Gov R 165	
Title or Name	Decision of the Government Concerning the Providing for Nuclear Waste Management Costs (165/1988)	
Reference Number	165/1988	
Date Promulgated or Proclaimed	1988-02-18	Regulation

Name	Gov R 396	
Title or Name	Decision of the Government on the General Regulations for Physical Protection of Nuclear Power Plants (396/1991)	
Reference Number	396/1991	
Date Promulgated or Proclaimed	1991-02-14	Regulation

Name	Gov R 397	
Title or Name	Decision of the Government on the General Regulations for Emergency Response Arrange-ments at Nuclear Power Plants (397/1991)	
Reference Number	397/1991	
Date Promulgated or Proclaimed	1991-02-14	Regulation

MILESTONES

Country: Finland

Reporting Year: 2006

Start Year or Reference Year:	1992	End Year	1992
Description of Milestone			
1992 start of operation of Olkiluoto LILW repository.			

Start Year or Reference Year:	1998	End Year	1998
Description of Milestone			
1998 start of operation of Loviisa LILW repository.			

Start Year or Reference Year:	2001	End Year	2001
Description of Milestone			
DiP and site selection for SF disposal.			

Policies

Country: Finland Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #9661: Policies National Systems-Policy

Ref. to Decision in Principle of 10th November 1983 by the Government on the Objectives to be Observed in Carrying out Research, Surveys and Planning in the Field of Nuclear Waste Management.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Comment #9662: Policies National Systems-Strategies

Ref. to Decision in Principle of 10th November 1983 by the Government on the Objectives to be Ob-served in Carrying out Research, Surveys and Planning in the Field of Nuclear Waste Man-agement.

Requirements (Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

Comment #9663: Policies National Systems-Requirements

Ref. to Nuclear Energy Act (990/1987), Nuclear Energy Decree (161/1988), Decree on the State Nuclear Waste Management Fund (162/1988), Act on Third Party Liability (484/1972), Decree on the Implementation of Third Party Liability (486/1972), Radiation Act (592/1991), Radiation Decree (1512/1991), Act on the Finnish Centre for Radiation and Nuclear Safety (1069/1983) and Decree on the Finnish Centre for Radiation and Nuclear Safety (1618/1997).

Responsibilities (Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete

Policies

Country: Finland | **National Systems** | Reporting Year: 2006

17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Comment #9664: Policies National Systems-Responsibilities

Ref. to Nuclear Energy Act (990/1987), Nuclear Energy Decree (161/1988), Decree on the State Nuclear Waste Management Fund (162/1988), Act on Third Party Liability (484/1972), Decree on the Implementation of Third Party Liability (486/1972), Radiation Act (592/1991), Radiation Decree (1512/1991), Act on the Finnish Centre for Radiation and Nuclear Safety (1069/1983) and Decree on the Finnish Centre for Radiation and Nuclear Safety (1618/1997).

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below		

Comment #9691: Policies National Systems-Clearance

YVL 8.2 Guide.

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	No
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

Comment #114: EIS

is called Environmental Impact Assessment

Comment #115: PA

PA is part of the SA.

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

Comment #9685: Policies Disposal Facilities-Operation

Two operating disposal facilities for LILW exist. Regulatory guides include general criteria for waste packages to be disposed of. The FSAR's of the disposal facilities include waste package specifications which are to be approved by the regulator.

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No

65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

Comment #116: mobile waste processing facility

Finland has a mobile waste processing facility (NURES) which is used only at the Loviisa NPP site.

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)

Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)

71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

Comment #117: Documented procedures

ST 5.1 Guide.

	Agreements	(Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

Comment #9686: Policies Spent SRS-Agreements

Sealed sources are not manufactured in Finland but all are imported, thus the agreements are between Finnish users and foreign manufacturers.

Policies

Country: Finland **Spent SRS** Reporting Year: 2006

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Comment #118: Regulations for free-release SRS

ST 6.2 Guide.

Comment #9687: Policies Spent SRS-Release / Disposal

Spent sealed sources with activity inventories below specified limits will be disposed of with LILW from NPPs.

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Comment #9665: Policies Import-Export-Radioactive Waste

Also import/export of spent fuel is prohibited by the law.

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes

107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

Comment #9688: Policies Decommissioning-Facilities

Nuclear fuel cycle facilities: FiR, NPPs and related spent fuel and waste management facilities.
Non-fuel cycle facilities: particle accelerators, radiochemical laboratories, hot cell for material testing

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Comment #9689: Policies Decommissioning-Timeframe

Time frames of decomission for nuclear fuel cycle facilities are included in periodically updated decomissioning plans, which are reviewed by the regulator.

Comment #9690: Policies Decommissioning-Timeframe

For non nuclear fuel cycle facilities is applied case-by-case judgement.

Country Waste Profile Report for

France

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-27 11:13:11

Waste Class Matrix(ces) Used/Defined

Country: France (French Republic) Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: M1

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
TFA	100	0	0
FMA-VC	100	0	0
FA-VL	0	100	0
MA-VL	0	100	0
HA	0	0	100

Description: M1 valid for all producers. Classification based on disposal options & nature of waste (act. level & half-life of main radionuclides) and not specified by law/regulation. The French classes are: TFA (VLLW), FMA-VC (LILW, short-lived), FA-VL (LLW, long-lived), MA-VL (ILW, long-lived), HA (HLW). Percentages have been indicated for TFA and FA-VL as required by the NEWMDB system. However they are artificial since, according to our opinion, they do not correspond to any IAEA classes (see comments).

Comment #139: TFA and FA-VL waste

TFA (very low level) waste mainly originates from nuclear plants dismantling. Its activity level is close to the one defined by the international organizations for exempt waste. The disposal option is a surface repository the design of which is more simple than the design of the Centre de l'Aube facility (the TFA repository has been in operation since mid 2003). TFA waste can be assimilated to neither of the IAEA classes. FA-VL (low level long live) waste comprise graphite waste from former NPP's and radium waste which mainly originates from non-nuclear industries. The disposal option is a sub-surface repository. This type of waste can roughly be assimilated to the IAEA LILW-LL classe.

Comment #14741: Waste Matrix M1

The National Inventory of Radioactive Waste and Recoverable Material that it groups into waste families that present homogeneous characteristics. It describes the state of the waste at the end of 2004.

This inventory, produced by Andra with the help of the waste producers under the supervision of the public authorities, will be regularly updated every three years.

The volumes presented in the Inventory are those of the packaged waste after conditionning or that make allowance for the intended conditionning. Thus the figures are given as equivalent conditioned volumes in cubic meters.

Waste Class Matrix(ces) Used/Defined

Country: France (French Republic) Reporting Year: 2006

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Comment #14628: Definitions for Unprocessed and Processed Waste

All the volumes are presented in the processed waste table because the waste national inventory is presenting the conditioning volume estimates based on the process envisaged by industry.

Groups Overview

Country: France (French Republic) Reporting Year: 2006

Reporting Group: **National**

Inventory Reporting Date: December 2004

Waste Matrix Used: M1

Description: A single "theoretical" site is considered for the present submission: the quantities of waste correspond to the sum of the quantities existing on the various sites.

Site Name	Facility Name	Facilities Defined		
All sites	DEF	processing	storage	
	EFM	processing	storage	
	NNI	processing	storage	
	NPP	processing	storage	
	R.C.	processing	storage	
	R.P.	processing	storage	
	CSFMA.		storage	disposal
	CSTFA		storage	disposal
	C. M.			disposal

Comment #284: Storage

Storage areas or storage buildings often exist on the sites where waste is generated, and, if it is the case, treated and conditionned. The storage facilities are either modular or non-modular. In general, storage facilities have adequate remaining capacity.

Comment #287: Centre de l'Aube capacity

The Centre de l'Aube is authorized for 1,000,000 m3 and the piece of land which belongs to Andra (the operator of the disposal facility) is sufficient for that. The waste which has already been diposed of represents nearly 17% of the authorized capacity. The disposal structures are built as and when required. Since the facility commissioning in 1992, 73 concrete- or gravel-filled disposal structures have been sealed.

Comment #307: Comment about TFA and FA-VL waste

As it is explained in the comment related to the waste matrix, France considers that TFA waste is not a LIL-SL waste and
FA-VL is something between 2 classes of the IAEA classification (LIL-SL waste and LIL-LL waste).

Reporting Group National, Site Structure: All sites

Country: France (French Republic) | Reporting Year: 2006

Full Name: All French sites

Location: France

License Holder(s) :

Comment #281: All Sites

1- storage areas or storage buildings often exist on the sites where waste is generated, and, if it is the case, treated and conditionned. The storage facilities are either modular or non-modular: arbitrarily they are mentionned as modular. The occupied capacity varies from one facility to another.
2- The authorized capacity of the Centre de stockage FMA de l'Aube facility is 1,000,000 m3, but the engineered disposal vaults are built as and when required.
3- The authorized capacity of the Centre de stockage TFA de l'Aube facility is 650,000 m3, but the excavated disposal cells are built as and when required.

The following list the waste management facilities that are located at this site.

Facility: DEF

Description	Research and production centers for nuclear weapon (VALDUC, BRUYERE LE CHATEL, ...), Army (especially in relation with submarine nuclear reactors)

Processing part of the "DEF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	Yes	Yes
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "DEF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	Yes	Yes
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				
Capacity	storage capacity consistent with quantities of waste (already generated and future waste)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DEF	building	0	No	No	Yes	Yes

Reporting Group National, Site Structure: All sites

Country: France (French Republic) Reporting Year: 2006

Facility: EFM

Description	Several sites (Enrichment, Fuel manufacture, Maintenance,...), Waste treatment or maintenance facilities.

Processing part of the "EFM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	No	MA-VL	No	No
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "EFM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	No	MA-VL	No	No
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				

Capacity	storage capacity consistent with quantities of waste (already generated and future waste)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
EFM	building	0	No	No	Yes	Yes

Facility: NNI

Description	Non Nuclear Industries (industries using natural radioactive materials such as rare earth extraction, phosphate industries..., and polluted sites) and miscellaneous industrial activities (manufacture of sources, monitoring, special items)

Processing part of the "NNI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	Yes	Yes
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "NNI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	No	No
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				
Capacity	storage capacity consistent with quantities of waste (already generated and future waste)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
NNI	building	0	No	No	Yes	Yes

Facility: NPP

Description	Nuclear Power Plants (production of electricity).

Processing part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	Yes	Yes
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	Yes	Yes
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				

Capacity	storage capacity consistent with quantities of waste (already generated and future waste)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
NPP	building	0	No	No	Yes	Yes

Facility: R.C.

Description	Research Centers (for electro-nuclear activities, physics, chemistry, biomedical research) and medical activities (diagnostics, therapeutics, analyses)

Processing part of the "R.C." facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	Yes	Yes
HA	Yes	No			
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "R.C." facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	Yes	MA-VL	Yes	Yes
HA	Yes	No			
SRS	Yes	Yes			
List SRS?	No				

Capacity	storage capacity consistent with quantities of waste (already generated and future waste)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RC	building	0	No	No	Yes	Yes

Facility: R.P.

Description	LA HAGUE reprocessing plant (reprocessing of spent fuels) and MARCOULE plant (reprocessing at MARCOULE has stopped and is now being decommissioning).

Processing part of the "R.P." facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	No	MA-VL	Yes	Yes
HA	Yes	Yes			
SRS	Yes	Yes			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "R.P." facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	Yes	Yes
FA-VL	Yes	No	MA-VL	Yes	Yes
HA	Yes	Yes			
SRS	Yes	Yes			
List SRS?	No				
Capacity	storage capacity consistent with quantities of waste (already generated and future waste)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RP	building	0	No	No	Yes	Yes

Facility: CSFMA.

Description	Centre de stockage FMA de l`Aube facility: surface disposal facility for FMA-VC (low- and intermediate-level, short lived) waste.

Storage part of the "CSFMA." facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	No	No	FMA-VC	Yes	Yes
FA-VL	No	No	MA-VL	No	No
HA	No	No			
SRS	Yes	Yes			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	0	No	No	No	Yes

Disposal part of the "CSFMA." facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	No	No	FMA-VC	Yes	Yes
FA-VL	No	No	MA-VL	No	No
HA	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	No				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	200000	Capacity -planned (m3)	1000000
Depth (m)	0		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1984	1985
site selection		1984	1985
design		1985	2060
construction		1989	2060
commissioning		1992	2060
operation		1992	2060
closure	Yes	2060	2065
institutional control	Yes	2070	

Comment #7575: Capacity of the CSFMA

The authorized capacity of the Centre de stockage FMA de l'Aube facility - CSFMA is 1,000,000 m3, but the engineered disposal vaults are built as and when required.

Facility: CSTFA

Description	Centre de stockage TFA facility (for very low level waste) opened in August 2003

Storage part of the "CSTFA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	No	No
FA-VL	No	No	MA-VL	No	No
HA	No	No			
SRS	No	No			

List SRS?	No
Capacity	unknown

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	2003	No	No	No	No

Comment #14637: Storage Facility CSTFA

The CSTFA is divided in several zones.
Close to 70% of the waste (non-compactable rubble, metal scrap, etc.) received at the facility are directed to the disposal area after transiting through a storage building.
About 30% of the waste received may be submitted to specific compaction and solidification treatments in dedicated areas.
Unplaced waste in disposal cell is accounted for stored VLLW.

Disposal part of the "CSTFA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	Yes	Yes	FMA-VC	No	No
FA-VL	No	No	MA-VL	No	No
HA	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No

List SRS	No		
Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	30000	Capacity -planned (m3)	650000
Depth (m)			
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		2003	2030

Comment #14638: Disposal Facility CSTFA

Since summer 2003 the VLLW repository has been taking in what is called "very low level waste". It covers an area of 45 hectares, mostly within the commune of Morvilliers. It consists of four distinct areas: a waste disposal area, an earth dumping area, a storm basin and an industrial zone.

Over the next thirty years, the VLLW repository is intended to take in 650,000m3 of waste, mainly coming from the dismantling of decommissioned French nuclear sites.

Reporting Group National, Site Structure: All sites

Country: France (French Republic) Reporting Year: 2006

Facility: C. M.

Description	Centre de la Manche facility: surface disposal facility for LIL-SL waste.

Disposal part of the "C. M." facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
TFA	No	No	FMA-VC	Yes	No
FA-VL	No	No	MA-VL	No	No
HA	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	527225	Capacity -planned (m3)	527225
Depth (m)	0		
Host medium	crystalline rock (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1967	1967
site selection		1967	1967
design		1967	1994
construction		1969	1994
commissioning		1969	1994
operation		1969	1994
closure		1991	1997
institutional control		2002	

Reporting Group National, Site Data: All sites

Country: France (French Republic) Reporting Year: 2006

Full Name: All French sites

Inventory Reporting Date: December 2004 Waste Matrix: M1

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TFA	Storage CSTFA	Yes	1913	45	8	1	20	26	0	0	No
TFA	Storage DEF	Yes	25031	0	0	0	0	100	0	0	No
TFA	Storage EFM	Yes	11376	0	100	0	0	0	0	0	No
TFA	Storage NNI	Yes	1560	0	0	0	100	0	0	0	No
TFA	Storage NPP	Yes	20012	100	0	0	0	0	0	0	No
TFA	Storage R.C.	Yes	38336	0	0	0	100	0	0	0	No
TFA	Storage R.P.	Yes	29625	0	0	100	0	0	0	0	No
Comment #3859: TFA Because of the specificity of the waste and the repository specifications, it is difficult to decide wheither a waste is "unprocessed" or "processed". Therefore all TFA waste volumes are arbitrarily recorded as processed waste.											
TFA	Disposal CSTFA	Yes	16644	32	5	1	49	13	0	0	No
FMA-VC	Storage CSFMA.	Yes	788	55	12	12	18	3	0	0	No
FMA-VC	Storage DEF	Yes	5050	0	0	0	0	100	0	0	No
FMA-VC	Storage EFM	Yes	3108	0	100	0	0	0	0	0	No
FMA-VC	Storage NNI	Yes	4	0	0	0	100	0	0	0	No
FMA-VC	Storage NPP	Yes	10504	100	0	0	0	0	0	0	No
FMA-VC	Storage R.C.	Yes	8081	0	0	0	100	0	0	0	No
FMA-VC	Storage R.P.	Yes	71144	0	0	100	0	0	0	0	No
Comment #3860: FMA-VC As the FMA-VC (LILW-SL) waste volumes are accounted for waste in conditionned configuration, all volumes are recorded in the processed waste category.											
FMA-VC	Disposal C. M.	Yes	527225	0	0	0	0	0	0	100	No
FMA-VC	Disposal CSFMA.	Yes	167823	42	10	35	10	3	0	0	No
Comment #3861: The additional characteristics of the waste Processed: solid (non-dispersible), sludge, resin											
FA-VL	Storage DEF	Yes	401	0	0	0	0	100	0	0	No
FA-VL	Storage EFM	Yes	18025	0	100	0	0	0	0	0	No
FA-VL	Storage NNI	Yes	17447	0	0	0	100	0	0	0	No
FA-VL	Storage NPP	Yes	6078	100	0	0	0	0	0	0	No
FA-VL	Storage R.C.	Yes	37	0	0	0	100	0	0	0	No
FA-VL	Storage R.P.	Yes	5136	0	0	100	0	0	0	0	No
Comment #3862: FA-VL The volumes of unprocessed waste are the volumes of the future packages when the unprocessed waste is conditioned. Therefore all FA-VL waste are accounted as processed waste.											
MA-VL	Storage DEF	Yes	81	0	0	0	0	100	0	0	No

MA-VL	Storage NNI	Yes	125	0	0	0	100	0	0	0	No
MA-VL	Storage NPP	Yes	265	100	0	0	0	0	0	0	No
MA-VL	Storage R.C.	Yes	9300	0	0	0	100	0	0	0	No
MA-VL	Storage R.P.	Yes	35746	0	0	100	0	0	0	0	No

Comment #3863: MA-VL

The volumes of unprocessed waste are the volumes of the future packages when the unprocessed waste is conditioned. Therefore all MA-VL waste are recorded as processed waste.

HA	Storage R.C.	Yes	10	0	0	0	100	0	0	0	No
HA	Storage R.P.	Yes	1841	0	0	100	0	0	0	0	No

Comment #3864: HA

The volumes of unprocessed waste are the volumes of the future packages when the unprocessed waste is conditioned. Therefore all HA waste are recorded as processed waste.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Calcination			same	
Chemical Precipitation			decrease	
Compaction			same	
Deactivation (of Sodium)		Yes		
Decontamination			same	
Evaporation			same	
Incineration			increase	
Ion Exchange			same	
Mercury Treatment		Yes		
Metal Melting			increase	
Organic Destruction			same	
Radionuclide Separation		Yes		
Shredding and Compaction			increase	
Size Reduction			same	
Super Compaction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			decrease	
Cementation			same	
Encapsulation			same	
Polymerization			same	
Stabilization			same	
Vitrification			same	

REGULATORS

Country: France (French Republic) Reporting Year: 2006

Name	DPPR
Full Name	Direction de la Prévention des Pollutions et des Risques (Ministère de l'Environnement)
Division	
City or Town	Paris

Comment #3854: Wastes that are regulated by the Regulator

Matrix M1 - TFA

Name	ASN
Full Name	Autorité de Sûreté Nucléaire The French Nuclear Safety Authority
Division	
City or Town	PARIS

REGULATIONS / LAWS

Country: France (French Republic) Reporting Year: 2006

Name	Law	
Title or Name	Law 91-1381 on Radioactive Waste Management Research (research on high level long lived radioactive waste and creation of the French Radioactive Waste Management Agency)	
Reference Number	91-1381	
Date Promulgated or Proclaimed	1991-12-30	Law

Comment #162: Law 91-1381

The law 91-1381 has two aspects:
1- it defines the research in the field of high level long lived radioactive waste management(MA-VL and HA waste),
2- it creates Andra, the French Agency in charge of the radioactive waste management.As such, the law involves all the classes of the radioactive wastes.

Comment #3855: Wastes that are regulated by the Law

Matrix M1 - FA-VL, FMA-VC, HA, MA-VL, TFA

Name	RFS 1-2	
Title or Name	Basic Safety Rule I-2 concerning the safety objectives and the design bases of surface repositories for low intermediate level short lived waste.	
Reference Number	RFS I-2	
Date Promulgated or Proclaimed	1984-06-19	Regulation

Comment #3856: Wastes that are regulated by the Regulation

Matrix M1 - FMA-VC

Name	RFS 3-2-e	
Title or Name	Basic Safety Rule III-2-e concerning the acceptance conditions of low intermediate short lived waste in a surface repository.	
Reference Number	RFS III-2-e	
Date Promulgated or Proclaimed	1995-05-29	Regulation

Comment #163: RFS III-2-e

The first version of the RFS III-2-e was issued on 31 october 1986.

Comment #3857: Wastes that are regulated by the Regulation

Matrix M1 - FMA-VC

REGULATIONS / LAWS

Country: France (French Republic) Reporting Year: 2006

Name	RFS 3-2-f	
Title or Name	Basic Safety Rule III-2-f concerning the objectives to be adopted in the design and construction of a deep geological formation radioactive waste repository to ensure safety after closure of the repository.	
Reference Number	RFS III-2-f	
Date Promulgated or Proclaimed	1991-06-10	Regulation

Comment #3858: Wastes that are regulated by the Regulation

Matrix M1 - HA, MA-VL

Name	Plan. Act	
Title or Name	Planning Act N° 2006-739 of 28 June 2006 Concerning the Sustainable Management of Radioactive Materials and Waste	
Reference Number	2006-739	
Date Promulgated or Proclaimed	2006-06-28	Law

Comment #14736: Regulation Act

The Planning Act N° 2006-739 defines a number of principles and strategic orientations for the implementation of a high level and long lived radioactive waste repository and sets guidelines for the procedure leading to a license application. It delegates specific research and development responsibilities to Andra, and ensures adequate funding will be available for Andra to act upon these responsibilities.

MILESTONES

Country: France (French Republic) Reporting Year: 2006

Start Year or Reference Year:	1969	End Year	1994
Description of Milestone			
Operation of the Centre de la Manche facility (surface disposal of LIL-SL). A new repository started in 1992 (Centre de l'aube facility).			

Start Year or Reference Year:	1994	End Year	1999
Description of Milestone			
Following the mediation mission led by a Member of Parliament, Andra conducted surveys on 3 sites for underground research laboratories (URL). In 1996 Andra filed 3 applications for installation and operating permits for the URL's. In 1999, the French government authorized Andra to construct a URL in a clay formation at the border of Meuse and Haute-Marne departments (east of France). The works and experiments are in progress. A report will be sent to the government by the end of 2005. Parallel to these works, Andra uses the available knowledge of the French granitic formations and participates to experiments in URL's (in granite) abroad in order to build up a file which will be sent to the government at the same time.. CEA studies the 2 other research directions set by the law of 30 december 1991 (separation/transmutation, long term storage and conditionning) and the works are well in progress.			

Start Year or Reference Year:	2003	End Year	
Description of Milestone			
The very low level waste repository started in August 2003			

Start Year or Reference Year:	2005	End Year	2006
Description of Milestone			
In December 2005 the Waste Managing Agency - Andra submitted to the government the final version of "Dossier 2005", confirming the feasibility of an underground repository in the Callovo-Oxfordian argilite formation with a reversibility rationale. In June 2006 the Parliament adopted the Planning Act related to sustainable management of radioactive materials and waste, which notably describes Andra's future missions and orientations. It prescribes to commission in 2025 the deep geological repository applied for.			

Policies

Country: France (French Republic) Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #159: Policy

The French radioactive waste management policy is defined by the law of 30 december 1991. Concluding 15 years of research, the 2006 Planning Act prescribes an extensive national waste management policy, including both recoverable and non-recoverable radioactive materials.
It also provides a legislative framework for the dismantling of nuclear facilities and, more particularly, it addresses the issue of secured financial provisions to be constituted by operators and also placed under Parliament control.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Comment #198: Strategies

Strategies to implement a national policy have been developed through the 2006 Planning Act (Article 6-I). This Act prescribes that a “National Radioactive Material and Waste Management Plan shall take stock of existing modes for managing radioactive materials and waste”. This Plan is required to be established and updated every three years.

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

Comment #164: Funding

Article 15 of Planning Act No. 2006-739 Article L.542-12-1:
Within the National Radioactive Waste Management Agency (Andra) shall be constituted a dedicated fund in order to finance investigations and studies relating to the storage and deep geological disposal of radioactive waste. All operations of that fund shall be subject to a separate accounting with a view to individualising the resources and the uses of the fund within the Agency's budget. The resources of the fund shall originate from the product of the additional "research tax" to the tax on basic nuclear installations referred to in Section V of Article 43 of the 2000 Finance Act No. 99-1172 of 30 December 1999. The Agency shall receive a State subsidy in order to contribute to the financing of the general-interest missions entrusted upon the Agency pursuant to the conditions described in Subsections 1° and 6° of Article L. 542-12.

Comment #199: Set of objectives

For Andra, in charge of the long term management of radioactive waste, there are several Safety Rules which were issued by the Regulator (ASN);

Comment #200: Inventory

See the comment related to the item "Activities" (National Systems).

Comment #201: Information

Examples:
documents for public inquiries, information to the Local Information and Oversight Committees, information to the public (brochures, website...), the inventory of radioactive waste and re-usable nuclear matters, ...

	Responsibilities	(Complete;Incomplete)
Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.		
Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Comment #202: Legal framework

The legal framework for the long term management of radioactive waste is the law of December 30, 1991 that has been extended by the 2006 Planning Act related to sustainable management of radioactive materials and waste.

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes

31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

Comment #165: Waste inventory

Various inventories already exist, made by waste generators and Andra. Each inventory is suitable for the need to which it corresponds. Andra has a WIRKS (Waste Information Record Keeping System) for the waste which has been disposed of in the Centre de l'Aube facility. Andra has also established inventories for the projects, including an evaluation of the future waste.
In 2001 the French government decided to create a National Inventory (existing waste and future waste to be generated by the existing nuclear plants and other industrial activities and also the re-usable nuclear matters such as spent fuel, plutonium, uranium) for a large information of the public and stakeholders. Andra is entrusted with this task on the basis of the recommendations made by Andra's chairman in his report sent to the French government in 2000. The report should be issued in October 2004.

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Comment #14641: Policies National Systems-Clearance

Although permitted by directive 96/29 Euratom, French regulations have not incorporated the notion of clearance threshold, in other words the generic level of radioactivity below which waste from a nuclear activity can be disposed of without monitoring. In practice, elimination of waste is monitored on a case by case basis when the activities generating them are subject to licensing; otherwise these discharges are the subject of technical specifications.

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All

Policies

Country: France (French Republic) **Disposal Facilities** Reporting Year: 2006

43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Comment #166: Post-closure

1- The principles concerning the maintenance of records have been established by Andra, for the Centre de la Manche facility post-closure. Andra has already archived most of the documents needed for long term.
2- The Centre de la Manche facility is now in the institutional post closure period. Rules to be followed has been given to Andra.

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

Comment #167: Policies/procedures

1- Requirement for waste minimization: see law 75-633 of July 1975, and ministerial order of December 31, 1999 (each waste generator has to issue a document "waste survey"), and 2006 Planning Act (Article 6-I, § II.1: “the reduction of the quantity and toxicity of radioactive waste shall be sought notably by processing and conditioning radioactive waste”),
2- waste storage: in addition to the existing procedures, a Basic Safety Rule concerning the interim storages will be issued in the next future (text under study: see the annual report of the Safety Authority),
3- waste processing prior to storage: there are some exceptions (in particular, in the case of historical waste or in the case of process under study, ...)

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	Yes

Comment #203: Processing facilities

1- There is not an unique processing facity for all the wastes. The wastes are often conditionned on the sites where they have been generated. However, in some cases they are conditionned in centralized facilities: La Hague plant (waste originated from spent fuel), Centre de l'Aube facility for some waste...
2- Mobile waste processing facilities are used for a few categories of waste only.

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	Yes
112	Currently, are there any wastes (processed or unprocessed, including the products of reprocessing) or spent fuel from another country being stored in your country?	not answered

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

Comment #208: Spent sealed sources

The use of artificial radionuclides is authorized by a ministerial committee (CIREA). The user must send the sources to the supplier after 10 years. The supplier must send the returned sources to the manufacturer of the artificial radionuclides. Financial provisions exist to guarantee the effective return of the sources. The French manufacturers are very few and have facilities to store the returned sources.

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Comment #168: Spent fuel

See Article 8-II of Planning Act No. 2006-739 Article L. 542-2-1 and 2

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

Comment #169: liquid HLW storage

“Practically, all fission products have today be vitrified” as mentioned in the Second national report (§ H.2.2.3) - Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

Comment #170: funds aside

Financial provisions have been annually made by most of the nuclear plants operators for future waste management and dismantling of the existing plants. The corresponding funds made up to now are important.The Parliamentary Office for Evaluation of Scientific and Technological Options has considered that the expenses for dismantling, estimated by the operators, and provisions made annually do not need to be revised now (report 1359 of the Assemblée National dated February 1999).
The 2006 Planning Act addresses the issue of secured financial provisions to be constituted by operators. Parliament will also participate in the control of those financial provisions as dedicated assets in the companies’ accounts

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Comment #238: time scale

Second national report (§ F.6.1) - Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

“The regulations do not stipulate dismantling as soon as is reasonably feasible. However, the operator is asked to justify that the strategy proposed is the best one in terms of safety and radiation protection.
The ASN is in favour of immediate dismantling for various reasons such as loss of familiarity with the design and operation of the installation, the minimal advantage gained from radioactive decay, or the risk of equipment obsolescence. All operators in charge of a dismantling operation currently apply this policy.
The experience accumulated with the initial dismantling operations, mainly on small installations (pilot facilities, research reactors) led in 1990 to clarification of the regulatory framework governing the end of a Basic Nuclear Installation's life. The current texts require the operator to give thought to the future of its installation and then to the organisation of the steps involved in final shutdown and dismantling. The aim is to ensure that the safety status of the installation is satisfactory at all times, even after operations have ceased, taking account of the specific nature of dismantling.”

Country Waste Profile Report for

Germany

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-03-31 17:00:45

Waste Class Matrix(ces) Used/Defined

Country: Germany, Federal Republic of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: GER

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
NHGW	90	10	0
HGW	0	0	100

Description: NHGW = negligible heat generating waste
HGW = heat-generating waste
The percentages in the matrix are based upon waste characteristics including radionuclide inventory and estimated annual arisings provided by the waste generators (Internal BfS-report ET-IB-52). The characteristics were compared with the limits for long lived nuclides and heat generation specified for the IAEA's waste classification scheme.

Comment #255: waste-classification

According to repository-relevant aspects all radioactive waste produced is basically classified in waste with negligible heat generation (NHGW) and heat-generating waste (HGW). NHGW is defined in the "guideline concerning the controlling of radioactive waste with negligible heat generation that do not have to be delivered to a federal state collecting depot" [1] as waste to be disposed of in the planned Konrad repository. I.e. the radionuclide inventory of NHGW is limited by the Konrad waste acceptance requirements [2]. Radioactive waste exceeding these limits (i.e. spent fuel and radioactive waste from reprocessing of spent fuel) is considered HGW.

[1] "Bekanntmachung der Richtlinie zur Kontrolle radioaktiver Abfälle mit vernachlässigbarer Wärmeentwicklung, die nicht an eine Landessammelstelle abgeliefert werden vom 16. Januar 1989", Bundesanzeiger 41 (1989) no. 63a, p. 1-12

[2] P. Brennecke, "Anforderungen an endzulagernde radioaktive Abfälle (Endlagerungsbedingungen, Stand: Dezember 1995) - Schachtanlage Konrad -", Interner BfS-Bericht ET-IB-79, Bundesamt für Strahlenschutz, Salzgitter (1995)

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X	X		
processed			X	X

Comment #12227: Definitions for Unprocessed Waste and Processed W

Germany usually uses the term "conditioned " for waste that needs no more physical or chemical treatment for disposal.

Groups Overview

Country: Germany, Federal Republic of

Reporting Year: 2006

Reporting Group: **Disposal**

Inventory Reporting Date: December 2006

Waste Matrix Used: GER

Description:

Site Name	Facility Name	Facilities Defined		
Gorleben	Gorleben		storage	disposal
Konrad	Konrad			disposal
Morsleben	ERAM			disposal

Reporting Group: **Industrial**

Inventory Reporting Date: December 2006

Waste Matrix Used: GER

Description:

Site Name	Facility Name	Facilities Defined		
GNS-DUI	GNS-DU	processing		
Hanau	Nukem		storage	
	Siemens		storage	
Others	Industry		storage	
Sum	Sum data		storage	

Reporting Group: **LSSt**

Inventory Reporting Date: December 2006

Waste Matrix Used: GER

Description:

Site Name	Facility Name	Facilities Defined		
lsst	GRB		storage	
	LSSt		storage	
Sum	Sum data		storage	

Reporting Group: **NPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: GER

Description:

Site Name	Facility Name	Facilities Defined		
Greifswald	ZLN	processing		
	ZLN		storage	
KKU	KKU		storage	
NPPs	NPP		storage	
Sum	Sum data		storage	

Groups Overview

Country: Germany, Federal Republic of Reporting Year: 2006

Reporting Group: **Other**

Inventory Reporting Date: December 2006

Waste Matrix Used: GER

Description:

Site Name	Facility Name	Facilities Defined		
Other	Other		storage	

Reporting Group: **Research**

Inventory Reporting Date: December 2006

Waste Matrix Used: GER

Description:

Site Name	Facility Name	Facilities Defined		
FZJ	FZJ	processing		
	FZJ		storage	
FZK	FZK	processing		
	FZK		storage	
Other	Research		storage	
Rossendorf	VKTA		storage	
Sum	Sum Data		storage	

Reporting Group Disposal, Site Structure: Gorleben

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: Gorleben

Location: Gorlebe, loxer saxony

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Gorleben

Description	Storage facility for NHGW (ALG) and HGW (TBLG) in Gorleben Disposal facility: Gorleben salt dome; since 2000 interruption of investigations for 3 to 10 years

Storage part of the "Gorleben" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	Yes	HGW	Yes	Yes
SRS	No	No			
List SRS?	No				

Capacity	Up to a total activity of 5E+18 Bq (ALG) and 2E+20 Bq (TBLG)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALG	building	1984	No	No	No	No
TBLG	building	1995	No	No	No	No

Disposal part of the "Gorleben" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	No	Yes	HGW	No	Yes
Disused/spent, sealed radioactive sources (SRS).				No	Yes
List SRS	No				

Type	geological (cavern)		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	400000
Depth (m)	900		
Host medium	salt dome		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1979	2000
site selection		1977	1977

Reporting Group Disposal, Site Data: Gorleben

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: Gorleben

Inventory Reporting Date: December 2006 Waste Matrix: GER

Reporting Group Disposal, Site Structure: Konrad

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location: Salzgitter

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Konrad

Description	Repository for NHGW Konrad

Reporting Group Disposal, Site Structure: Morsleben

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: ERAM

Location: Morsleben

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: ERAM

Description	Repository for radioactive waste Morsleben

Disposal part of the "ERAM" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	No	HGW	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	geological (cavern)		
Facility is non modular			
Capacity - existing (m3)	55000	Capacity -planned (m3)	55000
Depth (m)	500		
Host medium	salt dome		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1967	1970
site selection		1967	1970
design		1970	1983
construction		1970	1983
commissioning		1970	1986
operation		1971	1998
closure	Yes	2010	2022

Reporting Group Disposal, Site Data: Morsleben

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: ERAM

Inventory Reporting Date: December 2006 Waste Matrix: GER

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NHGW	Disposal	Yes	36753	81.44	0.43	0	18.13	0	0	0	No

Reporting Group Industrial, Site Structure: GNS-DUI

Country: Germany, Federal Republic of

Reporting Year: 2006

Full Name: GNS Duisburg

Location: Duisburg

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: GNS-DU

Description	GNS processing facility for radioactive waste in Duisburg

Reporting Group Industrial, Site Structure: Hanau

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location: Hanau

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Nukem

Description	Nukem storage facility in Hanau

Facility: Siemens

Description	Storage facility for radioactive waste from the Siemens-MOX plant in Hanau

Reporting Group Industrial, Site Structure: Others

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Industry

Description	Nuclear Industry

Reporting Group Industrial, Site Structure: Sum

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: All industrie

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Sum data

Description	This is artifitial facility just to report summary data for the group.

Storage part of the "Sum data" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	No	HGW	Yes	No
SRS	No	No			
List SRS?	No				
Capacity	not defined				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
dummy	building	1990	No	No	No	No

Reporting Group Industrial, Site Data: Sum

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: All industrie

Inventory Reporting Date: December 2006 Waste Matrix: GER

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NHGW	Storage	No	3418	0	100	0	0	0	0	0	No
NHGW	Storage	Yes	6433	0	100	0	0	0	0	0	No

Waste Class	Status
HGW (in Storage)	Waste data available, will not be reported.

Reporting Group LSSt, Site Structure: lsst

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location:

License
Holder(s) :

Comment #324: Processing Facilities

In addition to the stationary waste processing facilities there are several mobile waste processing facilities available which can be transported and operated at the waste generator's site.

Comment #325: Operating Life of Storage Facilities

Radioactive waste has to be stored until a final repository is available. The intended start of operation of a German repository for radioactive waste is aproximately in the year 2030. The estimated Operating Life of the storage facilities is the time from facility construction to 2030.

Comment #326: LSSt

The Federal States Collecting Depots combined in this group are:
Landessammelstelle Baden-Württemberg,
Landessammelstelle Bayern,
Landessammelstelle Berlin,
Landessammelstelle Hessen,
Landessammelstelle Niedersachsen,
Landessammelstelle Nordrhein-Westfalen,
Landessammelstelle Rheinland-Pfalz,
Landessammelstelle Saarland,
Landessammelstelle Sachsen,
Landessammelstelle Schleswig-Holstein,
Vorläufige Verwahrstelle Brandenburg

Comment #327: Industry

The Nuclear Industry combined in this group are:
Advanced Nuclear Fuels GmbH,
Siemens AG - Unternehmensbereich Kraftwerk Union,
Urenco GmbH Gronau,
Urenco GmbH Jülich.

Nukem and Siemens Brennelementewerk Hanau/MOX are listet as separate facilities.

Comment #328: NPP

The Nuclear Power Plants combined in this group are:
Kernkraftwerk Biblis A und B,
Kernkraftwerk Brokdorf,
Kernkraftwerk Brunsbüttel,
Kernkraftwerk Emsland,
Kernkraftwerk Grafenrheinfeld,
Kernkraftwerk Grohnde,
Kernkraftwerk Gundremmingen Blöcke B und C,
Kernkraftwerk Isar 1,
Kernkraftwerk Isar 2,
Kernkraftwerk Krümmel,
Kernkraftwerk Mülheim-Kärlich,
Kernkraftwerk Neckarwestheim Blöcke 1 und 2,
Kernkraftwerk Obrigheim,
Kernkraftwerk Philippsburg Blöcke 1 und 2,
Kernkraftwerk Stade,
Kernkraftwerk Unterweser,
Kernkraftwerk Greifswald,
Kernkraftwerk Gundremmingen Block A,
Kernkraftwerk Hamm-Uentrop,
Kernkraftwerk Jülich,
Kernkraftwerk Lingen,
Kernkraftwerk Rheinsberg,
Kernkraftwerk Würgassen,
Kernkraftwerk-Betriebsgesellschaft KNK,
Kernkraftwerk-Betriebsgesellschaft MZFR,
Versuchsatomkraftwerk Kahl VAK

Comment #329: Research

The Research Institutes combined in this group are:
Europäisches Institut für Transurane,
Forschungs-und Meßreaktor Braunschweig,
Forschungsreaktor Garching,
Forschungszentrum Geesthacht GmbH,
Hahn-Meitner-Institut Berlin GmbH,
Institut für Radiochemie.

Forschungszentrum Jülich GmbH,
Forschungszentrum Karlsruhe GmbH and
VKT Rossendorf are listet as separate facilities.

Comment #330: Other

Waste Generators combined in this group are:
Bundeswehr,
AEAT Lehse

Comment #331: HGW

Only liquid High Active Concentrate (as "unprocessed") and vitrified High Active Concentrate (as "processed") is included. Spent fuel and core scrap from light-water-reactors is not included.

Comment #332: Reprocessing abroad

Spent fuel from German NPPs was/is shipped to France and Great Britain for reprocessing. The waste products will be reported when they are returned to Germany.

Comment #333: Decommissioning waste

Decommissioning waste is reported together with operational waste of the respective origin

The following list the waste management facilities that are located at this site.

Facility: GRB

Reporting Group LSSt, Site Structure: lsst

Country: Germany, Federal Republic of Reporting Year: 2006

Description	Storage facility in Mitterteich

Storage part of the "GRB" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	Yes	HGW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	40000 containers (200l and 400l drums and cast iron containers)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
EVU	building	1987	No	No	No	No

Facility: LSSt

Description	Federal States Collecting Depots

Storage part of the "LSSt" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	Yes	HGW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LSSt	building	0	No	No	No	No

Comment #7561: year opened information

Group of storage facilities, differing years of opening

Reporting Group LSSt, Site Data: lsst

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: GER

Reporting Group LSSt, Site Structure: Sum

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: All State collecting depots

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Sum data

Description	

Storage part of the "Sum data" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	No	HGW	Yes	No
SRS	No	No			

List SRS?	No
Capacity	not defined

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Dummy	building	1990	No	No	No	No

Reporting Group LSSt, Site Data: Sum

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: All State collecting depots

Inventory Reporting Date: December 2006 Waste Matrix: GER

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NHGW	Storage	No	2459	0	0	0	100	0	0	0	No
NHGW	Storage	Yes	3343	0	0	0	100	0	0	0	No
HGW	Storage	Yes	19	0	0	0	100	0	0	0	No

Reporting Group NPP, Site Structure: Greifswald

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: ZLN

Description	Processing facility for radioactice waste in the storage facility north (ZLN)

Facility: ZLN

Description	Storage facility north in Greifswald for radioactive waste from the NPPs Greifswald and Rheinsberg

Reporting Group NPP, Site Structure: KKU

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: Unterweser

Location: Stade

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: KKU

Description	Storage facility for NHGW from the NPPs Stade and Unterweser

Reporting Group NPP, Site Structure: NPPs

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: storage at single NPPs

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	Storage at Nuclear Power Plants

Reporting Group NPP, Site Structure: Sum

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Sum data

Description	

Storage part of the "Sum data" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	No	HGW	Yes	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Dummy	building	1990	No	No	No	No

Reporting Group NPP, Site Data: Sum

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: GER

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NHGW	Storage	No	12877	52.3	0	0	0	0	47.7	0	No
NHGW	Storage	Yes	25717	58.4	0	0	0	0	41.6	0	No
HGW	Storage	Yes	379	1	0	99	0	0	0	0	No

Reporting Group Other, Site Structure: Other

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Other

Description	Other waste generators

Storage part of the "Other" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	Yes	HGW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Dummy	building	1990	No	No	No	No

Reporting Group Other, Site Data: Other

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: GER

Waste Inventory

Waste Class	Status
NHGW (in Storage)	Waste data available, will not be reported.

Reporting Group Research, Site Structure: FZJ

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: Forschungszentrum Juelich

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: FZJ

Description	Research Center Juelich

Facility: FZJ

Description	Storage facility in the research center Juelich

Reporting Group Research, Site Structure: FZK

Country: Germany, Federal Republic of

Reporting Year: 2006

Full Name: Forschungszentrum Karlsruhe

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: FZK

Description	Research Center Karlsruhe

Facility: FZK

Description	Storage facility in the research center Karlsruhe

Reporting Group Research, Site Structure: Other

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Research

Description	Storage at Research Instituts

Reporting Group Research, Site Structure: Rossendorf

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name: Forschungszenrum Rossendorf

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: VKTA

Description	Storage facility in the research center Rossendorf

Reporting Group Research, Site Structure: Sum

Country: Germany, Federal Republic of — Reporting Year: 2006

Full Name:

Location:

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: Sum Data

Description	

Storage part of the "Sum Data" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NHGW	Yes	No	HGW	Yes	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Dummy	building	1990	No	No	No	No

Reporting Group Research, Site Data: Sum

Country: Germany, Federal Republic of Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: GER

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NHGW	Storage	No	10377	0	0	0	100	0	0	0	No
NHGW	Storage	Yes	39190	0	0	0	100	0	0	0	No
HGW	Storage	No	56	5	0	95	0	0	0	0	No
HGW	Storage	Yes	146	0	38	0	62	0	0	0	No

REGULATORS

Country: Germany, Federal Republic of Reporting Year: 2006

Name	BMU
Full Name	Federal Minister for the Environment, Nature Conservation and Nuclear Safety (Bundesministerium fuer Umwelt, Naturschutz und Reaktorsicherheit - BMU)
Division	Department RS, Safety of Nuclear Installations, Radiological Protection, Nuclear Fuel Cycle and Waste Management
City or Town	D-53048 Bonn

REGULATIONS / LAWS

Country: Germany, Federal Republic of Reporting Year: 2006

Name	ATG	
Title or Name	Atomic Energy Act (Atomgesetz)	
Reference Number		
Date Promulgated or Proclaimed	1959-12-23	Law

Name	StrlSchV	
Title or Name	Radiation Protection Ordinance (Strahlenschutzverordnung)	
Reference Number		
Date Promulgated or Proclaimed	2001-07-20	Regulation

Name	UVPG	
Title or Name	Act on the Assessment of Environmental Impact (Gesetz über die Umweltverträglichkeitsprüfung)	
Reference Number		
Date Promulgated or Proclaimed	1990-02-12	Law

Name	BBergG	
Title or Name	Federal Mining Act (Bundesberggesetz)	
Reference Number		
Date Promulgated or Proclaimed	1980-08-13	Law

Name	StrVG	
Title or Name	Act on the Precautionary Protection of the Population against Radiation Exposure (Strahlenschutzvorsorgegesetz)	
Reference Number		
Date Promulgated or Proclaimed	1986-12-19	Law

Policies

Country: Germany, Federal Republic of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Requirements (Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

Responsibilities (Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	

24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All

Policies

Country: Germany, Federal Republic of **Disposal Facilities** Reporting Year: 2006

42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Comment #334: Active Institutional Control

Germany does not plan to have an active institutional control period for its disposal facilities.

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	Yes

Policies

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
110	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	No
74	**Are there regional-level registries (one or more)?**	Yes
75	If the answer was yes, are any registries used only for disused/spent SRS?	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

Comment #321: Regulations for spent SRS

There are no special regulations for spent/disused SRS in Germany. Once SRSs are declared spent/disused, they are treated as radioactive waste.

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes

89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Comment #322: Free Release of SRS

There are no special regulations for free release of spent/disused SRSs in Germany. The regulations for free release of radioactive material are in force.

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	Yes

	Processing	(Yes - All;Yes - Some;No)
94	If your Country has high-level liquid wastes in storage, are there documented plans in place to process these liquids?	Yes - All

	Timeframe	(Yes - All;Yes - Some;No)
95	If your Country has high-level liquid wastes in storage, are there plans to have this waste be processed within a specified time frame?	Yes - All
96	If the answer to the previous question is Yes, what year is this processing planned to be completed (format = YYYY)	2005

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

Policies

Country: Germany, Federal Republic of **Decommissioning** Reporting Year: 2006

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - All
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - All

Country Waste Profile Report for

Greece

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-03-10 09:35:36

Waste Class Matrix(ces) Used/Defined

Country: Greece (Hellenic Republic) Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #87: New Comment

We accept the IAEA Waste Matrix.

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Greece (Hellenic Republic) Reporting Year: 2006

Reporting Group: **GAEC**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: The Greek Atomic Energy Commission (GAEC) is the National competent authority for radiation protection. It was first established in 1958 as the authority responsible for planning,application and supervision of radiation protection measures,and as the competent authority for nuclear energy & technology and radiation protection. GAEC has highly qualified scientific and technical staff and adequate infrastructure.

Site Name	Facility Name	Facilities Defined		
NRCPS	NRCPS		storage	

Reporting Group GAEC, Site Structure: NRCPS

Country: Greece (Hellenic Republic) Reporting Year: 2006

Full Name: National Research Centre for Physical Sciences

License Holder(s) : NRCPS does have a lisence, issued by GAEC, for the short-term storage of radioactive waste

The following list the waste management facilities that are located at this site.

Facility: NRCPS

Description	Research centre. NRCPS operates GRR--1,since 1961.GRR-1 is a 5MW open-pool, light water moderated and cooled reactor. NRCPS operates an interim storage facility for SRS and some other liquid waste (from NRCPS labs) of very low radioactivity.

Storage part of the "NRCPS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	No			
List SRS?	No				
Capacity	Sufficient capacity for more than 30 years. SRS are are temporally stored (not more than 4-5 years)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	building	2003	No	No	Yes	Yes

REGULATORS

Country: Greece (Hellenic Republic) Reporting Year: 2006

Name	GAEC
Full Name	Greek Atomic Energy Commission
Division	Licensing & Inspections
City or Town	Athens, Attiki

REGULATIONS / LAWS

Country: Greece (Hellenic Republic) Reporting Year: 2006

Name	NPT	
Title or Name	Decree Law No 437, Official Gazette 49/A/26-02-1970, "Ratification of the Non Proliferation Treaty Signed on the 1 July 1968 "	
Reference Number	Decree Law No 437. Of.Gaz 49/A/26-02-1970	
Date Promulgated or Proclaimed	1970-02-19	Law

Name	PPNM	
Title or Name	Law No 1636, Official Gazette No 106/A/18-07-1986, "Ratification of the Physical Protection of Nuclear Material Treaty"	
Reference Number	Law No 1636, Of.Gaz.No 106/A/18-07-1986	
Date Promulgated or Proclaimed	1986-07-18	Law

Name	TPLNE	
Title or Name	Law No 1758, Official Gazette No 44/A/10-03-1988, "Ratification of the Protocol Amending the Convention on Third Party Liability on the field of Nuclear Energy of 29 July 1960, as it was modified by the Additional Protocol of the 28 January 1964"	
Reference Number	Law No 1758, Of.Gaz.No 44/A/10-03-1988	
Date Promulgated or Proclaimed	1988-03-10	Law

Name	ICCNA	
Title or Name	Law No 1937, Official Gazette No 35/A/13-03-1991, "Ratification of the International Convention in Case of a Nuclear Accident or Radiological Emergencies"	
Reference Number	Law No 1937, Of.Gaz. No 35/A/13-03-1991	
Date Promulgated or Proclaimed	1991-03-13	Law

Name	ITENNA	
Title or Name	Law No 1938, Official Gazette No 36/A/13-03-1991, "Ratification of the International Treaty on Early Notification in Case of a Nuclear Accident"	
Reference Number	Law No 1938, Of.Gaz.No 36/A/13-03-1991	
Date Promulgated or Proclaimed	1991-03-13	Law

REGULATIONS / LAWS

Country: Greece (Hellenic Republic) Reporting Year: 2006

Name	Trans1	
Title or Name	Ministerial Order No 5408 /E3/2362/ F. NSG, Official Gazette No 730/B/21-09-1993, "Control on Transfer of Nuclear Materials, Armament and Technologies Affecting National Defense and Security"	
Reference Number	Min.Order No 5408/E3/2362/Gaz.No 730/B	
Date Promulgated or Proclaimed	1993-09-21	Law

Name	Info1	
Title or Name	Ministerial Order No 2739, Official Gazette No 165/B/15-03-1994, "Regulation on Informing the General Public about Health Protection Measures to be Applied and Steps to be Taken in the Event of a Radiological Emergency"	
Reference Number	Min.Order No 2739,Gaz.No 165/B/15	
Date Promulgated or Proclaimed	1994-03-15	Law

Name	CivPro	
Title or Name	Organization of Civil Protection, Ministerial Order No 2344, Official Gazette No 212/A/11-10-1995.	
Reference Number	Min.Order No 2344,Gaz.No 212/A	
Date Promulgated or Proclaimed	1995-10-11	Law

Name	ExtWrk	
Title or Name	Ministerial Order No 9087, Official Gazette No 849/13-09-1996, "Radiation protection of External Workers".	
Reference Number	Min.Order No 9087, Gaz.No 849	
Date Promulgated or Proclaimed	1996-09-13	Law

Name	Trans2	
Title or Name	Presidential Decree No 22, Official Gazette No 20/A/26-02-1997, "Supervision and Control of Shipments of Radioactive Waste between Greece and the other Member States of the E.U. and Into and Out of the E.U."	
Reference Number	Pres.Decree No 22,Gaz.No 20/A	
Date Promulgated or Proclaimed	1997-02-26	Law

REGULATIONS / LAWS

Country: Greece (Hellenic Republic) Reporting Year: 2006

Name	NSC	
Title or Name	Law No 2480, Official Gazette No 70/A/14-03-1997, "Ratification of the Nuclear Safety Convention"	
Reference Number	Law No 2480, Gaz.No 70/A	
Date Promulgated or Proclaimed	1997-03-14	Law

Name	AddProt	
Title or Name	Law No 2805, Official Gazette 50/A/3-3-2000, "Ratification of the Additional Protocol."	
Reference Number	Law No 2805, Gaz.50/A	
Date Promulgated or Proclaimed	2000-03-03	Law

Name	RadPro	
Title or Name	Joint Ministerial Order 1014 (FOR) 94, Official Gazette No 216/B/6-03-2001, "Radiation Protection Regulations"	
Reference Number	Joint Min.Order 1014 (FOR) 94, Gaz.No 216/B	
Date Promulgated or Proclaimed	2001-03-06	Law

Name	GAEC1	
Title or Name	Decree Law No 1733 (Article 28), Official Gazette No 171/A/22-09-1987, "Establishing the Greek Atomic Energy Commission"	
Reference Number	Decree Law No 1733 (Art28),Gaz.No 171/A	
Date Promulgated or Proclaimed	1987-09-22	Law

Name	GAEC2	
Title or Name	Presidential Decree No 404, Official Gazette of the Hellenic Republic No 173, 05.10.93, "Organization of the Greek Atomic Energy Commission".	
Reference Number	Pres.Decree No 404,Gaz.No 173	
Date Promulgated or Proclaimed	1993-10-05	Law

REGULATIONS / LAWS

Country: Greece (Hellenic Republic) Reporting Year: 2006

Name	HASS	
Title or Name	Control of High Activity Sealed Sources and Orphan Sources	
Reference Number	Join Min Order 10828/EFA(1897),Gaz No 859	
Date Promulgated or Proclaimed	2006-07-10	Law

Policies

Country: Greece (Hellenic Republic) | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete

Waste Generator and Operators of Waste Management Facilities Responsibility

24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Partially
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Partially

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - Some
41	Environmental Impact Statement (EIS)	Yes - Some
42	Performance Assessment (PA)	Yes - Some
43	Quality Assurance (QA)	Yes - Some
44	Safety Assessment (SA)	Yes - Some

46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	No

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	Yes
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Hungary

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-08 11:38:36

Waste Class Matrix(ces) Used/Defined

Country: Hungary, Republic of | Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: PNPP

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Solid_LL	100	0	0
Solid_HL	20	70	10
Liquid_EC	90	10	0
Liquid_RE	40	60	0
Liquid_O	95	5	0

Description: Solid_LL: solid, low level
Solid_HL: solid, high level
Liquid_EC: liquid, evaporator concentrate
Liquid_RE: liquid, resin
Liquid_O: other liquid

Waste Class Matrix: PURAM

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
LILW-SL	100	0	0
LILW-LL	0	100	0
HLW	0	0	100

Description: The Hungarian radioactive waste categorization laid down in the Decree of the Minister of Health, Social and Family Affairs 47/2003 (VIII.8.) (see: general info /regulations) identical to the Agency's categorization sheme. In the context of waste storage & disposal this categorization is used.

Attachment #1370: a chapter of the 2nd National Report prepared in 2005 for the Joint Convention review meeting last year describing the PURAM waste class matrix.

File name: comment_wasteclass.pdf

File type: PDF Document

Attachment #1371: An unofficial English translation of the Decree of the Minister of Health, Social and Family Affairs 47/2003 describing the classification of radioactive waste in Hungary. (See Appendix 2 of the decree.)

File name: 47_2003ESZCSM.pdf

File type: PDF Document

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Hungary, Republic of Reporting Year: 2006

Reporting Group: **PNPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: PNPP

Description: Paks Nuclear Power Plant operational radioactive waste stored on-site

Site Name	Facility Name	Facilities Defined		
Paks	Compaction	processing		
	Evaporat.	processing		
	PaksStore		storage	

Reporting Group: **PURAM**

Inventory Reporting Date: December 2006

Waste Matrix Used: PURAM

Description: Public Agency for Radioactive Waste Management

Site Name	Facility Name	Facilities Defined		
Bátaapáti	DISPOSAL			disposal
Püspökszil	STORAGE	processing	storage	
	VAULTS	processing		disposal
	SSRS			disposal

Reporting Group PNPP, Site Structure: Paks

Country: Hungary, Republic of Reporting Year: 2006

Full Name: Paks Nuclear Pover Plant

Location: Paks

License Holder(s) : Paks Nuclear Power Plant Ltd.

The following list the waste management facilities that are located at this site.

Facility: Compaction

Description	solid waste compression

Processing part of the "Compaction" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid_LL	Yes	Yes	Solid_HL	No	No
Liquid_EC	No	No	Liquid_RE	No	No
Liquid_O	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1988

Facility: Evaporat.

Description	Liquid waste evaporation

Processing part of the "Evaporat." facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid_LL	No	No	Solid_HL	No	No
Liquid_EC	Yes	Yes	Liquid_RE	No	No
Liquid_O	Yes	Yes			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1985

Facility: PaksStore

Description	Storage for operational waste

Storage part of the "PaksStore" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Solid_LL	Yes	Yes	Solid_HL	Yes	Yes
Liquid_EC	Yes	Yes	Liquid_RE	Yes	Yes
Liquid_O	Yes	Yes			
SRS	No	No			

List SRS?	No
Capacity	1500 m3 for solid_LL 11100 m3 for liquid 220 m3 for solid_HL

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SOLID_LL	building	1982	No	No	No	No
LIQUID	tank (other)	1982	No	No	No	No
SOLID_HL	well	1982	No	No	No	No

Reporting Group PNPP, Site Data: Paks

Country: Hungary, Republic of Reporting Year: 2006

Full Name: Paks Nuclear Pover Plant

Inventory Reporting Date: December 2006 Waste Matrix: PNPP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Solid_LL	Storage	No	504	100	0	0	0	0	0	0	No
Solid_LL	Storage	Yes	1007	100	0	0	0	0	0	0	No
Comment #6598: The additional characteristics of the waste Unprocessed: flammable, liquid (aqueous), resin, sludge, solid (non-dispersible) Processed: flammable, liquid (aqueous), resin, sludge, solid (non-dispersible)											
Solid_HL	Storage	No	76.4	100	0	0	0	0	0	0	No
Comment #6599: The additional characteristics of the waste Unprocessed: flammable, liquid (aqueous), resin, sludge, solid (non-dispersible) Processed: flammable, liquid (aqueous), resin, sludge, solid (non-dispersible)											
Liquid_EC	Storage	Yes	5181	100	0	0	0	0	0	0	No
Comment #6600: The additional characteristics of the waste Unprocessed: flammable, liquid (aqueous), resin, sludge, solid (non-dispersible) Processed: flammable, liquid (aqueous), resin, sludge, solid (non-dispersible)											
Liquid_RE	Storage	No	136	100	0	0	0	0	0	0	No
Liquid_O	Storage	No	1158	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Evaporation			same	
Ion Exchange			same	
Wastewater Treatment		Yes		

Reporting Group PURAM, Site Structure: Bátaapáti

Country: Hungary, Republic of Reporting Year: 2006

Full Name: National Radioactive Waste Repository

Location: Bátaapáti

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: DISPOSAL

Description	solid (or solidified) LILW-SL andLILW-LL waste disposal with NPP origin

Disposal part of the "DISPOSAL" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	Yes
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	40000
Depth (m)	250-300		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1993	1996
site selection		1996	2005
design		1996	
construction		2006	

Reporting Group PURAM, Site Structure: Püspökszil

Country: Hungary, Republic of Reporting Year: 2006

Full Name: Radioactive Waste Treatment and Disposal Facility

Location: Püspökszilágy

License Holder(s) : Public Agency for Radioactive Waste Management

Comment #339: Percentage of Capacity Used

The percentage of disposal facility capacity used takes in to consideration the volume of waste plus losses due to voids, buffer and backfill materials

The following list the waste management facilities that are located at this site.

Facility: STORAGE

Description	storage for long lived radioactive waste

Processing part of the "STORAGE" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	2006

Storage part of the "STORAGE" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	Yes			
List SRS?	No				
Capacity	200 m3 for solid waste 2.75 m3 for SRS				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Store	building	2005	No	No	No	No
Well	well	2005	No	No	No	No

Reporting Group PURAM, Site Structure: Püspökszil

Country: Hungary, Republic of Reporting Year: 2006

Facility: VAULTS

Description	concrete disposal vaults

Processing part of the "VAULTS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1977

Disposal part of the "VAULTS" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	5040	Capacity -planned (m3)	5040
Depth (m)	6		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
site selection		1974	1974
design		1974	1974
construction		1974	1976
commissioning		1976	1977
operation		1977	
Additional Activities and Events			
ACTIVITY: upgrading		2001	

Reporting Group PURAM, Site Structure: Püspökszil

Country: Hungary, Republic of Reporting Year: 2006

Facility: SSRS

Description	SRS steel lined disposal wells (see comment 7620)

Disposal part of the "SSRS" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	Yes				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	2	Capacity -planned (m3)	2
Depth (m)	6		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
site selection		1974	1974
design		1974	1974
construction		1974	1976
commissioning		1976	1977
operation		1977	

Comment #7620: facility capacity

The capacity (existing and planned) is 1.6 m3. The respository consists of an array of boreholes lined with stainless steel with an approximate diameter of 10-20 cm and 6 m deep.

The NEWMDB has a limitation that only integer values can be entered for capacity, therefore the value shown for the facility was rounded by the database to 2 m3

Reporting Group PURAM, Site Data: Püspökszil

Country: Hungary, Republic of Reporting Year: 2006

Full Name: Radioactive Waste Treatment and Disposal Facility

Inventory Reporting Date: December 2006 Waste Matrix: PURAM

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	No	1330	20	0	0	20	2	8	50	No
LILW-SL	Disposal	Yes	685	80	0	0	0	0	0	20	No
LILW-LL	Storage	No	12.6	0	0	0	20	0	0	80	No
LILW-LL	Disposal	No	1996	20	0	0	20	2	8	50	No
LILW-LL	Disposal	Yes	1029	80	0	0	0	0	0	20	No

Waste Class	Status
LILW-SL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization				Yes
Cementation			increase	
Encapsulation			same	

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Cs-137	2809	267		No	Yes	0	1.45E+04	
	9.97E+02	1.35E+04						
Sr-90	1274	64		Yes	No	0	2.95E+04	
	2.48E+02	2.93E+04						
H-3	1637	609		Yes	Yes	0	1.40E+05	
	8.44E+02	1.39E+05						
Kr-85	7164	3		Yes	Yes	0	1.19E+02	
	1.04E+02	1.47E+01						
Co-60	6971	447		Yes	Yes	0	5.09E+05	
	5.12E+02	5.08E+05						
Pm-147	713			No	Yes	0	2.64E+01	
	2.64E+01							
Po-210 Neutron Gen.	531			No	Yes	0	5.05E-07	
	5.05E-07							
Tm-170	117			No	Yes	0	4.00E-11	
	4.00E-11							
Ir-192	4558	90		Yes	No	0	3.21E+03	
	1.26E+02	3.08E+03						

Reporting Group PURAM, Site Data: Püspökszil

Country: Hungary, Republic of Reporting Year: 2006

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Pu-238 Neutron Gen.	3	3	No	Yes	0	8.34E+02	
	1.03E+00	8.33E+02					
Ra-226 Neutron Gen.	29	12	No	Yes	0	1.53E+02	
	3.79E+01	1.15E+02					
Am-241 Neutron Gen.	54	66	No	Yes	0	1.19E+04	
	1.03E+02	1.18E+04					
Tc-99	3091		No	Yes	0	1.91E+02	
	1.91E+02						
Pu-239	520	1	No	Yes	0	1.23E+01	
	2.61E+00	9.68E+00					
C-14	152		Yes	No	0	1.02E+01	
	1.02E+01						
Ra-226	1669	2	Yes	No	0	4.32E+02	
	2.02E+02	2.30E+02					
Am-241	7056	63	No	Yes	0	1.89E+03	
	2.21E+02	1.67E+03					
Pu-238	74	1	No	Yes	0	1.16E+02	
	2.51E+01	9.09E+01					

REGULATORS

Country: Hungary, Republic of

Reporting Year: 2006

Name	NPHMOS
Full Name	National Public Health and Medical Officer Service
Division	
City or Town	Budapest

Name	HAEA
Full Name	Hungarian Atomic Energy Authority
Division	
City or Town	Budapest

REGULATIONS / LAWS

Country: Hungary, Republic of Reporting Year: 2006

Name	Atomic Law	
Title or Name	Act No. CXVI. of 1996 on Atomic Energy	
Reference Number	116/1996 tv.	
Date Promulgated or Proclaimed	1996-12-18	Law

Name	PURAM	
Title or Name	Governmental Decree No. 240/1997. (XII. 18.) Korm., on the establishment of the organisation designated for implementing disposing of radioactive waste disposal and spent fuel, as well as decommissioning of nuclear installations, and on the financial source of performing its tasksactivities.	
Reference Number	240/1997 korm.	
Date Promulgated or Proclaimed	1997-12-18	Regulation

Name	Exemption	
Title or Name	Governmental Decree No. 124/1997. (VII. 18.) Korm., on radioactive materials as well as equipment generating ionising radiation, exempted from the scope of the Atomic Energy Act No. CXVI of 1996.	
Reference Number	124/1997 korm.	
Date Promulgated or Proclaimed	1997-07-18	Regulation

Name	ActLevels	
Title or Name	Order of the Minister of Public Welfare No. 23/1997. (VII. 18.) NM defining the exemption levels (activity concentrations and activities cf. ICRP-60) of radionuclides.	
Reference Number	23/1997 NM	
Date Promulgated or Proclaimed	1997-07-18	Regulation

Name	RadProt	
Title or Name	Order of the Minister of Health No. 16/2000. (VI. 8.) EüM on the execution of certain provisions of the Act No. CXVI. of 1996 on Atomic Energy associated with radiation protection.	
Reference Number	16/2000 EüM	
Date Promulgated or Proclaimed	2000-06-08	Regulation

REGULATIONS / LAWS

Country: Hungary, Republic of — Reporting Year: 2006

Name	SiteSelect	
Title or Name	Order of the Minister of Industry, Trade and Tourism No. 62/1997(XI.26.) IKIM on the Geological and Mining Requirements for the Siting and Planning of Nuclear Facilities and Radioactive Waste Disposal Facilities.	
Reference Number	62/1997 IKIM	
Date Promulgated or Proclaimed	1997-11-26	Regulation

Name	NuclFund	
Title or Name	Order of the Minister of Justice No. 14/2005 (VII.25.) IM on the operation and administration of the Central Nuclear Financial Fund.	
Reference Number	14/2005 IM	
Date Promulgated or Proclaimed	2005-07-25	Regulation

Name	HAEA	
Title or Name	Government Decree 114/2003 (VII.29.) on the Scope of Duty, Authority and Jurisdiction of Imposing Penalty of the Hungarian Atomic Energy Authority, and on the Activities of the Atomic Energy Council	
Reference Number	114/2003 Korm.	
Date Promulgated or Proclaimed	2003-07-29	Regulation

Name	St&Disp	
Title or Name	Decree of the Minister of Health, Social and Family Affairs 47/2003 (VIII.8.) on some aspects of the interim storage and final disposal of radioactive waste and on the radiological aspects of radioactive materials arising from industrial activities and naturally occurring radioactive materials	
Reference Number	47/2003 ESzCsM	
Date Promulgated or Proclaimed	2003-08-08	Regulation

MILESTONES

Country: Hungary, Republic of — Reporting Year: 2006

Start Year or Reference Year:	1960	End Year	1960
Description of Milestone			
LILW: Start of operation of an interim storage in Solymár.			

Start Year or Reference Year:	1976	End Year	1976
Description of Milestone			
LILW: Licencing of the Radioactive Waste Treatment and Disposal Facility in Püspökszilágy for institutional waste.			

Start Year or Reference Year:	1986	End Year	1988
Description of Milestone			
LILW: A disposal site for NPP waste was investigated in Ófalu, but the licence for construction was not granted by the Hungarian authorities.			

Start Year or Reference Year:	1989	End Year	1993
Description of Milestone			
HLW: Preliminary geological investigation of the Boda claystone formation.			

Start Year or Reference Year:	1993	End Year	1996
Description of Milestone			
LILW: A National Program was launched to select a site for a repository for NPP waste (countrywide screening and regional screening for potential sites).			

Start Year or Reference Year:	1993	End Year	1999
Description of Milestone			
HLW: Geological exploration 1100 m below surface in an underground research object in the Boda claystone formation.			

Start Year or Reference Year:	1996	End Year	
Description of Milestone			
LILW: Decision to investigate the Bátaapáti (Üveghuta) site for a subsurface repository in granite, while keeping the Udvari site for a surface repository stand-by.			

Start Year or Reference Year:	1997	End Year	1998
Description of Milestone			
LILW: Exploration of the suitability of the potential site Bátaapáti (Üveghuta).			

Start Year or Reference Year:	1998	End Year	1999
Description of Milestone			
HLW: Country-wide screening for a potential site.			

Start Year or Reference Year:	1999	End Year	
Description of Milestone			
LILW: IAEA WATRP Mission confirms the results of the investigation and recommends further exploration of Bátaapáti (Üveghuta).			

Start Year or Reference Year:	2000	End Year	
Description of Milestone			
LILW: Collection of existing data and preparation of a preliminary safety assessment to establish further investigation in Bátaapáti (Üveghuta).			

Start Year or Reference Year:	2000	End Year	2001
Description of Milestone			
HLW: Elaboration of a national policy for HLW management, aiming at the establishment of a national strategy.			

MILESTONES

Country: Hungary, Republic of Reporting Year: 2006

Start Year or Reference Year:	2001	End Year	2003
Description of Milestone			
LILW: Detailed geological and hydrogeological survey from the surface as well as safety assessment of Bátaapáti (Üveghuta) site. The geological authority stated that the site fulfils all the requirements formulated in the relevant decree: thus, from the geological point of view it is suitable for the disposal of LILW.			

Start Year or Reference Year:	2002	End Year	2005
Description of Milestone			
LILW: Safety upgrading program (Phase I) for the Radioactive Waste Treatment and Disposal Facility in Püspökszilágy (based on previous safety assessments).			

Start Year or Reference Year:	2003	End Year	
Description of Milestone			
HLW: start of investigations to select a site of an underground laboratory in the Mecsek Mountains for the exploration of the Boda Claystone Formation.			

Start Year or Reference Year:	2004	End Year	2006
Description of Milestone			
LILW: The programme of further investigations of Bátaapáti (Üveghuta)site (construction of two paralel inclined shafts in order to determine the exact location of the repository and its safety zone) was approved by the competent minister in December 2004.			

Start Year or Reference Year:	2005	End Year	
Description of Milestone			
After the strongly supportive result of a local referendum held in the village of Bátaapáti, the Hungarian Parliament expressed its approval in principal for the construction of the repository			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
In parallel with on-going underground geological investigations in Bátaapáti the following additional activities started in 2006. a)Preliminary activities (landscaping, planning etc.) for aboveground infrastructures of the future LILW repository. b)Preparation of licensing documentations of the future LILW repository.			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
The modules 12-16 of the Spent Fuel Interim Storage Facility (II. phase of the enlargement of the SFISF) became practically accomplished in 2006. The final installation and the start of operation are the tasks of the year 2007.			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
The first part of the environmental licensing procedure was accomplished in January 2006 when the regionally competent authority accepted the Preliminary Environmental Impact Study giving green light to the second part of the procedure: the compilation of the Environmental Impact Assessment.			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
In 2006 the Governmental Decree 257/2006. (XII.15.) declared that the Bátaapáti LILW repository project is an issue of preferential importance and as such it enjoys certain priorities in licensing and legal procedures.			

MILESTONES

Country: Hungary, Republic of

Reporting Year: 2006

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
In 2006 new activities began in the framework of the second phase of the safety enhancement program (approved in December 2005) in the Radioactive Waste Treatment and Disposal Facility at Püspökszilágy. Plans were prepared and approved for opening 4 vaults (each of 470m3 containing mainly historical waste) and for retrieving, selection, reconditioning and repackaging waste.			

Policies

Country: Hungary, Republic of — Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Policies

Country: Hungary, Republic of **National Systems** Reporting Year: 2006

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	No
43	Quality Assurance (QA)	No
44	Safety Assessment (SA)	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	No
54	leachate treatment systems	No
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

Policies

Country: Hungary, Republic of | **Spent SRS** | Reporting Year: 2006

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	Yes
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	Yes

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	No

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)

Policies

Country: Hungary, Republic of | **Liquid HLW** | Reporting Year: 2006

93	Does your Country have high-level liquid wastes in storage?	Yes

	Processing	(Yes - All;Yes - Some;No)
94	If your Country has high-level liquid wastes in storage, are there documented plans in place to process these liquids?	No

	Timeframe	(Yes - All;Yes - Some;No)
95	If your Country has high-level liquid wastes in storage, are there plans to have this waste be processed within a specified time frame?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Indonesia

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 09:15:56

Waste Class Matrix(ces) Used/Defined

Country: Indonesia, Republic of

Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: National

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
LILW	100	0	0
Alpha Waste	0	100	0
HLW	0	0	100

Description: LILW means LILW-SL in IAEA definition. Alpha Waste for unsealed LILW-LL, and HLW for spent fuels.

Comment #182: Waste classification

Not declared clearly on:
(1) Batan, Regulation for safety of Radwaste Management, 1986
(2) Bapeten, Regulation for safety of Radwaste Management, No.3/V-99.
(3) Act. No.10/1997 on Nuclear Energy.

The definition adapted from above regulation and radwaste management practice in Indonesia. Formally, goverment regulation is important to state clearly the above waste classification.

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X	X		
processed			X	X

Groups Overview

Country: Indonesia, Republic of Reporting Year: 2006

Reporting Group: **Serpong**

Inventory Reporting Date: December 2006

Waste Matrix Used: National

Description: Reporting group located at Radioactive Waste Management Development Center, Serpong Research Establishment, BATAN

Site Name	Facility Name	Facilities Defined		
RWMDC	RCF	processing		
	RWI	processing		
	HAW-IS		storage	
	IS		storage	
	ENSF			disposal

Reporting Group Serpong, Site Structure: RWMDC

Country: Indonesia, Republic of Reporting Year: 2006

Full Name: Radioactive Waste Management Development Center, BATAN

License Holder(s) : Radioactive Waste Management Development Center, BATAN

The following list the waste management facilities that are located at this site.

Facility: RCF

Description	Radium Conditioning Facility (RCF) is facility for conditioning of Spent Radium Sources

Processing part of the "RCF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	No	No	Alpha Waste	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	2002

Facility: RWI

Description	Radioactive Waste Installation (RWI) is installation for processing radioactive waste such as, volume reduction and conditioning.

Processing part of the "RWI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	No	No	Alpha Waste	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1989

Reporting Group Serpong, Site Structure: RWMDC

Country: Indonesia, Republic of Reporting Year: 2006

Facility: HAW-IS

Description	Interim Storage for high active waste (HAW). The HAW mainly are fission products that generated from the Isotope Production Center. This facility is a place for delaying and reducing radiation exposure of the HAW for treatment

Storage part of the "HAW-IS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	Yes	Yes	Alpha Waste	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			

List SRS?	Yes
Capacity	Consists of 2 type of storages, pool and well storages. The pool type has 3 pools, each has a 3mx4mx3.6m dimension. The well storage has 20 wells and each well can contain 6 x 60 litres waste containers.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Pool	pool	1997	No	No	No	Yes
Well	well	1997	No	No	No	Yes

Facility: IS

Description	The IS facilitiy is for storing conditioned waste before disposal. There are 2 modules: IS-1 and IS-2.

Storage part of the "IS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	Yes	Yes	Alpha Waste	Yes	Yes
HLW	No	No			
SRS	Yes	No			

List SRS?	Yes
Capacity	Design capacity of each module is 1500 units of 200L drum and 500 units of 950L/350L shell.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
IS-1	building	1989	No	No	Yes	Yes
IS-2	building	2003	No	No	Yes	No

Reporting Group Serpong, Site Structure: RWMDC

Country: Indonesia, Republic of Reporting Year: 2006

Facility: ENSF

Description	Engineered Near Surface Disposal Facility

Disposal part of the "ENSF" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW	No	Yes	Alpha Waste	No	Yes
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	302
Depth (m)	6-7		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment	Yes	1995	2006
site selection	Yes	2007	2009
design	Yes	2010	2012
construction	Yes	2013	2015
commissioning	Yes	2015	2016
operation	Yes	2016	2026
closure	Yes	2027	2029
institutional control	Yes	2030	2130

Reporting Group Serpong, Site Data: RWMDC

Country: Indonesia, Republic of Reporting Year: 2006

Full Name: Radioactive Waste Management Development Center, BATAN

Inventory Reporting Date: December 2006 Waste Matrix: National

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW	Storage	Yes	189.02	58.67	0	0	41.33	0	0	0	Yes
Alpha Waste	Storage	Yes	47.6	0	0	0	7.15	0	92.85	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation	Yes			
Compaction			same	
Decontamination			same	
Evaporation			same	
Incineration			same	
Membrane Technology		Yes		

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Vitrification		Yes		

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Cm-244	2	2		No	Yes	4	3.92E+01	2006.12 (estimate)
	2.22E+00	3.70E+01						
Cd-109	1			Yes	No	5	1.85E-01	2003.12 (estimate)
	1.85E-01							
Fe-55	1			Yes	No	5	1.67E+00	2003.12 (estimate)
	1.67E+00							
Cf-252	6			Yes	No	4	2.65E+00	2006.12 (estimate)
	2.65E+00							
Sr-90	220			Yes	No	5	1.38E+02	2006.12 (estimate)
	1.38E+02							
Pm-147	7	2		No	Yes	5	3.28E+01	2006.12 (estimate)
	1.14E-01	3.27E+01						
Kr-85	12	18		Yes	No	5	2.04E+02	2006.12 (estimate)
	1.72E-09	2.04E+02						
Ir-192	28	1		Yes	No	5	2.81E+02	2005.12 (estimate)
	3.70E-02	2.81E+02						
Cs-137	140	76	3	Yes	Yes	2	1.73E+05	2006.12 (estimate)
	6.82E+01	3.06E+03	1.70E+05					
Co-60	5	94	4	Yes	No	1	1.14E+06	2006.12 (estimate)
	5.38E+00	8.05E+05	3.38E+05					

Reporting Group Serpong, Site Data: RWMDC

Country: Indonesia, Republic of Reporting Year: 2006

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226	895	7	Yes	No	3	1.16E+02	2006.12 (estimate)
	1.01E+02	1.49E+01					
Am-241	38	38	Yes	Yes	3	3.99E+03	2006.12 (estimate)
	7.86E+00	3.98E+03					

REGULATORS

Country: Indonesia, Republic of

Reporting Year: 2006

Name	NERA
Full Name	Nuclear Energy Regulatory Agency
Division	-
City or Town	Jakarta

REGULATIONS / LAWS

Country: Indonesia, Republic of Reporting Year: 2006

Name	Act	
Title or Name	Act on Nuclear Energy	
Reference Number	No.10 year 1997	
Date Promulgated or Proclaimed	1997-04-10	Law

Name	GR-1	
Title or Name	Goverment's Regulation on Radioactive Waste Management	
Reference Number	No. 27 year: 2002	
Date Promulgated or Proclaimed	2002-05-13	Regulation

Name	GR-2	
Title or Name	Goverment's Regulation for Safety for Transportation of Radioactive Substance	
Reference Number	No. 26 Year 2002	
Date Promulgated or Proclaimed	2002-05-13	Regulation

MILESTONES

Country: Indonesia, Republic of

Reporting Year: 2006

Start Year or Reference Year:	2003	End Year	2007
Description of Milestone			
National facility for non power reactor generated radwaste			

Policies

Country: Indonesia, Republic of Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
7	implemented controls over radioactive waste generation	Partially
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Policies

Country: Indonesia, Republic of **National Systems** Reporting Year: 2006

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - Some

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	Yes
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)

Policies

Country: Indonesia, Republic of **Spent SRS** Reporting Year: 2006

78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Comment #367: Export Spen Fuels

We have no regulation for restricting of spent fuels export. Until now we do re-export spent fuel from our research reactors to USA.

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

Policies

Country: Indonesia, Republic of **Decommissioning** Reporting Year: 2006

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some

Country Waste Profile Report for

Ireland

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 09:16:34

Waste Class Matrix(ces) Used/Defined

Country: Ireland Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #143: Disused source inventory

Ireland has no nuclear power reactors or research reactors and no uranium mining or fuel fabrication facilities. The generation of radioactive waste is therefore on a very small scale when compared with countries which have or had such facilities, being limited to radioactive waste arising from the use of radioactive materials in medicine, industry and research/teaching. Sealed Radioactive sources are licensed by the regulator, the Radiological Protection Institute of Ireland, on the understanding that they will be returned to the supplier when no longer required. Unsealed radioactive waste must be held in storage until the radioactive content decays to below values where disposal is permitted. Normally radioactive waste is stored on the premises where the practice, which generated it, is located. There is no central radioactive waste repository in Ireland.

Storage of all radioactive waste is subject to strict control by licence and inspection by the RPII.

The sealed radioactive sources listed in the inventories below arise from sources which were imported prior to the introduction of the take-back licencing requirement, and sources where, for what ever reason, the take-back agreement has not been honoured

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Ireland Reporting Year: 2006

Reporting Group: **Education**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: The term Education refers to 13 sites located throughout the country, such as universities who are involved with education and research and who are licenced to hold disused radioactive materials.

Site Name	Facility Name	Facilities Defined		
Education	Education		storage	

Reporting Group: **Industry**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: This group represents the disused sources held at industrial premises in Ireland.

Site Name	Facility Name	Facilities Defined		
Industry	Industry		storage	

Reporting Group: **Medical**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: The term Medical refers to 12 licensed hospitals located throughout the country who hold disused radioactive sources.

Site Name	Facility Name	Facilities Defined		
Medical	Medical		storage	

Reporting Group: **State Labs**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: The term refers to 11 licensees, such as State run laboratories, located thoughout the country and who hold disused radioactive sources.

Site Name	Facility Name	Facilities Defined		
State Labs	State Labs		storage	

Reporting Group Education, Site Structure: Education

Country: Ireland Reporting Year: 2006

Full Name:

Location: The term Education refers to 13 sites located throughout the country, such as universities who are involved with education and research and who are licenced to hold disused radioactive materials.

License Holder(s) : Third Level Institutes of Education

The following list the waste management facilities that are located at this site.

Facility: Education

Description	Third level educational institutes storing sealed sources

Storage part of the "Education" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	No			
List SRS?	Yes				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	various	0	No	No	No	Yes
Type comment:	collection of facilities					

Reporting Group Education, Site Data: Education

Country: Ireland Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Co-60		1		Yes	No	4	1.11E+01	
		1.11E+01						
Cs-137	11			Yes	No	5	9.15E-02	
	9.15E-02							
Sr-90	30			Yes	No	5	3.24E-03	
	3.24E-03							
Sr-90	1	2		Yes	No	4	1.52E+02	
	7.40E-01	1.52E+02						
Cs-137		1		Yes	No	4	1.37E+01	
		1.37E+01						
Cd-109	1			Yes	No	5	1.10E-01	
	1.10E-01							
Co-60	24			Yes	No	4	2.15E-01	
	2.15E-01							
Co-57	9			Yes	No	5	4.50E+00	
	4.50E+00							
Fe-55	1			Yes	No	5	3.70E-01	
	3.70E-01							
H-3		2		Yes	No	5	3.70E+01	
		3.70E+01						

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Th-232	3		Yes	No	5	1.00E-04	
	1.00E-04						
Sm-151	1	2	Yes	No	4	7.77E+00	
	3.70E-01	7.40E+00					
Ra-226	12		Yes	No	5	4.00E-02	
	4.00E-02						
Ni-63	1		Yes	No	5	3.70E-01	
	3.70E-01						
Am-241	17		Yes	No	5	6.00E-03	
	6.00E-03						

Reporting Group Industry, Site Structure: Industry

Country: Ireland Reporting Year: 2006

Full Name:

Location: The term refers to the several industrial licensees who hold disused sources.

License Holder(s) : Various industrial companies

The following list the waste management facilities that are located at this site.

Facility: Industry

Description	This term refers to the disused sources held by industrial licensees in Ireland

Storage part of the "Industry" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	No			

List SRS?	Yes
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	various	0	No	No	No	Yes
Type comment:	collection of facilities					

Reporting Group Industry, Site Data: Industry

Country: Ireland Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Cm-244	1			Yes	No	4	3.70E+00	
	3.70E+00							
Co-60	1			Yes	No	5	3.70E-01	
	3.70E-01							
Ir-192	1			Yes	No	4	1.00E-01	
	1.00E-01							
Na-22	1			Yes	No	5	3.70E-04	
	3.70E-04							
Sr-90	3			Yes	No	5	3.74E-01	
	3.74E-01							
Hg-203	1			Yes	No	5	1.50E-03	
	1.50E-03							
Cf-252	1			Yes	No	5	4.00E-05	
	4.00E-05							
Cs-137		1		Yes	No	3	1.11E+02	
		1.11E+02						
Cs-137	16			Yes	No	5	3.60E-02	
	3.60E-02							
Po-210	2			Yes	No	5	2.00E-02	
	2.00E-02							
Tl-204	8			Yes	No	4	4.94E-01	
	4.94E-01							
H-3		300		Yes	No	4	2.77E+05	
		2.77E+05						
Pm-147	7			Yes	No	4	1.00E-01	
	1.00E-01							
Sr-90	21			Yes	No	4	1.31E+01	
	1.31E+01							
Co-60	1			Yes	No	4	3.70E+00	
	3.70E+00							
Kr-85		6		Yes	No	4	5.58E+01	
		5.58E+01						
Cs-137	28	3		Yes	No	4	6.63E+01	
	3.11E+01	3.52E+01						

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Am-241	6		Yes	No	5	1.20E-02	
	1.20E-02						

Reporting Group Industry, Site Data: Industry

Country: Ireland Reporting Year: 2006

Am-241		1	Yes	No	3	1.85E+01	
		1.85E+01					
Ra-226	2		Yes	No	5	5.40E-02	
	5.40E-02						
Pu-238	2		Yes	No	5	1.48E+00	
	1.48E+00						
Ni-63	28		Yes	No	5	1.04E+01	
	1.04E+01						
Am-241	42	4	Yes	No	4	5.97E+01	
	4.30E+01	1.67E+01					

Comment #7192: Neutron generators

Data for Am-241sources includes 8 Am-241/Be (cat 4) sources of total activity 12.36 GBq plus one source(cat 3) of 18.5GBq

Reporting Group Medical, Site Structure: Medical

Country: Ireland Reporting Year: 2006

Full Name:

Location: The term Medical refers to 12 licensed hospitals located throughout the country who hold disused radioactive sources.

License Holder(s) : Hospitals

The following list the waste management facilities that are located at this site.

Facility: Medical

Description	12 Hospitals storing sources

Storage part of the "Medical" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	No			
List SRS?	Yes				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	various	0	No	No	No	Yes
Type comment:	collection of facilities					

Reporting Group Medical, Site Data: Medical

Country: Ireland Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Ge-68	4			Yes	No	5	1.60E+00	
	1.60E+00							
Gd-153		3		Yes	No	4	1.11E+02	
		1.11E+02						
Cs-137	17			Yes	No	5	1.00E-01	
	1.00E-01							
Co-57	46			Yes	No	5	5.35E+00	
	5.35E+00							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226	7		Yes	No	5	4.50E-02	
	4.50E-02						
Ni-63	1		Yes	No	5	5.55E-01	
	5.55E-01						
Pu-238		1	Yes	No	3	9.25E+01	
		9.25E+01					
Am-241	3		Yes	No	4	4.44E-01	
	4.44E-01						

Reporting Group State Labs, Site Structure: State Labs

Country: Ireland Reporting Year: 2006

Full Name:

Location: The term refers to 11 licensees, such as State run laboratories, located thoughout the country and who hold disused radioactive sources.

License Holder(s) : State Labs and agencies

The following list the waste management facilities that are located at this site.

Facility: State Labs

Description	State laboratories and agencies that are storing a disused source(s)

Storage part of the "State Labs" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	No			

List SRS?	Yes
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	various	0	No	No	No	Yes
Type comment:	collection of facilities					

Reporting Group State Labs, Site Data: State Labs

Country: Ireland Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Ba-133	1			Yes	No	5	3.30E-01	
	3.30E-01							
Cs-137	5			Yes	No	5	1.06E-02	
	1.06E-02							
Sr-90	2	1		Yes	No	4	7.59E+00	
	1.85E-01	7.40E+00						
Tl-204	1			Yes	No	5	7.00E-03	
	7.00E-03							
H-3		1		Yes	No	5	6.48E+00	
		6.48E+00						
Fe-55	1			Yes	No	5	1.67E+00	
	1.67E+00							
Cd-109	1			Yes	No	5	1.85E-01	
	1.85E-01							
Cs-137	9			Yes	No	4	1.08E+01	
	1.08E+01							
Co-60	130			Yes	Yes	5	2.39E+01	
	2.39E+01							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Am-241	7	2	Yes	No	4	3.03E+01	
	8.14E+00	2.22E+01					
U-238	3		Yes	No	5	5.55E-01	
	5.55E-01						
Ra-226	890		Yes	Yes	4	6.70E-02	
	6.70E-02						
Ni-63	7		Yes	No	5	2.97E+00	
	2.97E+00						
C-14	75		Yes	No	5	1.39E-01	
	1.39E-01						
Cl-36	1		Yes	No	5	6.00E-05	
	6.00E-05						

Comment #7191: Neutron generators

Am-241 sources of < 4GBq, include 5 Am-241/Be sources of total activity 8.14GBq

REGULATORS

Country: Ireland Reporting Year: 2006

Name	RPII
Full Name	Radiological Protection Institute of Ireland
Division	Regulatory Service
City or Town	Dublin

REGULATIONS / LAWS

Country: Ireland

Reporting Year: 2006

Name	SI 125	
Title or Name	Radiological Protection Act, 1991(Ionising Radiation) Order, 2000(SI125 of 2000) giving effect to EU Council Directive 96/29/Euratom 1996	
Reference Number	SI125 of 2000	
Date Promulgated or Proclaimed	2000-05-13	Law

Country Waste Profile Report for

Italy

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 15:35:58

Waste Class Matrix(ces) Used/Defined

Country: Italy (Italian Republic) Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: APAT GT26

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
1st Category	100	0	0
2nd Category	100	0	0
3rd Category	0	80	20

Description: Long lived wastes not included in category I and II; high level wastes from reprocessing of spent fuel and alpha bearing wastes from the fuel cycle and R&D activities

Attachment #1292: Technical Guide APAT n°26

File name: TECHNICAL GUIDE N 26.doc

File type: MS Office Document

Member State's Reference # APAT TG 26

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Italy (Italian Republic) | Reporting Year: 2006

Reporting Group: **CCR Ispra**

Inventory Reporting Date: December 2006

Waste Matrix Used: APAT GT26

Description: Joint Research Center Ispra

Site Name	Facility Name	Facilities Defined		
CCR Ispra	storage		storage	

Reporting Group: **FCF**

Inventory Reporting Date: December 2006

Waste Matrix Used: APAT GT26

Description: Fuel Cycle Facilities

Site Name	Facility Name	Facilities Defined		
Avogadro	Storage		storage	
Eurex	Storage		storage	
FN	Storage		storage	
IPU	Storage		storage	
ITREC	SIRTE-MOWA	processing	storage	
	Storage		storage	
Opec	Storage		storage	

Reporting Group: **NPPs**

Inventory Reporting Date: December 2006

Waste Matrix Used: APAT GT26

Description: In Italy operated 4 NPPs owned by the national electricity company ENEL. After the shut down due to a referendum on 1987, on 1999 all the ENEL’s liabilities and assets connected to nuclear power have been assigned to a newly established company, named SOGIN (Società Gestione Impianti Nucleari).
SOGIN has the responsibility of waste management and complete decommissioning of all the NPPs.

Site Name	Facility Name	Facilities Defined		
Caorso	LILW store		storage	
	Pool		storage	
Garigliano	LILW store		storage	
Latina	LILW store		storage	
Trino	LILW store		storage	
	Pool		storage	

Groups Overview

Country: Italy (Italian Republic) Reporting Year: 2006

Reporting Group: **Nucleco**

Inventory Reporting Date: December 2006

Waste Matrix Used: APAT GT26

Description: Radioactive waste collection, treatment and storage facility

Site Name	Facility Name	Facilities Defined		
Nucleco	Process	processing		
	Storage		storage	

Reporting Group: **R&IRW**

Inventory Reporting Date: December 2006

Waste Matrix Used: APAT GT26

Description: Research and Institutional radioactive waste facilities

Site Name	Facility Name	Facilities Defined		
Various	Storage		storage	

Reporting Group CCR Ispra, Site Structure: CCR Ispra

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Euratom Joint Research Center Ispra

Location: Ispra (Varese)

License Holder(s) : Euratom

The following list the waste management facilities that are located at this site.

Facility: storage

Description	several facilities

Storage part of the "storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	No
3rd Category	Yes	No			
SRS	No	No			

List SRS?	No
Capacity	sufficient for all waste

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
various	various	1970	No	No	No	No
Type comment:	radioactive waste are kept in storage, waiting for the final treatment, in different facilities (buildings, trench, well etc ...)					

Reporting Group CCR Ispra, Site Data: CCR Ispra

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Euratom Joint Research Center Ispra

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage	No	1797	0	0	0	100	0	0	0	Yes
3rd Category	Storage	No	762	0	0	0	100	0	0	0	Yes

Reporting Group FCF, Site Structure: Avogadro

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Deposito Avogadro

Location: Saluggia (VC)

License Holder(s) : FIAT AVIO

The following list the waste management facilities that are located at this site.

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	Yes
3rd Category	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1980	No	No	No	No
Pool	pool	1980	No	No	No	No

Reporting Group FCF, Site Data: Avogadro

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Deposito Avogadro

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage	No	47.7	100	0	0	0	0	0	0	Yes

Reporting Group FCF, Site Structure: Eurex

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name:	Enriched Uranium Extraction plant
Location:	Saluggia (VC)
License Holder(s) :	SOGIN

The following list the waste management facilities that are located at this site.

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	Yes
3rd Category	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1980	No	No	No	No
Tanks	tank (stainless steel)	1970	No	No	No	No

Reporting Group FCF, Site Data: Eurex

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Enriched Uranium Extraction plant

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage Liquid	No	144.8	0	0	100	0	0	0	0	Yes
2nd Category	Storage Solid	No	1179.5	0	0	100	0	0	0	0	Yes
2nd Category	Storage Solid	Yes	169.7	0	0	100	0	0	0	0	Yes
3rd Category	Storage Liquid	No	113.3	0	0	100	0	0	0	0	Yes
3rd Category	Storage Solid	No	282.9	0	0	100	0	0	0	0	Yes
3rd Category	Storage Solid	Yes	21	0	0	100	0	0	0	0	Yes

Reporting Group FCF, Site Structure: FN

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Fabbricazioni Nucleari

Location: Boscomarengo (AL)

License Holder(s) : Sogin

The following list the waste management facilities that are located at this site.

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	Yes
3rd Category	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1975	No	No	No	No

Reporting Group FCF, Site Data: FN

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Fabbricazioni Nucleari

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage	No	55.2	0	100	0	0	0	0	0	Yes
2nd Category	Storage	Yes	232.2	0	100	0	0	0	0	0	Yes

Reporting Group FCF, Site Structure: IPU

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Impianto Plutonio

Location: Casaccia (Roma)

License Holder(s) : Sogin

The following list the waste management facilities that are located at this site.

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	No	Yes
3rd Category	Yes	Yes			
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1975	No	No	No	No

Reporting Group FCF, Site Data: IPU

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Impianto Plutonio

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
3rd Category	Storage	No	98	0	100	0	0	0	0	0	Yes

Reporting Group FCF, Site Structure: ITREC

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Fuel elements treatment and fabrication plant

Location: Rotondella (MT)

License Holder(s) : Sogin

The following list the waste management facilities that are located at this site.

Facility: SIRTE-MOWA

Description	Cementation facility

Storage part of the "SIRTE-MOWA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	Yes	Yes	2nd Category	Yes	Yes
3rd Category	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1975	No	No	No	No

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	Yes	Yes	2nd Category	Yes	Yes
3rd Category	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storgae	building	1980	No	No	No	No

Reporting Group FCF, Site Data: ITREC

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Fuel elements treatment and fabrication plant

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
1st Category	Storage	No	420	0	0	0	0	0	100	0	Yes
2nd Category	Storage	No	2153.9	0	0	100	0	0	0	0	Yes
2nd Category	Storage	Yes	823.1	0	0	100	0	0	0	0	Yes
3rd Category	Storage	No	9.8	0	0	100	0	0	0	0	Yes

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation				Yes

Reporting Group FCF, Site Structure: Opec

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Hot Operation Laboratory

Location: Casaccia (Roma)

License Holder(s) : Sogin

The following list the waste management facilities that are located at this site.

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	No	Yes
3rd Category	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1970	No	No	No	No

Reporting Group FCF, Site Data: Opec

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Hot Operation Laboratory

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
3rd Category	Storage	No	36.5	0	0	0	100	0	0	0	Yes

Reporting Group NPPs, Site Structure: Caorso

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Nucleare Caorso

Location: Caorso (PC)

License Holder(s) : SOGIN

The following list the waste management facilities that are located at this site.

Facility: LILW store

Description	Various storage facilities

Storage part of the "LILW store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	Yes
3rd Category	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ERS	building	1980	No	No	No	No

Facility: Pool

Description	Reactor pool

Storage part of the "Pool" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	No	No
3rd Category	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
pool	pool	1980	No	No	No	No

Reporting Group NPPs, Site Data: Caorso

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Nucleare Caorso

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage	No	2064.3	100	0	0	0	0	0	0	Yes
2nd Category	Storage	Yes	424.8	100	0	0	0	0	0	0	Yes

Reporting Group NPPs, Site Structure: Garigliano

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Elettronucleare del Garigliano

Location: Sessa Aurunca (CE)

License Holder(s) : SOGIN

The following list the waste management facilities that are located at this site.

Facility: LILW store

Description	LILW storage facilities

Storage part of the "LILW store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	Yes
3rd Category	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1975	No	No	No	No

Reporting Group NPPs, Site Data: Garigliano

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Elettronucleare del Garigliano

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage	No	1108.4	80	0	0	0	0	20	0	Yes
2nd Category	Storage	Yes	1550.6	80	0	0	0	0	20	0	Yes

Reporting Group NPPs, Site Structure: Latina

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Elettronucleare di Latina

Location: Borgo Sabotino (LT)

License Holder(s) : SOGIN

The following list the waste management facilities that are located at this site.

Facility: LILW store

Description	LILW storage facilities

Storage part of the "LILW store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	Yes
3rd Category	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1975	No	No	No	No

Reporting Group NPPs, Site Data: Latina

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Elettronucleare di Latina

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage	No	914.3	80	0	0	0	0	20	0	Yes
2nd Category	Storage	Yes	309.5	80	0	0	0	0	20	0	Yes
3rd Category	Storage	No	12.1	100	0	0	0	0	0	0	Yes

Reporting Group NPPs, Site Structure: Trino

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Elettronucleare E.Fermi

Location: Trino (VC)

License Holder(s) : SOGIN

The following list the waste management facilities that are located at this site.

Facility: LILW store

Description	LILW storage facilities

Storage part of the "LILW store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	Yes	Yes
3rd Category	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Store	building	1975	No	No	No	No

Facility: Pool

Description	Reactor pool

Storage part of the "Pool" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	No	No	2nd Category	No	No
3rd Category	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Pool	pool	0	No	No	No	No

Reporting Group NPPs, Site Data: Trino

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Centrale Elettronucleare E.Fermi

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
2nd Category	Storage	No	331.8	90	0	0	0	0	10	0	No
2nd Category	Storage	Yes	716.5	100	0	0	0	0	0	0	No
3rd Category	Storage	No	24.6	100	0	0	0	0	0	0	No

Reporting Group Nucleco, Site Structure: Nucleco

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Nuclear Ecology

Location: Casaccia (Roma)

License Holder(s) : ENEA

The following list the waste management facilities that are located at this site.

Facility: Process

Description	

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	Yes	Yes	2nd Category	Yes	Yes
3rd Category	No	Yes			
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Store	building	1985	No	No	No	No

Reporting Group Nucleco, Site Data: Nucleco

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name: Nuclear Ecology

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
1st Category	Storage	No	1677	0	0	0	100	0	0	0	No
2nd Category	Storage	No	1037.7	0	70	0	30	0	0	0	Yes
2nd Category	Storage	Yes	3379.5	0	70	0	30	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Grouting			same	

Reporting Group R&IRW, Site Structure: Various

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name:

Location:

License Holder(s) : different operators

The following list the waste management facilities that are located at this site.

Facility: Storage

Description	

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
1st Category	Yes	Yes	2nd Category	Yes	Yes
3rd Category	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Store	building	1980	No	No	No	No

Reporting Group R&IRW, Site Data: Various

Country: Italy (Italian Republic) Reporting Year: 2006

Full Name:

Inventory Reporting Date: December 2006 Waste Matrix: APAT GT26

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
1st Category	Storage	No	3198.75	0	0	0	100	0	0	0	Yes
2nd Category	Storage	No	1447.69	0	0	0	100	0	0	0	Yes
2nd Category	Storage	Yes	110	0	0	0	100	0	0	0	Yes
3rd Category	Storage	No	20.1	0	0	0	100	0	0	0	Yes
3rd Category	Storage	Yes	140	0	0	0	100	0	0	0	Yes

REGULATORS

Country: Italy (Italian Republic) Reporting Year: 2006

Name	APAT
Full Name	Agenzia per la Protezione dell'Ambiente e per i Servizi Tecnici Agency for the Environmental Protection and for the Technical Services
Division	Nuclear and Industrial Risk Department
City or Town	Rome

REGULATIONS / LAWS

Country: Italy (Italian Republic) Reporting Year: 2006

Name	Law n°1860	
Title or Name	Law no. 1860 of 31 December 1962	
Reference Number	Law no. 1860 of 31 December 1962	
Date Promulgated or Proclaimed	1962-12-31	Law

Name	LD n°230	
Title or Name	Legislative Decree no. 230 of 17 March 1995	
Reference Number	Legislative Decree no. 230 of 17 March 1995	
Date Promulgated or Proclaimed	1995-03-17	Law

Name	LD n°241	
Title or Name	Legislative Decree no. 241 of 26th May 2000	
Reference Number	Legislative Decree no. 241 of 26th May 2000	
Date Promulgated or Proclaimed	2000-05-26	Law

Policies

Country: Italy (Italian Republic) Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

Comment #7364: Policy on Radioactive waste management

Strategic guidelines for the management of the past nuclear activities and in particular for the radioactive waste management and decommissioning of the nuclear installations are provided in a Ministerial Decree of 1999.

The Decree established the procedures for the immediate dismantling of the 4 NPPs and fuel cycle facilities and for the realization of a national LLW repository and of a long term storage facility for the HLW and SF.

The growing international concern on terrorist activities has emphasized the risk for the unresolved solution of spent fuel and radioactive waste disposal management, consequently Legislative Decree has been approved on december 2003. The LD n° 368 establishes the procedures for the identification and operation by 2008 of a repository for HLW and SF.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	No
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete

Policies

Country: Italy (Italian Republic) **National Systems** Reporting Year: 2006

16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes

If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below

Attachment #1294: site and solid material release in Italy

File name: Site and materials release in Italy.doc

File type: MS Office Document

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	not answered
41	Environmental Impact Statement (EIS)	not answered
42	Performance Assessment (PA)	not answered
43	Quality Assurance (QA)	not answered
44	Safety Assessment (SA)	not answered

Comment #7608: Disposal facilities

In Italy, there is not yet a LLW disposal facility and the radioactive waste from NPPs and from experimental fuel cycle facilities is still stored at their points of origin. Radioactive waste from medical, industry and research activities is collected for temporary storage by private operators. Most of this waste is stored as produced, waiting for treatment and/or conditioning. According to the present strategy, a national site for LLW disposal and for the HLW long term storage (including spent fuel) is foreseen by the end of 2008.

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

Comment #7610: Policy on Radioactive waste management

Even if disposal facilities are not available, APAT Technical Guide n°26 gives Waste Acceptance Criteria for LLW conditioning that are considered for a conceptual near surface disposal facility.

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)

Does your country have written policies or written procedures for the following:

60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes

Policies

Country: Italy (Italian Republic) **Processing/Storage** Reporting Year: 2006

63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	Yes
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
110	Currently, are any of your country’s wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

Attachment #1293: This document describes SRS regulation in Italy and includes information about the total activity of SRS that are stored at various sites throughout Italy.

File name: Spent Sources Regulation in ITALY.doc

File type: MS Office Document

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

Policies

Country: Italy (Italian Republic) **Spent SRS** Reporting Year: 2006

	Agreements	(Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	No
84	Do any agreements include suppliers that are outside of your Country?	No

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	No

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	Yes

	Processing	(Yes - All;Yes - Some;No)
94	If your Country has high-level liquid wastes in storage, are there documented plans in place to process these liquids?	Yes - Some

	Timeframe	(Yes - All;Yes - Some;No)
95	If your Country has high-level liquid wastes in storage, are there plans to have this waste be processed within a specified time frame?	Yes - Some
96	If the answer to the previous question is Yes, what year is this processing planned to be completed (format = YYYY)	2009

Policies

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Japan

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 10:16:03

Waste Class Matrix(ces) Used/Defined

Country: Japan Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: JP

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
HLW	0	0	100
LLW	100	0	0

Description: Radioactive waste is classified into two categories, namely HLW (liquid waste generated from spent fuel reprocessing and its vitrified package) and other LLW. Reported % for LLW is only applicable to disposal packages and will be updated in a future submission. Please refer to the comment that is included for this matrix.

Comment #12115: Waste classification in Japan

Radioactive waste other than HLW is usually called as LLW (ie. based on exclusion). Therefore, LLW includes items ranging from very low activity waste from hospitals and universities up to highly active waste such as ion exchange resins from reactor water clean up systems, irradiated reactor core components and some LLW containing transuranic nuclides (so-called TRU waste) which is to be disposed of geologically. The LLW has been sub-classified according to origin (differing radionuclide composition) and level of radioactivity in the development of waste management policy. Waste origin information is supplied according to the %distribution in Waste Data component of the NEWMDB,

Waste Class Matrix: DISPOSAL

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Geological	0	78	22
Sub-surface with EBS	0	100	0
Near-surface with EBS	100	0	0
Near-surface without EBS	100	0	0

Description: Disposal-based classification from the Framework for Nuclear Energy Policy (October 11, 2005) decided by Japan Atomic Energy Commission (AEC). Clearance may be regarded but omitted here.
% of “Geological” class is based on future disposal package generation (HLW glass packages and some waste from reprocessing and MOX fuel fabrication those are subjected to the geological disposal). % of “Sub-surface with EBS” class (all LILW-LL) is ad-hoc and controversial.

Comment #12127: Disposal-based classification

In the Framework for Nuclear Energy Policy (October 11, 2005) decided by Japan Atomic Energy Commission (AEC), radioactive waste is grouped into two categories: a) radioactive wastes for geological disposal, and b) radioactive wastes for disposal with institutional control. Methods of disposal with institutional control include: b-1) near-surface disposal without engineered barriers, b-2) near-surface disposal with engineered barriers, and b-3) sub-surface disposal with engineered barriers.

The Framework for Nuclear Energy Policy (October 11, 2005, AEC) is available form:
http://aec.jst.go.jp/jicst/NC/tyoki/taikou/kettei/eng_ver.pdf
(see §2-3. Treatment and Disposal of Radioactive Waste)

Waste Class Matrix(ces) Used/Defined

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X	X	X	
processed				X

Groups Overview

Country: Japan | Reporting Year: 2006

Reporting Group: **disposal**

Inventory Reporting Date: March 2007

Waste Matrix Used: DISPOSAL

Description: repository

Site Name	Facility Name	Facilities Defined		
JAEA Tokai	VLLW			disposal
NUMO	HLW			disposal
Rokkasho	LLWDC-1			disposal
	LLWDC-2			disposal

Reporting Group: **foreign**

Inventory Reporting Date: March 2007

Waste Matrix Used: JP

Description: Sites in Other Countries (No infomation reported according to the NEWMDB instruction. This Reporting Group only means that some waste to be returned are stored in foreign countries.)

Comment #12130: Reprocessing in Overseas

Utilities in Japan have concluded reprocessing contracts with British and French companies for a total of 5,600 t U of spent fuel from light water reactors and 1,500 t U of spent fuel from a gas cooled reactor.

Uranium and Plutonium recovered from reprocessing of spent fuel are returned to each Japanese company as recycled nuclear fuel. At the same time, radioactive waste, a byproduct of reprocessing, is also returned.

Reporting Group: **JAEA**

Inventory Reporting Date: March 2007

Waste Matrix Used: JP

Description: Japan Atomic Energy Agency
Note: Japan Atomic Energy Agency (JAEA) has newly established with the integration of Japan Atomic Energy Research Institute (JAERI) and Japan Nuclear Cycle Development Institute (JNC) as of October 1, 2005.

Site Name	Facility Name	Facilities Defined		
Mutsu	Sekinehama	processing	storage	
Ningyo	UEP(R&D)	processing	storage	
Oarai	RWM	processing	storage	
Tokai	NFCEL	processing	storage	
	NSRI	processing	storage	
	Pu-fuel DC	processing	storage	
	REP.DC	processing	storage	
Tsuruga	Fugen	processing	storage	
	Monju	processing	storage	

Groups Overview

Country: Japan Reporting Year: 2006

Reporting Group: **JNFL**

Inventory Reporting Date: March 2007

Waste Matrix Used: JP

Description: Japan Nuclear Fuel Limited (JNFL)

Site Name	Facility Name	Facilities Defined		
Rokkasho	REP	processing	storage	
	UEP		storage	
	VWSC		storage	

Reporting Group: **JRIA**

Inventory Reporting Date: March 2007

Waste Matrix Used: JP

Description: Japan Radioisotope Association (JRIA)

Site Name	Facility Name	Facilities Defined		
RIWM	RWM(RI)	processing	storage	

Reporting Group: **other**

Inventory Reporting Date: March 2007

Waste Matrix Used: JP

Description: small-and-medium-sized nuclear/radioisotopes application (NOTE: This RG will NOT be opened to the public. see comment #12189 of the "known" facility in the "other" site.)

Site Name	Facility Name	Facilities Defined		
other	known		storage	

Reporting Group: **U Fuel Fab**

Inventory Reporting Date: March 2007

Waste Matrix Used: JP

Description: Uranium Fuel Fabrication

Waste Data is consolidated to the "All FFP" (all fuel fabrication plant) site. Other (real) sites are for storage units information reporting.

Site Name	Facility Name	Facilities Defined		
All FFP	all FFP	processing	storage	
GNF-J	FFP		storage	
JCO	FFP-closed		storage	
MNF	FFP		storage	
NFI Kumato	FFP		storage	
NFI Tokai	FFP		storage	

Groups Overview

Country: Japan Reporting Year: 2006

Reporting Group: **Utilities**

Inventory Reporting Date: March 2007

Waste Matrix Used: JP

Description: Commercial Nuclear Power Generation

Waste Data is consolidated to the "All NPS" (all nuclear power station) site. Other (real) sites are for storage units information reporting.

Site Name	Facility Name	Facilities Defined		
All NPS	all NPP	processing	storage	
Fukushima1	NPP		storage	
Fukushima2	NPP		storage	
Genkai	NPP		storage	
Hamaoka	NPP		storage	
Higashidor	NPP		storage	
Ikata	NPP		storage	
Kashiwazak	NPP		storage	
Mihama	NPP		storage	
Ohi	NPP		storage	
Onagawa	NPP		storage	
Sendai	NPP		storage	
Shika	NPP		storage	
Shimane	NPP		storage	
Takahama	NPP		storage	
Tokai	NPP		storage	
Tomari	NPP		storage	
Tsuruga	NPP		storage	

Reporting Group disposal, Site Structure: JAEA Tokai

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Tokai Research and Development Center

Location: Tokai Vil., Ibaraki Pref.

License Holder(s) : Japan Atomic Energy Agency (JAEA)

The following list the waste management facilities that are located at this site.

Facility: VLLW

Description	Waste Disposal facility (Waste burial test site in the JPDR dismantling project)

Disposal part of the "VLLW" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Geological	No	No	Sub-surface with EBS	No	No
Near-surface with EBS	No	No	Near-surface without EBS	Yes	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	2520	Capacity -planned (m3)	2520
Depth (m)	2.5 - 6.0		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1981	
commissioning			1995
operation		1995	1996
closure		1996	
institutional control		1997	2027

Reporting Group disposal, Site Data: JAEA Tokai

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Tokai Research and Development Center

Inventory Reporting Date: March 2007 Waste Matrix: DISPOSAL

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Near-surface without EBS	Disposal	Yes	1670	0	0	0	100	0	0	0	No

Comment #12177: Disposed Waste

Note: 1,670 ton of waste disposed (no m³ value is available).
Regard to the JPDR dismantling project, a total of 24,400 tons of waste, including 3,340 tons of radioactive waste, was produced from all dismantling activities. The extremely low level concrete waste (1,670 tons, which was 6.8% of the total waste) was disposed in a nearby surface burial location.

Reporting Group disposal, Site Structure: NUMO

Country: Japan Reporting Year: 2006

Full Name:	(To Be Determined) a future site for the HLW repository to be developed by the Nuclear Waste Management Organization of Japan (NUMO).
Location:	site not selected
License Holder(s) :	not licensed (in site selection phase for the HLW repository; NUMO is a disposal implementing entity)

The following list the waste management facilities that are located at this site.

Facility: HLW

Description	Final Disposal Facility of Vitrified HLW (in Site Selection Phase)

Disposal part of the "HLW" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Geological	No	Yes	Sub-surface with EBS	No	No
Near-surface with EBS	No	No	Near-surface without EBS	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	6000
Depth (m)	> 300		
Host medium	unknown (site not selected)		

Phase	Estimate	Start Year	End Year
site selection	Yes	2002	2027
construction	Yes	2025	
operation	Yes	2035	

Comment #12191: Capacity - planned:

The capacity of a final disposal facility is not less than 40,000 canisters.
«Program for Final Disposal of the Specified Radioactive Waste, cabinet decision, October 28, 2005» - This program shall be provided every 5 years by the Minsister of METI pursuant to the article 4 of the Specified Radioactive Waste Final Disposal Act.

Capacity value in m3 unit is not available, however tentatively reported on the assumption such that a canister volume is 150L in average. (JAEA Toaki:120L, JNFL: 170L)

Comment #12192: Depth:

The Specified Radioactive Waste is to be disposed of at the depth specifed by the Cabinet Order not less than 300 meter under the ground in geological formations.
«Article 2 of the Specified Radioactive Waste Final Disposal Act»

Comment #12193: Phase:

A repository site is to be selected via stepwise procedures pursuant to the Specified Radioactive Waste Final Disposal Act.
• Selection of Preliminary Investigation Areas (PIAs)
• Selection of Detailed Investigation Areas (DIAs) 2009~2013
• Selection of a repository site (2023~2027)

• Design of the repository and licensing
• Start of construction (around 2025)
• Start of operations (2033~2037)

Reporting Group disposal, Site Structure: Rokkasho

Country: Japan Reporting Year: 2006

Full Name:	JNFL :: Low-Level Radioactive Waste Disposal Center
Location:	Rokkasho Vil., Aomori Pref.
License Holder(s) :	Japan Nuclear Fuel Limited (JNFL)

Comment #12156: LLW Disposal Center

Approved for a total capacity of 80,000 m^3, the Low-Level Radioactive Waste Disposal Center has now its No.1 and No.2 disposal facility. The ultimate capacity is planned to be 600,000 m^3.

The following list the waste management facilities that are located at this site.

Facility: LLWDC-1

Description	Low-Level Radioactive Waste Disposal Center; No.1 Disposal facility

Disposal part of the "LLWDC-1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Geological	No	No	Sub-surface with EBS	No	No
Near-surface with EBS	Yes	Yes	Near-surface without EBS	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	30720	Capacity -planned (m3)	40000
Depth (m)	6 - 12		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1982	1985
site selection		1984	1985
design		1985	1990
construction		1990	2027
commissioning		1988	1990
operation		1992	2027
closure		2027	
institutional control		2027	2327

Comment #12157: Disposal Facility LLWDC-1

Capacity existing: 153,600 drums (=5,120x5x6)
Capacity planned: 200,000 drums

Reporting Group disposal, Site Structure: Rokkasho

Country: Japan Reporting Year: 2006

Facility: LLWDC-2

Description	Low-Level Radioactive Waste Disposal Center; No.2 Disposal facility

Disposal part of the "LLWDC-2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Geological	No	No	Sub-surface with EBS	No	No
Near-surface with EBS	Yes	Yes	Near-surface without EBS	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	20736	Capacity -planned (m3)	40000
Depth (m)	11 - 18		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1992	1993
site selection		1984	1985
design		1993	1998
construction		1998	2030
commissioning		1997	1998
operation		2000	2030
closure		2030	
institutional control		2030	2330

Comment #12158: Disposal Facility LLWDC-2

Capacity existing: 103,680 drums (=12,960x2x4)
Capacity planned: 200,000 drums

Reporting Group disposal, Site Data: Rokkasho

Country: Japan Reporting Year: 2006

Full Name: JNFL ::
Low-Level Radioactive Waste Disposal Center

Inventory Reporting Date: March 2007 Waste Matrix: DISPOSAL

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Near-surface with EBS	Disposal LLWDC-1	Yes	27336.6	100	0	0	0	0	0	0	No
Near-surface with EBS	Disposal LLWDC-2	Yes	11132.8	100	0	0	0	0	0	0	No

Comment #12178: Waste Inventory in JNFL::LLWDC

Total 192,347 drums have disposed of at March 31, 2007.
- 136,683 drums (200L equivalent) in No.1 Disposal Facility
- 55,664 drums (200L equivalent) in No.2 Disposal Facility

Note: Since the start of the disposal operation in LLWDC, 194,347 drums have received from NPP sites, of which 2,000 drums are pending prior to disposed of at the reporting date and those volume will be reported at the next NEWMDB cycle.

Reporting Group JAEA, Site Structure: Mutsu

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Mutsu Establishment

Location: Mutsu City, Aomori Pref.

License Holder(s) : Japan Atomic Energy Agency (JAEA)

Comment #12171: Nuclear Ship “Mutsu”

The reactor of the decommissioned Nuclear Ship “Mutsu” has been safely stored in the Mutsu Science Museum (located at Sekinahama), and is now opened to the public.
Dismantled equipments and radioactive waste are also stored in this site.

The following list the waste management facilities that are located at this site.

Facility: Sekinehama

Description	Reactor Facility of the 1st Nuclear Ship "Mutsu"; Dismantling completed in 1995. (waste storage facilities located af Sekinehama)

Processing part of the "Sekinehama" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	, Phased

Storage part of the "Sekinehama" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	1,768 drums (353.6 m³) solid waste				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
R&RW/B	building	1988	No	No	No	No
DE/B	building	1995	No	No	No	No
RR/B	building	1996	Yes	Yes	No	No

Comment #12114: Storage Units in JAEA::Mutsu

•F&RW/B: Fuel and Radioactive Waste handling Bldg.
•DE/B: Dismantled Equipments storage Bldg.
•RR/B: Reactor Room storage Bldg.

‡: The capacity dose not include 880 m³ of dismantled reactor room displayed in the RR/B which is a part of the Science Museum.

Reporting Group JAEA, Site Data: Mutsu

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Mutsu Establishment

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	200	0	0	0	100	0	0	0	No

Comment #12180: Waste Inventory in JAEA::Mutsu

• 1,047 drums (200L equivalent).
excluded waste volume of the dismantled Reactor (880 m³) in the Mutsu Science Museum
(reported volume in m³) = (number of drums rounded to nearest 100) x 0.2

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			intermittent	
Ion Exchange			intermittent	

Reporting Group JAEA, Site Structure: Ningyo

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Ningyo-toge Environmental Engineering Center

Location: Kagamino Town, Okayama Pref.

License Holder(s) : Japan Atomic Energy Agency (JAEA)

The following list the waste management facilities that are located at this site.

Facility: UEP(R&D)

Description	R&D plant of uranium refining, conversion and enrichment. Front-end technologies of the nuclear fuel cycle had previously developed in this center. The facilities used for these activities are being dismantled.

Processing part of the "UEP(R&D)" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	, Phased

Storage part of the "UEP(R&D)" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	16,879 drums (3,376 m³)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
W/B x14	building	1979	No	No	No	No
Oil W/B x2	building	1980	No	No	No	No
DP W/B	building	1985	No	No	No	No

Comment #12120: Storage Units in JAEA::Ningyo-toge EEC

• W/B: Waste storage Bldg.
•Oil W/B: Oil Waste storage Bldg.
•DP W/B: Demonstration Plant Waste storage Bldg.

Reporting Group JAEA, Site Data: Ningyo

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Ningyo-toge Environmental Engineering Center

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	3000	0	100	0	0	0	0	0	No

Comment #12181: Waste Inventory in JAEA::Ningyo EEC

• 14,968 drums (200L equivalent).
(reported volume in m^3) = (number of drums rounded to nearest 100) x 0.2

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination		Yes		
Incineration			same	

Reporting Group JAEA, Site Structure: Oarai

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Oarai Research and Development Center

Location: Oarai Town, Ibaraki Pref.

License Holder(s) : Japan Atomic Energy Agency (JAEA)

The following list the waste management facilities that are located at this site.

Facility: RWM

Description	Radioactive Waste Management facility; Waste processing and storage of generated from both in-site and other generator's sites have been carried out in this facility.

Processing part of the "RWM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "RWM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	42,795 drums (8,559 m³) for solid				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS-I	building	1972	No	No	No	No
SWS-alpha	building	1975	No	No	No	No
SWS-II	building	1979	No	No	No	No
SWS-III	building	1989	No	Yes	No	No
SWS-IV	building	2002	No	No	No	No

Comment #12123: Storage Units in JAEA::Oarai::RWM

•SWS: Solid Waste Storage bldg.

Reporting Group JAEA, Site Data: Oarai

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Oarai Research and Development Center

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	5540	0	0	11.6	88.4	0	0	0	Yes

Comment #12184: Distribution% estimation of LLW of JAEA::Oarai

Waste volume used for distribution% of RP (reprocessing) estimation includes those are similar in radioactive nuclide composition (especially TRU).

Comment #12185: Waste Inventory in JAEA::Oarai

Total LLW: 27,700 drums;
•RP: 3,200 drums (11.6%)
•NA (nuclear application): 24,500 drums (88.4%)

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Compaction			same	
Evaporation			same	
Incineration			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	

Reporting Group JAEA, Site Structure: Tokai

Country: Japan Reporting Year: 2006

Full Name:	JAEA:: Tokai Research and Development Center - Nuclear Fuel Cycle Engineering Laboratories - Nuclear Science Research Institute
Location:	Tokai Vil., Ibaraki Pref.
License Holder(s) :	Japan Atomic Energy Agency (JAEA)

Comment #12169: JAEA Tokai R&D Center

The Tokai R&D Center (a NEWMDB site) consists from the NSRI and NFCEL. The NFCEL has two major centers: the Reprocessing Technology Development Center (Rep.DC), and the Plutonium Fuel Technology Development Center (Pu-Fuel DC). These centers are reported separately from NFCEL in order to avoid complexity in storage units reporting (waste storage part of each facility).

The following list the waste management facilities that are located at this site.

Facility: NFCEL

Description	NFCEL - Nuclear Fuel Cycle Engineering Laboratories

Processing part of the "NFCEL" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "NFCEL" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	56,400 drums (11,280 m³) for solid (UW) 762 drums (152.4 m³) for solid (CPF)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WS/B-1	building	1973	No	No	No	No
WS/B-2	building	1975	No	No	No	No
WS/B-3	building	1975	No	No	No	No
WS/B-4	building	1977	No	No	No	No
WS/B-5	building	1977	No	No	No	No
WS/B-6	building	1981	No	No	No	No
UW S/B	building	1983	No	No	No	No
UW S/B-2	building	2003	No	No	No	No
Oil U/B	building	1976	No	No	No	No
CPF	building	1979	No	No	No	No

Comment #12119: Storage Units in NFCEL

• WS/B: Waste Storage Bldg.
•UW S/B: Uranium Waste Storage Bldg.

•Oil W/B: Oil Waste Bldg. (for uranium contaminated oil)
•CPF: Chemical Processing Facility

Facility: NSRI

Description	NSRI - Nuclear Science Research Institute Research reactors, accelerators and laboratories; Treatment and storage of radioactive wastes originated from both in-site and other generator's sites have been carried out in this site.

Processing part of the "NSRI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "NSRI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	139,350 drums (27,870 m³) for solid				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WS1(M-1)	pit	1962	No	Yes	No	No
WS1(M-2)	pit	1962	No	No	No	No
WS1(L)	pit	1965	No	Yes	No	No
WS1(WSR/B)	building	1998	No	No	No	No
WS2(NL)	pit	1986	No	Yes	No	No
WS2(I)	building	1980	No	Yes	No	No
WS2(II)	building	1990	No	Yes	No	No

Comment #12124: Storage Units in NSRI

- WS1(M-1): Waste Storage Facility No.1 Waste storage facility M-1
- WS1(M-2): Waste Storage Facility No.1 Waste storage facility M-2
- WS1(L): Waste Storage Facility No.1 Waste storage facility L
- WS1(WSR/B): Waste Storage Facility No.1 Waste Size Reduction and Storage facilities
- WS2(NL): Waste Storage Facility No.2 Waste storage building (NL)
- WS2(I): Waste Storage Facility No.2 Waste building 1
- WS2(II): Waste Storage Facility No.2 Waste building 2

Facility: Pu-fuel DC

Description	Plutonium Fuel Technology Development Center: department of the Nuclear fuel Cycle Engineering Laboratories (NFCEL)

Processing part of the "Pu-fuel DC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "Pu-fuel DC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	36,000 drums (7,200 m³)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PWSF	building	1981	No	No	No	No
PWSF-2	building	1999	No	No	No	No

Comment #12118: Storage Units in JAEA::Tokai::FFP(MOX)

•PWSF: Plutonium Waste Storage Facility

Facility: REP.DC

Description	Reprocessing Technology Development Center: department of the Nuclear fuel Cycle Engineering Laboratories (NFCEL)

Processing part of the "REP.DC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	Yes	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "REP.DC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	Yes	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Capacity	870 m³ for Liquid HLW, 420 canisters for Vitrified HLW, 10,320 drums (2,064 m³) for High Radioactive Solid waste, 92,140 drums (18,428 m³) for Low Radioactive Solid waste, 7,540 m³ for Low Radioactive Liquid waste

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
HLW(liq.)	tank (stainless steel)	1977	No	No	No	No
Sludge/B	tank (stainless steel)	1977	No	No	No	No
Sludge/B-2	tank (stainless steel)	1981	No	No	No	No
Solvent/B	tank (stainless steel)	1981	No	No	No	No
HRS/B	building	1977	No	No	No	No
HRS/B-2	building	1990	No	No	No	No
LRS/B-1	building	1985	No	No	No	No
LRS/B-2	building	1979	No	No	No	No
TVF(VHLW)	pit	1994	No	No	No	No
AsphaltSB	building	1982	No	No	No	No
AsphaltSB2	building	1989	No	No	No	No

Comment #12117: Storage Units in JAEA::Tokai::REP

•HRS/B: High Radioactive Solid Waste Storage Bldg.
•LRS/B: Low Radioactive Solid Waste Storage Bldg.
•TVF: Tokai Vitrification Facility
•AsphaltSB : Asphalt(Bituminized) Waste Storage Bldg.

The HRS/Bldgs have both pool cells and dry cells. Hulls and end pieces of the fuel are stored in the pool cells.

Reporting Group JAEA, Site Data: Tokai

Country: Japan Reporting Year: 2006

Full Name: JAEA::
Tokai Research and Development Center
- Nuclear Fuel Cycle Engineering Laboratories
- Nuclear Science Research Institute

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
HLW	Storage	No	414	0	0	100	0	0	0	0	No
HLW	Storage	Yes	29	0	0	100	0	0	0	0	No

Comment #12186: HLW Inventory in JAEA::Toaki

• 241 vitrified waste canister (120L) stored in the TVF.
• 414 m³ of liquid HLW is reported as unprocessed volume.

Class	Location	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	55420	0	12.5	43.5	44	0	0	0	Yes

Comment #12187: Distribution% estimation of LLW of JAEA::Tokai

Waste volume used for distribution% of RP (reprocessing) estimation includes those from reprocessing plant and those are similar in radioactive nuclide composition (especially TRU). Waste volume used for distribution% of FF/FE (fuel fabrication / fuel enrichment) estimation includes uranium waste generated from R&D activities for FF/FE.

Comment #12188: LLW inventory in JAEA::Tokai

Total LLW: 277,100 drums;
•RP: 120,600 drums (43.5%), of which 81,400 (reprocessing), 28,100 (MOX FF), 11,100 (misc.)
•FF/FE: 34,700 drums (12.5%) - contaminated by uranium
•NA (nuclear application): 121,800 drums (44.0%)

Of 81,400 drums stored in the reprocessing plant, 29,967 drums (bituminization) and 1,812 (polymerization) are conditioned waste packages.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Compaction	Yes			
Decontamination			same	
Evaporation			same	
Incineration			same	
Ion Exchange			same	
Segregation/Sorting			same	
Shredding			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Casting (of metal and slag)	Yes			
Cementation			same	
Grouting	Yes			
Polymerization			same	
Vitrification			same	

Reporting Group JAEA, Site Structure: Tsuruga

Country: Japan Reporting Year: 2006

Full Name:	JAEA Tsuruga Head Office:: - Reactor Decommissioning Development Center (Fugen) - Fast Breeder Reactor Research and Development Center (Monju)
Location:	Tsuruga City, Fukui Pref.
License Holder(s) :	Japan Atomic Energy Agency (JAEA) Note: Each center has respective license for reactor installation/operation and site. These two centers are rolled-up to a “Tsuruga” site for reporting convenience.

Comment #12170: Fugen

The Fugen Nuclear Power Station will be reformed to “Reactor Decommissioning Development Center” after the decommissioning plan is approved by authority.

The following list the waste management facilities that are located at this site.

Facility: Fugen

Description	Fugen ATR (Advanced Thermal Reactor,165MWe) ceased commercial operation on 2003.03 ‡ The Fugen Nuclear Power Station will be reformed to “Reactor Decommissioning Development Center” after the decommissioning program is approved by authority.

Processing part of the "Fugen" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "Fugen" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	21,500 drums (4,300 m³) for SWSF				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-1	building	1978	No	No	No	No
SWS/B-2	building	1985	No	No	No	No

Comment #12122: Storage Units in JAEA::Fugen

•SWS/B: Solid Waste Storage Bldg.
Reactor unit (RU) has enough storage capacity for operational waste such as tanks for resin used reactor water cleanup. Core components and reactor internals are kept in pools of each unit. Low-level radioactive solid wastes are stored in the Solid Waste Storage facility (SWS/Bldgs).

Reporting Group JAEA, Site Structure: Tsuruga

Country: Japan — Reporting Year: 2006

Facility: Monju

Description	Fast Breeder Reactor Research and Development Center (Monju)

Processing part of the "Monju" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "Monju" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	23,000 drums (4,600 m^3) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	1993	No	No	No	No
SWS pool	pool	1997	No	No	No	No

Comment #12121: Storage Units in JAEA::Monju

•SWS/B: Solid Waste Storage Bldg.
Low-level radioactive solid wastes are stored in the Solid Waste Storage facility (SWS/Bldg).
Core components and reactor internals are kept in solid waste storage pool in the Maintenance and waste disposal building (build in 1997).

Reporting Group JAEA, Site Data: Tsuruga

Country: Japan Reporting Year: 2006

Full Name: JAEA Tsuruga Head Office::
- Reactor Decommissioning Development Center (Fugen)
- Fast Breeder Reactor Research and Development Center (Monju)

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage Fugen	No	3860	93.7	0	0	6.3	0	0	0	No
LLW	Storage Monju	No	680	100	0	0	0	0	0	0	No

Comment #12182: Waste Inventory in Fugen

• 19,252 drums (200L equivalent) in SWS/B, of which 2,016 are conditioned (bituminization).
(reported volume in m³) = (number of drums rounded to nearest 100) x 0.2
waste of % of nuclear applications generated from heavy water purification, which is radioisotope waste.

Comment #12183: Waste Inventory in Monju

• 3,380 drums (200L equivalent) in SWS/B, of which 20 are conditioned (polymerization).
(reported volume in m³) = (number of drums rounded to nearest 100) x 0.2

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Compaction	Yes			
Decontamination	Yes			
Evaporation			same	
Incineration			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			intermittent	
Cementation	Yes			
Grouting	Yes			
Polymerization			suspended	

Reporting Group JNFL, Site Structure: Rokkasho

Country: Japan Reporting Year: 2006

Full Name: Japan Nuclear Fuel Limited ::
- Uranium Enrichment Plant
(- Low-Level Radioactive Waste Disposal Center) -> see "disposal" reporting group
- Vitrified Waste Storage Center
- Reprocessing Plant

Location: Rokkasho Vil., Aomori Pref.

License Holder(s) : Japan Nuclear Fuel Limited (JNFL)

Comment #9749: Uranium Enrichment Plant

• 1,050 tSWU/y

Comment #9751: Vitrified Waste Storage Center

Utilities in Japan have concluded reprocessing contracts with British and French companies for a total of 5,600 t U of spent fuel from light water reactors and 1,500 t U of spent fuel from a gas cooled reactor. In accordance with these contracts, vitrified waste canisters are returned to the utilities and are stored by JNFL.

Comment #9752: Reprocessing Plant

• 800 tU/y (Under Construction)
The Reprocessing Plant is now under final commissioning test. The spent fuel storage building, which has 3,000 tU storage capacity with three wet-pools, have already been in service operation. Spent fuels from NPP sites have been received and stored since 2000.

Comment #9753: MOX fuel Fabrication Plant (future facility)

(out of NEWMDB submission scope)
A license application for fuel fabrication (MOX fuel 130 tHM/y) business has submitted in 2005. The construction of the plant is scheduled to start in 2007 and completed in 2012.

The following list the waste management facilities that are located at this site.

Facility: REP

Description	Reprocessing Plant; radioactive waste management (RWM) associated with Spent Fuel Reprocessing

Processing part of the "REP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	Yes	LLW	No	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Unknown

Storage part of the "REP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	Yes	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Capacity	70,500 drums (14,100 m³) for solid waste 850 m³ for resin waste 2,000 drums (400 m³) for hull/end pieces

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LRW/B-1	building	1999	No	No	No	No

LRW/B-1	building	[illegible]	No	No	No	No
Resin (1)	tank (stainless steel)	1999	No	No	No	No
LRW/B-2	building	2004	No	No	No	No
Hull/EndPs	building	2006	No	No	No	No
CB/BP	building	2006	No	No	No	No
Resin (2)	tank (stainless steel)	2006	No	No	No	No

Comment #9755: Storage Units in JNFL::REP

•LRW/B-1: Low Radioactive Waste storage building-1 (for SF storage)
•Resin (1): resin waste tanks in the spent fuel receiving and storage building
•LRW/B-2: Low Radioactive Waste storage building-2 (for Reprocessing)
•Hull/EndP: storage for Hull/End Pieces
•CB/BP: storage for CB and BP
•Resin (2): resin waste tanks of reprocessing

Facility: UEP

Description	Uranium Enrichment Plant; radioactive waste management (RWM) associated with Uranium enrichment

Storage part of the "UEP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			

List SRS?	No
Capacity	6,700 drums (1,340 m³)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
UEW/B	building	1992	No	No	No	No
U&W S/B	building	2002	No	No	No	No

Comment #9748: Storage Units in JNFL::UEP

•UEW/B: Uranium Enrichment Waste Bldg.
•U&W S/B: Uranium and Waste Storage Bldg.

Reporting Group JNFL, Site Structure: Rokkasho

Country: Japan Reporting Year: 2006

Facility: VWSC

Description	Vitrified Waste Storage Center; Storage facility of Vitrified Waste returned from Overseas

Storage part of the "VWSC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	Yes	LLW	Yes	Yes
SRS	No	No			

List SRS?	No
Capacity	1,440 dry storage pits for Vitrified HLW packages 1,200 drums (240 m³)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS	building	1995	No	No	No	No
VHLW S/B	pit	1995	No	No	No	No

Comment #9754: Storage Units in JNFL::VWSC

Currently, the center has a storage capacity of 1,440 canisters of Vitrified HLW. The additional vitrified HLW storage building, which will have same capacity of 1,440 canisters, is under construction since June 2004 and will be completed in 2009. This means that total storage capacity will be increased to 2,880 canisters.

•SWS: solid waste storage room, located in Vitrified Waste Receiving Building
•VHLW S/B: Vitrified Waste Storage Building

Reporting Group JNFL, Site Data: Rokkasho

Country: Japan Reporting Year: 2006

Full Name: Japan Nuclear Fuel Limited ::
- Uranium Enrichment Plant
(- Low-Level Radioactive Waste Disposal Center) -> see "disposal" reporting group
- Vitrified Waste Storage Center
- Reprocessing Plant

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
HLW	Storage VWSC Solid	Yes	197.2	0	0	100	0	0	0	0	No

Comment #9876: HLW inventory in JNFL::Rokkasho

1,160 vitrified waste canisters (170L) have stored in the storage pits of VWSC. No vitrified waste has produced in the reprocessing plant.

Note: Since the start of storage operation, 1,310 vitrified waste canisters have returned from France, of which 150 is pending for inspection prior to storage at the reporting date and those volume will be reported at the next NEWMDB cycle.

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	4305.2	0	20.7	79.3	0	0	0	0	No

Comment #9877: LLW inventory in JNFL::Rokkasho

Total LLW: 21,221 drums (200L) + 61 drums (1,000L)
•RP: 16,765 drums (200L) + 61 drums (1,000L). (sum of reprocessing plant and VWSC)
•FF/FE: 4,456 drums in uranium enrichment plant.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Compaction	Yes			
Evaporation	Yes			
Filtration			same	
Incineration	Yes			
Shredding	Yes			

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	Yes			
Vitrification	Yes			

Reporting Group JRIA, Site Structure: RIWM

Country: Japan Reporting Year: 2006

Full Name: JRIA's radioisotope waste management sites

Location: Takizawa Vil., Iwate Pref. / others

License Holder(s) : Japan Radioisotope Association (JRIA)

Comment #6940: Activities of JRIA

The Japan Radioisotope Association is engaged in activities concerning stable supply of various kinds of radioisotopes for research, industrial and medical uses, and collection and treatment of radioisotope wastes. The waste collection system consists of some separate sites, however, all sites of JRIA are abstracted to one site for the convenience of the NEWMDB reporting.

Comment #9890: Waste Management in JRIA::RIWM

Among various radioisotope waste, "medical RI waste" is treated and stored in the Takizawa Laboratory. Another "research RI waste" is stored in other associated sites such as relay stations constituting country-wide waste collection system of JRIA.

The following list the waste management facilities that are located at this site.

Facility: RWM(RI)

Description	JRIA's radioisotope waste management facilities throughout Japan

Processing part of the "RWM(RI)" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	, Phased

Storage part of the "RWM(RI)" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	Total 181,100 drums (36,220 m³)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Takizawa	building	1987	No	No	No	No
Kanto S/F	building	1966	No	No	No	No
Kanto WRS	building	1979	No	No	No	No
Kanto WRS2	building	1983	No	No	No	No
Ichihara	building	2000	No	No	No	No
Kansai WRS	building	2002	No	No	No	No

Comment #7103: JRIA radioisotope waste storage facilities

facilities and licenced year (fiscal)
- Kanto S/F (Kanto Storage Facility): Tokai Vil., Ibaraki Pref.(1966)
- Kanto WRS (Kanto Waste Relay Station): Kashiwa City, Chiba Pref.(1979)
- Kanto WRS2 (Kanto Waste Relay Station II): Kashiwa City, Chiba Pref.(1983)
- Takizawa (Kaya memorial Takizawa laboratory): Takizawa Vil., Iwate Pref.(1985)

• Ichihara Office: Ichihara City, Chiba Pref. (2000)
• Kansai WRS (Kansai Waste Relay Station): Daito City, Osaka Pref.(2002)

Comment #12154: Storage Capacity

Takizawa: 22,400 drums (4,480 m^3), Kanto S/F: 5,900 drums (1,180 m^3), Kanto WRS: 45,600drums (9,120m^3), Kanto WRS2: 22,000drums (4,400m^3), Ichihara: 83,600drums (16,720 m^3), Kansai WRS: 1,600 drums (320 m^3)

Reporting Group JRIA, Site Data: RIWM

Country: Japan Reporting Year: 2006

Full Name: JRIA's radioisotope waste management sites

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	23320	0	0	0	100	0	0	0	No

Comment #12179: Waste Inventory in JRIA::RIWM

• 116,600 drums (200L equivalent)
A part of radioisotope (RI) waste collected by JRIA, which were processed and stored in JAEA's Tokai site, are excluded from the waste volume.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Incineration			same	
Segregation/Sorting			same	

Comment #9858: Waste Processing in JRIA::RIWM

Among various radioisotope waste, "medical RI waste" is treated and stored in the Takizawa Laboratory. Another "research RI waste" is stored in other associated sites such as relay stations constituting country-wide waste collection system of JRIA.

Reporting Group other, Site Structure: other

Country: Japan Reporting Year: 2006

Full Name: other waste generators/holders sites

Location: (each site)

License Holder(s) : (each waste generators/holders)

The following list the waste management facilities that are located at this site.

Facility: known

Description	This facility is only for reporting annually available waste inventory

Storage part of the "known" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			

List SRS?	No
Capacity	(sufficient capacity)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
known	building	0	No	No	No	No

Reporting Group other, Site Data: other

Country: Japan Reporting Year: 2006

Full Name: other waste generators/holders sites

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Waste Class	Status
LLW (in Storage)	Waste data available, will not be reported.

Comment #12194: Waste Inventory of small-generators

4,589 drums (200L) (known waste amount)
(reported volume in m^3) = (number of drums rounded to nearest 100) x 0.2

(NOTE: This RG will NOT be opened to the public. see comment #12189 of the "known" facility in the "other" site.)

Reporting Group U Fuel Fab, Site Structure: All FFP

Country: Japan | Reporting Year: 2006

Full Name: All nuclear (uranium) fuel fabrication facilities

Location: 5 sites

License Holder(s) :
- Global Nuclear Fuel - Japan Co., Ltd.
- Mitsubishi Nuclear Fuel Co., Ltd.
- Nuclear Fuel Industries, Ltd. (2 licences for fabrication in 2 sites)
- JCO Co., Ltd. (license of fabrication cancelled on March 2000)

The following list the waste management facilities that are located at this site.

Facility: all FFP

Description	all nuclear fuel fabrication facilities (5 sites)

Processing part of the "all FFP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	, Phased

Storage part of the "all FFP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	Total 58,160 drums (Solid Waste Storage Buildings in 5 fuel fabrication facilities)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	0	No	No	No	No

Reporting Group U Fuel Fab, Site Data: All FFP

Country: Japan Reporting Year: 2006

Full Name: All nuclear (uranium) fuel fabrication facilities

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	9080	0	100	0	0	0	0	0	No

Comment #12155: Waste Inventory in All FFPs

• 45,414 drums (200L equivalent)
(reported volume in m³) = (number of drums rounded to nearest 100) x 0.2

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Incineration			same	
Segregation/Sorting			intermittent	
Shredding			same	

Reporting Group U Fuel Fab, Site Structure: GNF-J

Country: Japan | Reporting Year: 2006

Full Name: Global Nuclear Fuel - Japan Co., Ltd. (GNF-J) :: Kurihama factory

Location: Yokosuka City, Kanagawa Pref.

License Holder(s) : Global Nuclear Fuel - Japan Co., Ltd. (GNF-J)

The following list the waste management facilities that are located at this site.

Facility: FFP

Description	Nuclear Fuel Fabrication Plant; radioactive waste management (RWM) associated with Fuel Fabrication

Storage part of the "FFP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	18,460 drums (equivalent to 4,779 m³) for solid				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
F/B-1	building	1975	No	No	No	No
WS/B-2	building	1981	No	No	No	No

Comment #12147: Storage Units in GNF-J

• WS/B: Waste Storage Bldg.
•F/B: Fabrication Bldg.

The uranium waste has been generated from fuel fabrication since 1970, however the former waste storage buildings are already pulled down.

Reporting Group U Fuel Fab, Site Structure: JCO

Country: Japan Reporting Year: 2006

Full Name: JCO :: Tokai plant

Location: Tokai Vil., Ibaraki Pref.

License Holder(s) : JCO Co., Ltd. (JCO)

Comment #12129: JCO Tokai plant

The conversion license was first granted to the SUMITOMO METAL MINING Co.,Ltd. In 1969, and the plant operation started in 1973. The Japan Nuclear Fuel Conversion Corporation was established in 1980, and took over the relevant facilities. The company name was altered to JCO in 1998. The license was cancelled on March 2000 after the critical accident occurred at September 30, 1999.

This site is identified by IAEA as a closed fuel fabrication plant.

The following list the waste management facilities that are located at this site.

Facility: FFP-closed

Description	Management of the waste from past fuel fabrication business (conversion) has been in practice.

Storage part of the "FFP-closed" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	12,100 drums (2,420 m³) for solid				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WS/B-1	building	1980	No	No	No	No
WS/B-2	building	1983	No	No	No	No
WS/B-3	building	1989	No	No	No	No
WS/B-4	building	1993	No	No	No	No
WS/B-5	building	2000	No	No	No	No
F/B-2	building	2000	No	No	No	No

Comment #12146: Storage Units in JCO::Tokai

- WS/B: Waste Storage Bldg.
- F/B: Factory Bldg.

Reporting Group U Fuel Fab, Site Structure: MNF

Country: Japan Reporting Year: 2006

Full Name: Mitsubishi Nuclear Fuel Co., Ltd. (MNF):: Tokai plant

Location: Tokai Vil., Ibaraki Pref.

License Holder(s) : Mitsubishi Nuclear Fuel Co., Ltd. (MNF)

The following list the waste management facilities that are located at this site.

Facility: FFP

Description	Nuclear Fuel Fabrication Plant; radioactive waste management (RWM) associated with Fuel Fabrication

Storage part of the "FFP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	11,600 drums (2,320 m³) for solid

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
F/B	building	1972	No	No	No	No
Equip S/B	building	1975	No	No	No	No
WS/B-1	building	1976	No	No	No	No
WS/B-2	building	1984	No	No	No	No
WS/B-3	building	1986	No	No	No	No

Comment #12148: Storage Units in MNF

•F/B: Factory Bldg.
•Equip S/B: Contaminated Equipment Storage Bldg.
• WS/B: Waste Storage Bldg.

Reporting Group U Fuel Fab, Site Structure: NFI Kumato

Country: Japan Reporting Year: 2006

Full Name: Nuclear Fuel Industries, Ltd. :: Kumatori Works

Location: Kumatori Town, Osaka Pref.

License Holder(s) : Nuclear Fuel Industries, Ltd. (NFI)

The following list the waste management facilities that are located at this site.

Facility: FFP

Description	Nuclear Fuel Fabrication Plant; radioactive waste management (RWM) associated with Fuel Fabrication

Storage part of the "FFP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	7,500 drums (1,500 m³) for solid

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WS/B-1	building	1976	No	No	No	No
WS/B-2	building	1976	No	No	No	No
WS/B-3	building	1983	No	No	No	No
FMWS/B	building	2002	No	No	No	No
F/B-1	building	2005	No	No	No	No

Comment #12149: Storage Units in NFI::Kumatori

• WS/B: Waste Storage Bldg.
•FMWS/B: Fuel Material and Waste Storage Bldg. for R&D
•F/B: Fabrication Bldg.

Reporting Group U Fuel Fab, Site Structure: NFI Tokai

Country: Japan Reporting Year: 2006

Full Name:	Nuclear Fuel Industries, Ltd. :: Tokai Works
Location:	Tokai Vil., Ibaraki Pref.
License Holder(s) :	Nuclear Fuel Industries, Ltd. (NFI)

The following list the waste management facilities that are located at this site.

Facility: FFP

Description	Nuclear Fuel Fabrication Plant; radioactive waste management (RWM) associated with Fuel Fabrication

Storage part of the "FFP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	8,500 drums (1,700 m³) for solid				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WS/B-I	building	1979	No	No	No	No
WS/B-II	building	1999	No	No	No	No

Comment #12150: Storage Units in NFI::Tokai

• WS/B: Waste Storage Bldg.

Reporting Group Utilities, Site Structure: All NPS

Country: Japan Reporting Year: 2006

Full Name: All Nuclear Power Stations

Location: 18 sites

License Holder(s) : 9 EPC + JAPC

The following list the waste management facilities that are located at this site.

Facility: all NPP

Description	all nuclear power reactor facilities

Processing part of the "all NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	, Phased

Storage part of the "all NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	Total 879,600 drums (Solid Waste Storage Buildings in 18 nuclear power stations)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	0	No	No	No	No

Reporting Group Utilities, Site Data: All NPS

Country: Japan Reporting Year: 2006

Full Name: All Nuclear Power Stations

Inventory Reporting Date: March 2007 Waste Matrix: JP

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	105900	100	0	0	0	0	0	0	No
LLW	Storage	Yes	10440	100	0	0	0	0	0	0	No

Comment #12134: Waste Inventory of ALL NPPs

Total 581,712 drums (in 200L equivalent) in SWS/B, of which 52,202 are disposal packages (reported as processed).
(reported volume in m³) = (number of drums rounded to nearest 100) x 0.2

Waste volume dose not include replaced control rods and channel boxes, etc. (kept as generated or shredded), spent ion exchange resins that are reserved in tanks, 29 replaced steam generators, and other waste items of a large-volume.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Evaporation			same	
Incineration			same	
Metal Melting			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	
Grouting			same	

Reporting Group Utilities, Site Structure: Fukushima1

Country: Japan Reporting Year: 2006

Full Name: Tokyo EPC ::
Fukushima Daiichi Nuclear Power Station

Location:

License Holder(s) : Tokyo Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	284,500 drums (56,900 m³) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-1	building	1971	No	No	No	No
SWS/B-2	building	1974	No	No	No	No
SWS/B-3	building	1976	No	No	No	No
SWS/B-4	building	1976	No	No	No	No
SWS/B-5	building	1977	No	No	No	No
SWS/B-6	building	1978	No	No	No	No
SWS/B-7	building	1981	No	No	No	No
SWS/B-8	building	1983	No	No	No	No
Bunker/B	bunker	1980	No	No	No	No
CentralWM	building	1984	No	No	No	No
AuxPool	pool	1997	No	No	No	No

Reporting Group Utilities, Site Structure: Fukushima2

Country: Japan Reporting Year: 2006

Full Name: Tokyo EPC ::
Fukushima Daini Nuclear Power Station

Location: Tomioka Town & Naraha Town, Fukushima Pref.

License Holder(s) : Tokyo Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	32,000 drums (6,400 m³) for SWS/B				

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	1981	No	No	No	No
Bunker/B	bunker	1988	No	No	No	No

Reporting Group Utilities, Site Structure: Genkai

Country: Japan Reporting Year: 2006

Full Name:	Kyushu EPC :: Genkai Nuclear Power Station
Location:	Genkai Town, Saga Pref.
License Holder(s) :	Kyushu Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	49,000 drums (9,800 m³) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-1	building	1975	No	No	No	No
SWS/B-2	building	1981	No	No	No	No
SWS/B-3	building	1994	No	No	No	No
SGS/B	building	1994	No	No	No	No
SWS/B-4	building	2005	No	No	No	No

Reporting Group Utilities, Site Structure: Hamaoka

Country: Japan Reporting Year: 2006

Full Name: Chubu EPC :: Hamaoka Nuclear Power Station

Location: Omaezaki City, Shizuoka Pref.

License Holder(s) : Chubu Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	42,000 drums (8,400 m³) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-1	building	1975	No	No	No	No
SWS/B-2	building	1978	No	No	No	No
RW/B-1	bunker	1981	No	No	No	No

Reporting Group Utilities, Site Structure: Higashidor

Country: Japan Reporting Year: 2006

Full Name: Tohoku EPC ::
Higashidori Nuclear Power Station

Location: Higashidori Vil., Aomori Pref.

License Holder(s) : Tohoku Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	9,000 drums (1,800 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	2004	No	No	No	No

Reporting Group Utilities, Site Structure: Ikata

Country: Japan Reporting Year: 2006

Full Name: Shikoku EPC ::
Ikata Nuclear Power Station

Location: Ikata Town, Ehime Pref.

License Holder(s) : Shikoku Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	38,500 drums (7,700 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-1	building	1977	No	No	No	No
SWS/B-2	building	1994	No	No	No	No
SGS/B	building	1998	No	No	No	No

Reporting Group Utilities, Site Structure: Kashiwazak

Country: Japan Reporting Year: 2006

Full Name:	Tokyo EPC :: Kashiwazaki Kariwa Nuclear Power Station
Location:	Kashiwazaki City & Kariwa Vil., Niigata Pref.
License Holder(s) :	Tokyo Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	30,000 drums (6,000 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	1984	No	No	No	No

Reporting Group Utilities, Site Structure: Mihama

Country: Japan Reporting Year: 2006

Full Name: Kansai EPC ::
Mihama Nuclear Power Station

Location: Mihama Town, Fukui Pref.

License Holder(s) : The Kansai Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	35,000 drums (7,000 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-1	building	1970	No	No	No	No
SWS/B-2	building	1973	No	No	No	No
SWS/B-3	building	1975	No	No	No	No
SWS/B-4	building	1980	No	No	No	No
SGS/B-1	building	1993	No	No	No	No
SGS/B-2	building	1995	No	No	No	No

Reporting Group Utilities, Site Structure: Ohi

Country: Japan Reporting Year: 2006

Full Name: Kansai EPC ::
Ohi Nuclear Power Station

Location: Ohi Town, Fukui Pref.

License Holder(s) : The Kansai Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	38,900 drums (7,780 m³) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-A	building	1977	No	No	No	No
SWS/B-B	building	1977	No	No	No	No
SWS/B-C	building	1986	No	No	No	No
SGS/B-A	building	1994	No	No	No	No
SGS/B-B	building	1996	No	No	No	No
SGS/B-B	building	1996	No	No	No	No

Reporting Group Utilities, Site Structure: Onagawa

Country: Japan Reporting Year: 2006

Full Name: Tohoku EPC ::
Onagawa Nuclear Power Station

Location: Onagawa Town & Ishinomaki City, Miyagi Pref.

License Holder(s) : Tohoku Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	30,000 drums (6,000 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B(A)	building	1983	No	No	No	No
SWS/B(B)	building	1994	No	No	No	No
SWS/B(C)	building	1999	No	No	No	No
Bunker/B	building	1993	No	No	No	No

Reporting Group Utilities, Site Structure: Sendai

Country: Japan Reporting Year: 2006

Full Name:	Kyushu EPC :: Sendai Nuclear Power Station
Location:	Satsumasendai City, Kagoshima Pref.
License Holder(s) :	Kyushu Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	17,000 drums (3,400 m³) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	1984	No	No	No	No

Reporting Group Utilities, Site Structure: Shika

Country: Japan Reporting Year: 2006

Full Name: Hokuriku EPC ::
Shika Nuclear Power Station

Location: Shika Town, Ishikawa Pref.

License Holder(s) : Hokuriku Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	10,000 drums (2,000 m³) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-1	building	1993	No	No	No	No
SWS/B-2	building	2005	No	No	No	No

Reporting Group Utilities, Site Structure: Shimane

Country: Japan Reporting Year: 2006

Full Name: Chugoku EPC ::
Shimane Nuciear Power Station

Location: Matsue City, Shimane Pref.

License Holder(s) : The Chugoku Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	35,500 drums (7,100 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-A	building	1973	No	No	No	No
SWS/B-B	building	1976	No	No	No	No
SWS/B-C	building	1981	No	No	No	No
Bunker/B	bunker	1984	No	No	No	No

Reporting Group Utilities, Site Structure: Takahama

Country: Japan Reporting Year: 2006

Full Name:	Kansai EPC :: Takahama Nuclear Power Station
Location:	Takahama Town, Fukui Pref.
License Holder(s) :	The Kansai Electric Power Co., Inc.

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	50,600 drums (10,120 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-A	building	1974	No	No	No	No
SWS/B-B	building	1974	No	No	No	No
SWS/B-C	building	1979	No	No	No	No
SWS/B-D	building	1983	No	No	No	No
SGS/B-A	building	1994	No	No	No	No
SGS/B-B	building	1995	No	No	No	No
ResinS/B	building	1975	No	No	No	No

Reporting Group Utilities, Site Structure: Tokai

Country: Japan | Reporting Year: 2006

Full Name: JAPC ::
Tokai Power Station & Tokai Daini Power Station

Location: Tokai Vil., Ibaraki Pref

License Holder(s) : The Japan Atomic Power Co., Inc. (JAPC)

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	1,600 drums (320 m³) for SWSF (of Tokai NPS) 73,000 drums (14,600 m³) for SWSF (of Tokai-2 NPS)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Drum S/B	building	1966	No	No	No	No
SWS/B-A	building	1978	No	No	No	No
SWS/B-B	building	1982	No	No	No	No
RW/B	building	1982	No	No	No	No
Bunker-GCR	bunker	1986	No	No	No	No

Reporting Group Utilities, Site Structure: Tomari

Country: Japan Reporting Year: 2006

Full Name: Hokkaido EPC ::
Tomari Nuclear Power Station

Location: Tomari Vil., Hokkaido

License Holder(s) : Hokkaido Electric Power Co., Inc

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			

List SRS?	No
Capacity	18,000 drums (3,600 m³) for SWS/B

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B	building	1989	No	No	No	No

Reporting Group Utilities, Site Structure: Tsuruga

Country: Japan Reporting Year: 2006

Full Name: JAPC ::
Tsuruga Power Station

Location: Tsuriga City, Fukui Pref.

License Holder(s) : The Japan Atomic Power Co., Inc. (JAPC)

The following list the waste management facilities that are located at this site.

Facility: NPP

Description	radioactive waste management (RWM) associated with Nuclear Reactor Installation/Operation

Storage part of the "NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	LLW	No	No
SRS	No	No			
List SRS?	No				
Capacity	85,000 drums (17,000 m³) for SWS/B				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SWS/B-A	building	1976	No	No	No	No
SWS/B-B	building	1979	No	No	No	No
SWS/B-C	building	1985	No	No	No	No
Bunker/B	bunker	1987	No	No	No	No

REGULATORS

Country: Japan Reporting Year: 2006

Name	NISA/METI
Full Name	Nuclear and Industrial Safety Agency Ministry of Economy, Trade and Industry
Division	
City or Town	Tokyo

Comment #6967: Regulatory Functions

The Minister of METI, as the competent minister stipulated in the Reactor Regulation Law and the Electric Utilities Industry Law, governs the safety regulation over all activities on the utilization of nuclear energy including nuclear power generation, and NISA was established as a special organization of METI to administer the safety regulation.

NISA, under the Minister of METI, has the authority to issue a license for the establishment of a nuclear facility, after conducting safety examination that the siting, structure and equipment has no hindrance to the prevention of disasters. It also has the authority to cancel the license under certain circumstances such as violation of applicable laws and regulations by the license holder.

Name	STPB/MEXT
Full Name	Ministry of Education, Culture, Sports, Science and Technology
Division	Science and Technology Policy Bureau
City or Town	Tokyo

Comment #6968: Regulatory Functions

The safety regulation concerning the activities around the nuclear utilization from a scientific and technological aspect and the utilization of radioisotopes (excluding medicines, etc.) is governed by the Minister of MEXT as the competent minister, and is administered by the Science and Technology Policy Bureau (STPB).

With regard to the licensing of a new business under the Reactor Regulation Law and the radioisotope waste management business under the Radiation Hazards Prevention Law, the Minister of MEXT has the authority to issue the respective licenses, after conducting an examination of the site, structure and equipment from the standpoint of disaster prevention. He or she also has the authority to revoke the licenses under certain circumstances, such as the violation of applicable laws and regulations by the license holder.

Name	MHLW
Full Name	Ministry of Health, Labour and Welfare
Division	- Pharmaceutical and Food Safety Bureau - Health Policy Bureau
City or Town	Tokyo

Comment #6969: Regulatory Functions

The Ministry of Health, Labour and Welfare (MHLW) administers the safety regulations for radioactive medicines and the regulations for the protection against clinical radiation.

REGULATORS

Country: Japan Reporting Year: 2006

Name	NSC
Full Name	Nuclear Safety Commission Cabinet Office
Division	
City or Town	Tokyo

Comment #6970: Regulatory Functions

The Nuclear Safety Commission (NSC), which was established within the Cabinet Office under the Atomic Energy Basic Law, consists of five members who are appointed by the Prime Minister with the consent of the Diet. The chairperson is elected by the committee from among its members.

The NSC has duties of planning, deliberation and decisions on matters that are related to ensuring safety of the utilization of nuclear energy, and establishes guidelines to be used at the safety examination.

Name	JNES
Full Name	Japan Nuclear Energy Safety Organization (independent administrative institutions)
Division	
City or Town	Tokyo

Comment #6972: Regulatory Functions

A law for the establishment of an incorporated administrative agency, "Japan Nuclear Energy Safety Organization" as a technical support organization of NISA was approved in December 2002 by the Diet. The objectives of this organization, which is scheduled to be established in October 2003, is to provide a foundation for the nuclear safety preservation with regard to utilization of nuclear energy.

Name	NUSTEC
Full Name	Nuclear Safety Technology Center (non-governmental, delegated agency)
Division	
City or Town	Tokyo

Comment #6971: Regulatory Functions

As to the activities of the STPB related to the safety regulation for the nuclear facility, Nuclear Safety Technology Center (NUSTEC) is designated as an organization for welding inspections of the nuclear facility under the Reactor Regulation Law, periodic inspections of the facilities for radioisotope waste management business under the Radiation Hazards Prevention Law, etc.

REGULATIONS / LAWS

Country: Japan Reporting Year: 2006

Name	Act186/S30	
Title or Name	Atomic Energy Basic Act	
Reference Number	Act No.186 /S30(1955)	
Date Promulgated or Proclaimed	1955-12-19	Law

Name	Act179/H14	
Title or Name	Act on Japan Nuclear Energy Safety Organization	
Reference Number	Act No.179 /H14(2002)	
Date Promulgated or Proclaimed	2002-12-18	Law

Name	Act166/S32	
Title or Name	Act on the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors	
Reference Number	Act No.166 /S30(1957)	
Date Promulgated or Proclaimed	1957-06-10	Law

Name	Act167/S32	
Title or Name	Act on Prevention from Radiation Hazards due to Radioisotopes, etc.	
Reference Number	Act No.167 /S32(1957)	
Date Promulgated or Proclaimed	1957-06-10	Law

Name	Act117/H12	
Title or Name	Specified Radioactive Waste Final Disposal Act	
Reference Number	Act No.117 /H12(2000)	
Date Promulgated or Proclaimed	2000-06-07	Law

Comment #12190: Act117/H12

The term "Specified Radioactive Waste" as used in this Act (shall) means a vitrified substance remaining after the reprocessing of spent fuel.
«Article 2 of the Specified Radioactive Waste Final Disposal Act»

REGULATIONS / LAWS

Country: Japan Reporting Year: 2006

Name	Act048/H17	
Title or Name	Act on Deposit and Management of the Reserve Fund for Spent Fuel Reprocessing and so forth in the Nuclear Power Generation	
Reference Number	Act No.48 /H17(2005)	
Date Promulgated or Proclaimed	2005-05-20	Law

Country Waste Profile Report for
Korea, Republic of
Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

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Country Waste Profile Report for

Kuwait

Reporting year: 2006

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Report published on 2008-02-28 09:39:53

Waste Class Matrix(ces) Used/Defined

Country: Kuwait, State of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #127: waste classification in Kuwait

The IAEA Waste Classification System (Safety Guide 111-G-1.1) is adopted in Kuwait for future use. A new regulation (Ministerial Decree No. 553 for the year 2003) for disposal and storage of radioactive materials was passed on 11.11.2003 in which it is mentioned that the IAEA Waste Classification System was adopted for use in Kuwait.

Most radioactive waste generated in the country is Exempt Waste (EW) or treated (diluted) to below EW levels. Small amounts of LILW are generated, which includes spent/disused sealed sources. There are no HLW in Kuwait.

Depleted uranium waste (derived from the Gulf War in 1991) will be addressed in the future with the help of the IAEA. Spent radium needles/tubes from the Kuwait Cancer Control Centre (KCCC) were conditioned between 16-20 December 2002 by an expert team from the Republic of South Korea, authorized by the IAEA. This waste is now stored at the KCCC.

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Kuwait, State of

Reporting Year: 2006

Reporting Group: **RG-KUW**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Central Reporting Group in Kuwait. One Reporting Group in the Country situated in the Ministry of Health.

Site Name	Facility Name	Facilities Defined		
KCCC	KCCC		storage	
KUM	KUM		storage	
KUS	KUS		storage	

Reporting Group RG-KUW, Site Structure: KCCC

Country: Kuwait, State of Reporting Year: 2006

Full Name: Kuwait Cancer Control Centre

Location: Shuwaikh, Kuwait

License Holder(s) : Mrs. Asha Jacob
Tel: (00965) 4849100 Ext. 5612
email: joyjohnkw@yahoo.com

The following list the waste management facilities that are located at this site.

Facility: KCCC

Description	Two areas are used for radioactive waste storage: Ward No. 2 and the Basement Store The SRS stored consist of Ra-226 needles and tubes, Cs-137 (in old irradiator for radiotherapy), and Am-Be Spent Neutron sources

Storage part of the "KCCC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	No			
List SRS?	Yes				

Capacity	Sufficient capacity for 15 years is available.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Ward 2	building	1989	No	No	No	No
Basement	building	1982	No	No	No	Yes

Reporting Group RG-KUW, Site Data: KCCC

Country: Kuwait, State of Reporting Year: 2006

Full Name: Kuwait Cancer Control Centre

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage KCCC	No	2	0	0	0	100	0	0	0	No
LILW-LL	Storage KCCC	No	1	0	0	0	100	0	0	0	No

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Cs-137	47			No	Yes	4	2.43E+01	1977.12
	2.43E+01							
Cs-137		1		No	Yes	2	1.45E+03	1964.12
		1.45E+03						

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Am-241 Neutron Gen.		2	No	Yes	0	4.23E+00	1974.11
		4.23E+00					
Ra-226	465		Yes	No	4	5.48E+01	
	5.48E+01						

Reporting Group RG-KUW, Site Structure: KUM

Country: Kuwait, State of Reporting Year: 2006

Full Name: Faculty of Medicine, University of Kuwait

Location: Jabriya, Kuwait

License Holder(s) : Mr. Mohammed Sagr
Tel: (00965) 5312300 Ext. 6409
email: mohsak@yahoo.com

The following list the waste management facilities that are located at this site.

Facility: KUM

Description	Solution of H-3 and C-14 stored

Storage part of the "KUM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	Sufficient capacity for 10 years is available.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Laboratory	building	1999	No	No	No	No

Reporting Group RG-KUW, Site Data: KUM

Country: Kuwait, State of Reporting Year: 2006

Full Name: Faculty of Medicine, University of Kuwait

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage KUM	No	0.01	0	0	0	100	0	0	0	No
LILW-LL	Storage KUM	No	0.01	0	0	0	100	0	0	0	No

Reporting Group RG-KUW, Site Structure: KUS

Country: Kuwait, State of Reporting Year: 2006

Full Name:	Faculty of Science, University of Kuwait
Location:	Khaldiya, Kuwait
License Holder(s) :	Mr. Tiruvachi Natarajan Nageswaran Tel: (965) 4811188 Ext. 7291 email: nagesh@kuc01.kuniv.edu.kw

The following list the waste management facilities that are located at this site.

Facility: KUS

Description	Solution of H-3 and C-14 stored temporary

Storage part of the "KUS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	Sufficient capacity for 10 years is available.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Store	building	2000	No	No	No	No

Reporting Group RG-KUW, Site Data: KUS

Country: Kuwait, State of Reporting Year: 2006

Full Name: Faculty of Science, University of Kuwait

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage KUS	No	0.003	0	0	0	100	0	0	0	No
LILW-LL	Storage KUS	No	0.001	0	0	0	100	0	0	0	No

REGULATORS

Country: Kuwait, State of

Reporting Year: 2006

Name	MOH
Full Name	Minister of Health
Division	Radiation Protection Committee
City or Town	Kuwait

Name	AMIRI
Full Name	His Highness the Amir
Division	
City or Town	Kuwait

REGULATIONS / LAWS

Country: Kuwait, State of Reporting Year: 2006

Name	MD324/2001	
Title or Name	Ministerial Decree (324) of 2001	
Reference Number	MD-324 /2001	
Date Promulgated or Proclaimed	2001-02-28	Regulation

Name	DecLaw62	
Title or Name	Amiri Decree: Decree Law No.62 for the year 1980 Regarding Protection of the Environment & the General Policy for the Environment Protection	
Reference Number	Decree Law No. 62/1980	
Date Promulgated or Proclaimed	1980-12-31	Law

Name	MD553/2003	
Title or Name	Ministerial Decree (553) of 2003	
Reference Number	MD-553/2003	
Date Promulgated or Proclaimed	2003-11-11	Regulation

MILESTONES

Country: Kuwait, State of Reporting Year: 2006

Start Year or Reference Year:	2002	End Year	
Description of Milestone			
Between 16-20 December, 2002, an expert team (3 members) from the Republic of South Korea, authorized by the IAEA, carried out the conditioning operation of 465 Ra-226 spent sealed sources (294 needles, 166 tubes & 5 special shaped sources) held at Kuwait Cancer Control Centre (KCCC). As a result of the conditioning operation, 1,479.47 mg (54.75 GBq) of radium sources were conditioned in three packages. The conditioning was carried out with the co-operation of staff members from Radiation Protection Department, Ministry of Health, Kuwait, under the supervision of IAEA Technical Officer.			

Policies

Country: Kuwait, State of Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	No
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	No
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

Policies

Country: Kuwait, State of **National Systems** Reporting Year: 2006

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	No
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	No
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	No
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	No
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	No

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	No
41	Environmental Impact Statement (EIS)	No
42	Performance Assessment (PA)	No
43	Quality Assurance (QA)	No
44	Safety Assessment (SA)	No

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	Yes
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

Policies

Country: Kuwait, State of **Spent SRS** Reporting Year: 2006

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	Yes

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

Policies

Country: Kuwait, State of | **Decommissioning** | Reporting Year: 2006

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	No

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Luxembourg

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

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Country Waste Profile Report for

Mexico

Reporting year: 2006

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Report published on 2008-03-04 10:27:48

Waste Class Matrix(ces) Used/Defined

Country: Mexico (United Mexican States) Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: NOM-4-NUCL

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
NB A	100	0	0
NB B	100	0	0
NB C	100	0	0
INTERMEDIO	0	100	0
ALTO NIVEL	0	0	100

Description: Mexican Official Norm NOM-004-NUCL-1994 Classification of Radioactive Waste

Attachment #1317: Description of Mexican classification and discussion of the relation with IAEA´s scheme

File name: DESCRIPTION OF CLASSIFICATION.pdf

File type: PDF Document

Member State's Reference # MEX DESCRIPTION AND DISCUSSION

Definition of «unprocessed waste» and «processed waste»:

Undefined

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Mexico (United Mexican States) Reporting Year: 2006

Reporting Group: **CFE-CLV**

Inventory Reporting Date: December 2006

Waste Matrix Used: NOM-4-NUCL

Description: Comision Federal de electricidad, Central Laguna Verde

Site Name	Facility Name	Facilities Defined		
CLV	TPCLV	processing		
	ATS		storage	
	CLVACG1		storage	
	CLVACG2		storage	
	DDRSS		storage	

Reporting Group: **ININ**

Inventory Reporting Date: December 2006

Waste Matrix Used: NOM-4-NUCL

Description: Instituto Nacional de Investigaciones Nucleares (Nuclear Research National Institute)

Site Name	Facility Name	Facilities Defined		
ININ-CADER	CADER		storage	
	CADER(T)		storage	
ININ-CN	PATRADER	processing		
PIEDRERA	PIEDRERA			disposal

Reporting Group: **SENER**

Inventory Reporting Date: December 2006

Waste Matrix Used: NOM-4-NUCL

Description: Secretaria de Energía (Energy Secretariat)

Site Name	Facility Name	Facilities Defined		
ADDER	ADDER			disposal

Reporting Group CFE-CLV, Site Structure: CLV

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name: Central Laguna Verde (Laguna Verde Nuclear Power Plant)

Location: Km. 46.5, carreter federal 180, Alto Lucero, Veracruz

License Holder(s) : Comision Federal de Electricidad (Electricity Federal Commission)
Km. 46.5, carreter federal 180, Alto Lucero, Veracruz

The following list the waste management facilities that are located at this site.

Facility: TPCLV

Description	In Plant Radioactive Waste Treatment, Central Laguna Verde

Facility: ATS

Description	In site Radioactive Waste Storage (wet radioactive waste storage)

Storage part of the "ATS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	Yes	Yes	NB B	No	No
NB C	No	No	INTERMEDIO	No	No
ALTO NIVEL	No	No			
SRS	No	No			
List SRS?	No				

Capacity	ATS has a remaining capacity of 225.6 cubic meters.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ATS	bunker	1989	No	No	Yes	No

Comment #7283: Raised capacity

Capacity declared for ATS, takes into account in process layout and piling rearrangements of HIC´s and drums in the facility.

Reporting Group CFE-CLV, Site Structure: CLV

Country: Mexico (United Mexican States) Reporting Year: 2006

Facility: CLVACG1

Description	Spent fuel pool Unit 1

Storage part of the "CLVACG1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	No	No	NB B	No	No
NB C	No	No	INTERMEDIO	Yes	No
ALTO NIVEL	Yes	Yes			
SRS	No	No			

List SRS?	No
Capacity	Enough capacity for the lifetime of Laguna Verde Nuclear Power Plant Unit 1 (BWR Mark II)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CLVACG1	pool	1989	No	No	No	No

Facility: CLVACG2

Description	Spent fuel pool Unit 2

Storage part of the "CLVACG2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	No	No	NB B	No	No
NB C	No	No	INTERMEDIO	Yes	No
ALTO NIVEL	Yes	Yes			
SRS	No	No			

List SRS?	No
Capacity	Enough capacity for the lifetime of Laguna Verde Nuclear Power Plant Unit 2 (BWR Mark II)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CLVACG2	pool	1995	No	No	No	No

Facility: DDRSS

Description	Solid dry radioactive waste storage

Storage part of the "DDRSS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	Yes	Yes	NB B	No	No
NB C	No	No	INTERMEDIO	No	No
ALTO NIVEL	No	No			
SRS	No	No			
List SRS?	No				

Capacity	DDRSS has a remaining capacity of 76.86 cubic meters for drums and 14.0 cubic meters for boxes.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DDRSS	building	1993	No	No	No	No

Comment #7282: Supercompaction

There are plans for raising capacity of DDRSS by means of volume reduction via super compaction, which, at a ratio of 3:1, will give DDRSS enought capacity for up to 7 years.

Reporting Group CFE-CLV, Site Data: CLV

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name: Central Laguna Verde (Laguna Verde Nuclear Power Plant)

Inventory Reporting Date: December 2006 Waste Matrix: NOM-4-NUCL

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NB A	Storage DDRSS	No	494.82	100	0	0	0	0	0	0	No
NB A	Storage ATS	Yes	1308	100	0	0	0	0	0	0	No
NB A	Storage DDRSS	Yes	2041	100	0	0	0	0	0	0	No
INTERMEDIO	Storage CLVACG1	No	43.54	100	0	0	0	0	0	0	No
INTERMEDIO	Storage CLVACG2	No	32.37	100	0	0	0	0	0	0	No

Waste Class	Status
ALTO NIVEL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			same	
Decontamination	Yes			
Evaporation			decrease	
Filtration			same	
Ion Exchange			same	
Membrane Technology	Yes			
Metal Melting		Yes		
Super Compaction	Yes			
Wastewater Treatment	Yes			

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			decrease	
Cementation				Yes

Reporting Group ININ, Site Structure: ININ-CADER

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name:	Instituto Nacional de Investigaciones Nucleares, Centro de Almacenamiento de Desechos Radiactivos (Radioactive Waste Storage Center)
Location:	Km 18.5 Carretera Tizayuca-Otumba, Temascalapa Estado de México
License Holder(s) :	Instituto Nacional de Investigaciones Nucleares. Km. 36.5 Carretera Mexico-Toluca, Estado de MExico

The following list the waste management facilities that are located at this site.

Facility: CADER

Description	Centro de Almacenamiento de Desechos Radiactivos (Radioactive Waste Storage Center)

Storage part of the "CADER" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	Yes	No	NB B	Yes	No
NB C	No	No	INTERMEDIO	No	No
ALTO NIVEL	No	No			
SRS	Yes	No			

List SRS?	Yes
Capacity	Almacen 1: 131drums(200lt) and space for 18 sources (Sealed sourcres for therapy with Co-60). Almacen 2: 636 drums. Almacen 3: 120 drums (remaining capacities)

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Almacen 1	building	1985	No	No	No	Yes
Almacen 2	building	1994	No	No	No	No
Almacen 3	building	1994	No	No	No	No

Comment #12112: Storage Facility CADER

Capacity for Almacen 2 decreased considerably from 1544 to 770, this is due to a change in the stacking of drums options, in 2005, a 4 stacking lines option was adopted instead of a 5 stacking lines option.

Reporting Group ININ, Site Structure: ININ-CADER

Country: Mexico (United Mexican States) Reporting Year: 2006

Facility: CADER(T)

Description	Trenches that are the result of a past waste disposal practice (this practice is now banned)

Storage part of the "CADER(T)" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	Yes	No	NB B	No	No
NB C	No	No	INTERMEDIO	No	No
ALTO NIVEL	No	No			
SRS	No	No			
List SRS?	No				
Capacity	Trenches are closed				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TR 0	trench (lined)	1978	Yes	Yes	No	No
TR 1	trench (lined)	1978	Yes	Yes	No	No
TR 3	trench (lined)	1978	Yes	Yes	No	No
TR 5	trench (lined)	1978	Yes	Yes	No	No
TR 7	trench (lined)	1978	Yes	Yes	No	No

Reporting Group ININ, Site Data: ININ-CADER

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name: Instituto Nacional de Investigaciones Nucleares, Centro de Almacenamiento de Desechos Radiactivos (Radioactive Waste Storage Center)

Inventory Reporting Date: December 2006 Waste Matrix: NOM-4-NUCL

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NB A	Storage CADER	Yes	37.4	0	0	0	100	0	0	0	No
NB B	Storage CADER	No	20.94	0	0	0	19	0	81	0	No
NB B	Storage CADER	Yes	375.4	0	0	0	100	0	0	0	No

Comment #9801: Increased capacity of CADER

In 2004 no drums were received in the CADER, however, the storage capacity of radioactive waste increased slightly in 2004, this is due to the fact that some segregation activities were carried out as a consequence of repackaging radioactive waste from deteriorated drums to new ones, (clearance criteria were applied), probably this segregation activity will span one or two more years.more.

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Co-60	152	578	2	Yes	Yes	0	5.70E+05	
	4.00E+00	4.72E+05	9.76E+04					
Cs-137	136	873		Yes	Yes	0	1.60E+05	
	2.10E+01	1.60E+05						
Sr-90	69			Yes	No	0	4.30E+01	
	4.30E+01							
Kr-85	55			Yes	No	0	1.60E+02	
	1.60E+02							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Am-241 Neutron Gen.	12	125	Yes	No	0	1.71E+04	
	7.40E+00	1.71E+04					
Am-241	1205		Yes	No	0	1.00E+03	
	1.00E+03						
Ra-226	1132		Yes	Yes	0	8.20E+01	
	8.20E+01						

Reporting Group ININ, Site Structure: ININ-CN

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name:	Instituto Nacional de Investigaciones Nucleares-Centro Nuclear (Nuclear Research National Institute - Nuclear Centre)
Location:	Km. 36.5 Carretera Mexico-Toluca, Estado de Mexico
License Holder(s) :	Instituto Nacional de Investigaciones Nucleares (Nuclear Research National Institute)

The following list the waste management facilities that are located at this site.

Facility: PATRADER

Description	Planta de Tratamiento de Desechos Radiactivos (Radioactive Waste Treatment Plant)

Reporting Group ININ, Site Data: ININ-CN

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name: Instituto Nacional de Investigaciones Nucleares-Centro Nuclear (Nuclear Research National Institute - Nuclear Centre)

Inventory Reporting Date: December 2006 Waste Matrix: NOM-4-NUCL

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Chemical Precipitation			same	
Compaction			same	
Decontamination			same	
Filtration			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Ge-68	8			Yes	No	0	1.05E-01	
	1.05E-01							
Pm-147	3			Yes	No	0	2.23E+00	
	2.23E+00							
Na-22	2			Yes	No	0	2.00E-04	
	2.00E-04							
Po-210	21			Yes	No	0	8.17E-04	
	8.17E-04							
Cm-244	19			Yes	No	0	2.67E+01	
	2.67E+01							
Cf-252	19			Yes	No	0	7.03E+00	
	7.03E+00							
Sr-90		70		Yes	No	0	7.80E+03	
		7.80E+03						
Co-60		78		Yes	No	0	3.48E+04	
		3.48E+04						
Cs-137	459			Yes	Yes	0	9.20E+02	
	9.20E+02							
Ir-192		39		Yes	No	0	5.32E+03	
		5.32E+03						
Kr-85		40		Yes	No	0	3.38E+04	
		3.38E+04						
Bi-210	1			Yes	No	0	1.50E-07	
	1.50E-07							
Ba-133	10			Yes	No	0	2.81E-05	
	2.81E-05							
Cd-109	10			No	Yes	0	3.33E-01	
	3.33E-01							

Reporting Group ININ, Site Data: ININ-CN

Country: Mexico (United Mexican States) Reporting Year: 2006

Cf-252	10			No	Yes	0	5.93E+00	
	5.93E+00							
Co-57	14			No	Yes	0	1.15E+00	
	1.15E+00							
Fe-55	16			No	Yes	0	2.97E+00	
	2.97E+00							
Pb-210	2			No	Yes	0	2.70E-04	
	2.70E-04							
Th-228	1			Yes	No	0	7.70E-05	
	7.70E-05							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Am-241 Neutron Gen.		10	Yes	No	0	6.24E+02	
		6.24E+02					
Am-241		87	Yes	No	0	8.19E+03	
		8.19E+03					
Pu-239	2		No	Yes	0	5.10E-06	
	5.10E-06						
Pu-238	6		No	Yes	0	1.01E+01	
	1.01E+01						
U-238	1		No	Yes	0	4.20E-06	
	4.20E-06						
Bi-207	1		No	Yes	0	1.50E-07	
	1.50E-07						
Ni-63	13		No	Yes	0	6.35E+00	
	6.35E+00						
C-14	7		No	Yes	0	1.50E-05	
	1.50E-05						
Th-232	3		Yes	No	0	1.80E-04	
	1.80E-04						
Th-230	8		Yes	No	0	4.00E-07	
	4.00E-07						
Ra-226	20		No	Yes	0	2.24E+01	
	2.24E+01						

Multiple Nuclides Spent Sources in storage Waste data available, will not be reported

Reporting Group ININ, Site Structure: PIEDRERA

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name: LA PIEDRERA Radiaoctive Waste Disposal Facility

Location: El Vergel, Chihuahua, 55 Km south from Ciudad Juarez

License Holder(s) : Licensing in process (Institutional Control)
Responsible Entity: ININ (Nuclear Research National Institute)

The following list the waste management facilities that are located at this site.

Facility: PIEDRERA

Description	LA PIEDRERA Radioactive Waste Disposal Facility

Disposal part of the "PIEDRERA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	Yes	No	NB B	No	No
NB C	No	No	INTERMEDIO	No	No
ALTO NIVEL	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	20896	Capacity -planned (m3)	20896
Depth (m)	5		
Host medium	crystalline rock (basalt)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1985	1985
site selection		1985	1985
design		1985	1985
construction		1985	1986
commissioning		1985	1986
operation		1985	1986
closure		1986	1986
institutional control		1998	2038

Comment #7297: Radioactive Waste Disposed

Only the radioactive waste originated in 1983 from the accident with a Co-60 source at Ciudad Juarez, is disposed in this facility.

Reporting Group ININ, Site Data: PIEDRERA

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name: LA PIEDRERA Radiaoctive Waste Disposal Facility

Inventory Reporting Date: December 2006 Waste Matrix: NOM-4-NUCL

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
NB A	Disposal PIEDRERA	No	38	0	0	0	0	0	100	0	No
NB A	Disposal PIEDRERA	Yes	20858	0	0	0	0	0	100	0	No

Reporting Group SENER, Site Structure: ADDER

Country: Mexico (United Mexican States) Reporting Year: 2006

Full Name:	Almacen Definitivo de Desechos Radiactivos de Nivel Bajo (Low Level Radioactive Waste Disposal Facility), provitional name
Location:	Site not yet selected, design in conceptual stage
License Holder(s) :	No licence

The following list the waste management facilities that are located at this site.

Facility: ADDER

Description	Almacen Definitivo de Desechos Radiactivos de Bajo Nivel (Low Level Radioactive Waste Disposal Facility)

Disposal part of the "ADDER" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
NB A	No	Yes	NB B	No	Yes
NB C	No	Yes	INTERMEDIO	No	No
ALTO NIVEL	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	not specified
Depth (m)			
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1993	

REGULATORS

Country: Mexico (United Mexican States) Reporting Year: 2006

Name	CNSNS GSR
Full Name	Comision Nacional de Seguridad Nuclear y Salvaguardias (Nuclear and Safeguards National Comission)
Division	Gerencia de Seguridad Radiologica (Radiological Safety Manager Office)
City or Town	Mexico D.F.

Name	CNSNS GSN
Full Name	Comision Nacional de Seguridad Nuclear y Salvaguardias (Nuclear and Safeguards National Commission)
Division	Gerencia de Seguridad Nuclear (]Nuclear Safety Manager Office)
City or Town	Mexico D.F.

REGULATIONS / LAWS

Country: Mexico (United Mexican States) Reporting Year: 2006

Name	LEY 27	
Title or Name	Ley Reglamentaria del Articulo 27 Constitucional en Materia Nuclear (Nuclear Matters Law of Constitutional Article 27)	
Reference Number		
Date Promulgated or Proclaimed	1984-02-04	Law

Comment #5191: Wastes that are regulated by the Law

Matrix NOM-4-NUCL - ALTO NIVEL, INTERMEDIO, NB A, NB B, NB C

Name	RGSR	
Title or Name	Reglamento General de Seguridad Radiologica (Radiological Safety General Regulation)	
Reference Number		
Date Promulgated or Proclaimed	1988-11-22	Regulation

Comment #5192: Wastes that are regulated by the Regulation

Matrix NOM-4-NUCL - ALTO NIVEL, INTERMEDIO, NB A, NB B, NB C

Name	004-NUCL	
Title or Name	RADIOACTIVE WASTE CLASSIFICATION	
Reference Number	NOM-004-NUCL-1994	
Date Promulgated or Proclaimed	1996-03-04	Regulation

Comment #5193: Wastes that are regulated by the Norm

Matrix NOM-4-NUCL - ALTO NIVEL, INTERMEDIO, NB A, NB B, NB C

Name	018-NUCL	
Title or Name	Methods for assessing the concentration and total activity in radioactive waste packages	
Reference Number	NOM-018-NUCL-1996	
Date Promulgated or Proclaimed	1996-08-12	Regulation

Comment #5194: Wastes that are regulated by the Norm

Matrix NOM-4-NUCL - ALTO NIVEL, INTERMEDIO, NB A, NB B, NB C

Name	019-NUCL	
Title or Name	Acceptance criteria for waste packages for disposal of low level radioactive waste in near surface facilities	
Reference Number	NOM-019-NUCL-1995	
Date Promulgated or Proclaimed	1996-08-14	Regulation

Comment #5195: Wastes that are regulated by the Norm

Matrix NOM-4-NUCL - NB A, NB B, NB C

REGULATIONS / LAWS

Country: Mexico (United Mexican States) Reporting Year: 2006

Name	020-NUCL	
Title or Name	Requirements for radioactive waste incineration facilities	
Reference Number	NOM-020-NUCL-1995	
Date Promulgated or Proclaimed	1996-08-15	Regulation

Name	021-NUCL	
Title or Name	Leach tests for solid samples of radioactive waste	
Reference Number	NOM-021-NUCL-1996	
Date Promulgated or Proclaimed	1997-08-04	Regulation

Comment #403: Restriction of applicability

NOM-021-NUCL-1996 applies to Low Level Radioactive Waste Class A (NB A) only when these wastes are deposited in the same disposal cell than Low Level Radioactive Waste Class B (NB B)

Comment #5197: Wastes that are regulated by the Norm

Matrix NOM-4-NUCL - NB B, NB C

Name	022-NUCL-1	
Title or Name	Requirements for Near surface radioactive waste disposal facilities. Part 1, Site	
Reference Number	NOM-022/1-NUCL-1996	
Date Promulgated or Proclaimed	1997-09-05	Regulation

Comment #5198: Wastes that are regulated by the Norm

Matrix NOM-4-NUCL - NB A, NB B, NB C

Name	022-NUCL-2	
Title or Name	Requirements for Near surface Radioactive waste disposal facilities. Part 2, Design	
Reference Number	NOM-022/2-NUCL-1996	
Date Promulgated or Proclaimed	1997-09-05	Regulation

Comment #5199: Wastes that are regulated by the Norm

Matrix NOM-4-NUCL - NB A, NB B, NB C

REGULATIONS / LAWS

Country: Mexico (United Mexican States) Reporting Year: 2006

Name	022-NUCL-3	
Title or Name	Requirements for Near surface Radioactive waste disposal facilities. Part 3, Operations and Closure	
Reference Number	NOM-022/3-NUCL-1996	
Date Promulgated or Proclaimed	1999-01-14	Regulation

Comment #5200: Wastes that are regulated by the Norm

Matrix NOM-4-NUCL - NB A, NB B, NB C

Name	028-NUCL	
Title or Name	Radioactive Waste management in radioactive facilities with non-sealed radioactive sources	
Reference Number	NOM-028-NUCL-1996	
Date Promulgated or Proclaimed	1998-12-22	Regulation

Name	035-NUCL	
Title or Name	Clearance levels for radioactive material	
Reference Number	NOM-035-NUCL-2000	
Date Promulgated or Proclaimed	2000-05-19	Regulation

Name	036-NUCL	
Title or Name	Requirements for facilities for radioactive waste treatment and conditioning	
Reference Number	NOM-036-NUCL-2001	
Date Promulgated or Proclaimed	2001-09-26	Regulation

Policies

Country: Mexico (United Mexican States) Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	No

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	No
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	No
12	implemented formal mechanisms for disseminating information to the public and for public consultation	No

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	

24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Partially
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Partially
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	No

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All

Policies

Country: Mexico (United Mexican States) **Disposal Facilities** Reporting Year: 2006

42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

Policies

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No

Policies

88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	No

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	No

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Norway

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-26 09:10:33

Waste Class Matrix(ces) Used/Defined

Country: Norway, Kingdom of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: NOR Def.

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
LLW	90	10	0
ILW	85	15	0

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Norway, Kingdom of Reporting Year: 2006

Reporting Group: **IFE**

Inventory Reporting Date: December 2006

Waste Matrix Used: NOR Def.

Description: Institute for Energy Technology.
Responsible for the waste handling and treatment plant. (It is only this plant for radiaoctive waste in Norway). Operator of the combined disposal and storage facility for LILW in Himdalen.

Site Name	Facility Name	Facilities Defined		
Himdalen	Himdalen		storage	disposal
Kjeller	Radavfall	processing	storage	
	Lager 1		storage	
	Lager 2		storage	
	SLB			disposal

Reporting Group IFE, Site Structure: Himdalen

Country: Norway, Kingdom of

Reporting Year: 2006

Full Name:	Combined disposal and storage facility for LILW
License Holder(s) :	Construction and owner: Statsbygg Operation: Institute for Energy Technology (IFE) Institute for Energy Technology

The following list the waste management facilities that are located at this site.

Facility: Himdalen

Description	Combined disposal and storage facility

Storage part of the "Himdalen" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	ILW	No	No
SRS	No	No			

List SRS?	No
Capacity	This is the storage part (one hall) in the Combined facility.The principle storage capacity is 525 m3 but at the moment only 35 m3 of specific waste packages are approved for storage.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage-H	cave	1999	No	No	No	No

Disposal part of the "Himdalen" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	ILW	Yes	Yes
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes

List SRS	No		
Type	rock cavern (mountain/hill)		
Facility is non modular			
Capacity - existing (m3)	1575	Capacity -planned (m3)	1575
Depth (m)	50 m		
Host medium	crystalline rock (basalt)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1989	1992
site selection			1994
design		1994	1997
construction		1997	1998
commissioning		1998	1999
operation		1999	
closure		2030	
institutional control			2330

Reporting Group IFE, Site Data: Himdalen

Country: Norway, Kingdom of Reporting Year: 2006

Full Name: Combined disposal and storage facility for LILW

Inventory Reporting Date: December 2006 Waste Matrix: NOR Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	Yes	35	100	0	0	0	0	0	0	Yes
LLW	Disposal	Yes	750	60	0	0	40	0	0	0	Yes
ILW	Disposal	Yes	485	40	0	0	60	0	0	0	Yes

Reporting Group IFE, Site Structure: Kjeller

Country: Norway, Kingdom of Reporting Year: 2006

Full Name:	Institute for Energy Technology Waste treatment plant Storage facilities
License Holder(s) :	Institute for Energy Technology (IFE)

The following list the waste management facilities that are located at this site.

Facility: Radavfall

Description	Facility for sorting, treating, handling, conditioning of LILW and storing SRS

Processing part of the "Radavfall" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	ILW	Yes	Yes
SRS	Yes	No			
List SRS?	Yes				

Type	treatment, conditioning
Year opened	1960

Storage part of the "Radavfall" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	ILW	Yes	Yes
SRS	Yes	No			
List SRS?	Yes				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	silo	1960	No	No	No	Yes

Facility: Lager 1

Description	Storage facility 1. For storing solid, conditioned waste

Storage part of the "Lager 1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	ILW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Lager 1	building	1960	No	No	No	No

Reporting Group IFE, Site Structure: Kjeller

Country: Norway, Kingdom of Reporting Year: 2006

Facility: Lager 2

Description	Storage facility for solid, conditioned waste.

Storage part of the "Lager 2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	Yes	Yes	ILW	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Lager 2	building	1975	No	No	No	No

Facility: SLB

Description	A former Shallow Land Burial: 1000 drums was buried in 2 layers and covered by 2m of clay. Waste has been retrieved and moved to Himdalen facility

Disposal part of the "SLB" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LLW	No	No	ILW	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	not specified
Depth (m)			
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1969	
site selection			1970
commissioning		1970	
operation		1970	2001
Additional Activities and Events			
ACTIVITY: decommissioning		2001	2002

Reporting Group IFE, Site Data: Kjeller

Country: Norway, Kingdom of Reporting Year: 2006

Full Name: Institute for Energy Technology
Waste treatment plant
Storage facilities

Inventory Reporting Date: December 2006 Waste Matrix: NOR Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	16	10	0	0	90	0	0	0	Yes
LLW	Storage	Yes	5	10	0	0	90	0	0	0	Yes
ILW	Storage	No	2	40	0	0	60	0	0	0	Yes
ILW	Storage	Yes	4	40	0	0	60	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			decrease	
Evaporation			same	
Incineration			same	
Ion Exchange			same	
Shredding and Compaction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Solidification			same	

Spent Sources >30 years in storage Waste data available, will not be reported.

REGULATORS

Country: Norway, Kingdom of

Reporting Year: 2006

Name	NRPA
Full Name	Norwegian Radiation Protection Authority P.O. Box 55 NO- 1332 Østerås, Norway
Division	Department for Radiation Protection and Nuclear Safety
City or Town	Østerås

REGULATIONS / LAWS

Country: Norway, Kingdom of Reporting Year: 2006

Name	ANAAct	
Title or Name	Lov om atomenergivirksomhet "Act on Atomic Nuclear Activities"	
Reference Number	28	
Date Promulgated or Proclaimed	1972-05-12	Law

Comment #212: Other laws

Concerning the construction of a facility or a repository also other laws are in force.
For ex. Environmental Imapact Assessments and Impact assessments are regulated in the "Building Act".

Name	RPact	
Title or Name	Om strålevern og bruk av stråling. "Act on radiation protection and use of radiation"	
Reference Number	no 36 (I-00 34/B)	
Date Promulgated or Proclaimed	2000-05-12	Law

Comment #5325: Wastes that are regulated by the Law

Matrix NOR Def. - ILW, LLW
Also NORM, TENORM

Name	RPreg.	
Title or Name	Forskrift om strålevern og bruk av stråling. Regulation concerning radiation protection and the use of radiation.	
Reference Number	1362	
Date Promulgated or Proclaimed	2003-11-21	Regulation

Comment #7298: Guidelines

The Regulation covers all aspects of the use of radiation, in industry and medicine. Also non ionising radiation is covered.

Radioactive waste and discharges are covered in Chapter V in paragraphs 23,24,25.

NRPA is now in the process of producing guidelines for specific users (groups) in how to apply the regulation.

Permits etc will be given by NRPA after applications.

Name	PPReg	
Title or Name	Regulations on the Physical Protection of Nuclear Material Regulation pursuant to the ANA Act.	
Reference Number		
Date Promulgated or Proclaimed	1984-11-02	Regulation

REGULATIONS / LAWS

Country: Norway, Kingdom of | Reporting Year: 2006

Name	ExReg	
Title or Name	Regulations on exemption from the Act on Atomic Energy Activities for small amounts of nuclear material. Pursuant to the ANA Act	
Reference Number		
Date Promulgated or Proclaimed	1985-11-15	Regulation

Name	HMSReg	
Title or Name	Regulations relating to Systematic Health, Environmental and Safety Activites in Enterproces. Pursuant to the RP Act (and also other Acts in Norway)	
Reference Number		
Date Promulgated or Proclaimed	1996-12-06	Regulation

MILESTONES

Country: Norway, Kingdom of Reporting Year: 2006

Start Year or Reference Year:	1989	End Year	1998
Description of Milestone			
1989-1998 Process of establishing a disposal for the LILW in Norway.			

Start Year or Reference Year:	1994	End Year	1994
Description of Milestone			
April 1994: Parliamentary decision; "Continue with site investigations at the Himdalen site for the construction of a Combined disposal and storage facility for LILW in Norway".			

Start Year or Reference Year:	1995	End Year	1995
Description of Milestone			
December 1995: NRPA request to IAEA for a WATRP review about the Himdalen site/facility.			

Start Year or Reference Year:	1999	End Year	2004
Description of Milestone			
Transfer of the waste pacakges from the storage facilites at IFE Kjeller to the Himdalen facility performed and completed. The 166 drums, containing some Pu, retrieved from the former shallow land disposal are now placed in the storage part of the Himdalen facility, awaiting further (final) decision.			

Start Year or Reference Year:	1999	End Year	1999
Description of Milestone			
March 1999: The first transport of waste containers to the Himdalen repository from the IFE Kjeller plant.			

Start Year or Reference Year:	2001	End Year	
Description of Milestone			
Retrieval of the shallow land disposal facility at the IFE Kjeller site. All drums retrieved, repacked, stored.			

Policies

Country: Norway, Kingdom of Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

Comment #7300: Long lived waste

Discussions have started to find a solution for the SNF, long lived waste and other wastes that cannot be disposed of in Himdalen.

A (new) centralised storage facility is under evaluation.

The Norwegian authorities are at present considering the overall future radioactive waste and spent fuel management policy. Important aspects are future needs for new nuclear facilities (i.e storage and disposal capacities), optimal use of existing facilities,organisational structures, financing and public confidence.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

Comment #7301: Strategy

The discussions have started to find a policy and strategy that will cover all waste arisings and to have an optimised system. Return (reexport) of Spent SRS will be an important part of the discussion and will have an impact on the inventories of waste in Norway.

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Partially
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
7	implemented controls over radioactive waste generation	Partially
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Partially
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Partially
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete

17	define the responsibilities of waste generators and operators of waste management facilities	Incomplete
18	provide for adequate resources	Incomplete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below		

Disposal Facilities

Licensing	(Yes - All;Yes - Some;No)

Policies

Country: Norway, Kingdom of | **Disposal Facilities** | Reporting Year: 2006

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	Yes - Some
41	Environmental Impact Statement (EIS)	Yes - Some
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - Some

Comment #213: Environmental Assessment

An Impact Assessment (covering more issues than the environment) is reuired by law before the construction of a nuclear facility. The IA is carried out before the licensing process starts. The IA for the Himdalen disposal facility was performed in connection with the site selection process (the IA covered three possible sites).

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

Comment #215: Waste acceptance criteria

Waste acceptance criteria are not defined in any legal documents. Spesific criteria will be established for any new facilities.

For the Himdalen disposal facility the planned/expected waste was described in the safety report (conditioning methods, amount, activity etc). This has now been aproved and the waste can be disposed of. Any waste not described in the Safety report, the operator has to apply to NRPA for each pacakage on a case-by-case.
All "old and existing" wastes have now been disposed of in the Himdalen facility, and spesific waste acceptans criterias could be developed for future wastes.

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Comment #9895: Policies Disposal Facilities-Post-Closure

For the Himdalen disposal facility (LILW) it has been decided that an institutional control period of 300-500 years with monitoring and land use restrictions will apply.
The facility is planned to be in operation until 2030 and at that time formal procedures and documentation for record keeping and institutional control will be established.

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	No
61	waste minimization	No
62	waste storage	No
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No

65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	No
110	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Comment #9896: Policies Processing/Storage-Foreign

In 1969 spent fuel from The Halden Boiling Heavy Water reactor was reprocessed in Belgium. This is the only Norwegian spent fuel that has been reprocessed abroad. The plutoium and uranium gained from the reprocessing was sold for civilian use and the radioactive waste remained in Belgium.

Spent SRS

	Registration	(Yes;No)

Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)

71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

Comment #297: Registres

Each user /license holder is requried to have a register of their sources.
Resources are now being put into developping an electronic web-based central register (at NRPA) for radioactive sources.

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

80	Government to Government agreements	No

Policies

Country: Norway, Kingdom of **Spent SRS** Reporting Year: 2006

81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	No

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Pakistan

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Country Waste Profile Report for Philippines

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-03-04 08:45:50

Waste Class Matrix(ces) Used/Defined

Country: Philippines, Republic of the Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #142: waste matrix status

currently under government approval to adopt IAEA classification

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed				
processed				

Groups Overview

Country: Philippines, Republic of the Reporting Year: 2006

Reporting Group: **PNRI**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Philippine Nuclear Research Institute

Site Name	Facility Name	Facilities Defined		
RPS	CWM&TF	processing	storage	

Reporting Group PNRI, Site Structure: RPS

Country: Philippines, Republic of the Reporting Year: 2006

Full Name: Radiation Protection Services

Location: Philippine Nuclear Research Institute
Diliman, Quezon City, Philippines

License Holder(s) : not a licensed site, responsible organization is the Philippine Nuclear Research Institute

The following list the waste management facilities that are located at this site.

Facility: CWM&TF

Description	Central Waste Management and Treatment Facility

Processing part of the "CWM&TF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1997

Storage part of the "CWM&TF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	No			
List SRS?	Yes				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Trench A	trench (lined)	1997	No	No	Yes	Yes
Trench B	trench (lined)	2005	No	No	Yes	Yes

Reporting Group PNRI, Site Data: RPS

Country: Philippines, Republic of the Reporting Year: 2006

Full Name: Radiation Protection Services

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	15	0	0	0	100	0	0	0	Yes
LILW-SL	Storage	Yes	1	0	0	0	100	0	0	0	Yes
LILW-LL	Storage	No	3	40	0	0	60	0	0	0	Yes
LILW-LL	Storage	Yes	2	0	0	0	100	0	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			decrease	
Compaction			decrease	
Ion Exchange			decrease	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Encapsulation			same	

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Tl-204	7			No	Yes	5	5.79E-04	2006.12 (estimate)
	5.79E-04							
Tl-204	1			Yes	No	5	8.88E-05	2006.12 (estimate)
	8.88E-05							
Sr-90		1		No	Yes	4	3.85E+01	2006.12 (estimate)
		3.85E+01						
Sr-90	53			No	Yes	5	2.11E+01	2006.12 (estimate)
	2.11E+01							
Sr-90	102			Yes	No	5	4.18E+01	2006.12 (estimate)
	4.18E+01							
Pm-147	17			No	Yes	5	1.29E+01	2006.12 (estimate)
	1.29E+01							
Pm-147	4			Yes	No	5	3.04E+00	2006.12 (estimate)
	3.04E+00							
Kr-85	19			Yes	No	5	2.21E+01	2006.12 (estimate)
	2.21E+01							
Kr-85	3			No	Yes	5	3.39E-01	2006.12 (estimate)
	3.39E-01							
Ir-192	1			No	Yes	5	5.74E-01	2006.12 (estimate)
	5.74E-01							
H-3		8		No	Yes	5	7.05E+01	2006.12 (estimate)
		7.05E+01						

H-3	7			Yes	No	5	1.14E+01	2006.12 (estimate)
	1.14E+01							
Fe-55	5			No	Yes	5	1.05E+00	2006.12 (estimate)
	1.05E+00							
Fe-55	14			Yes	No	5	1.01E+00	2006.12 (estimate)
	1.01E+00							
Cs-137		2		Yes	No	2	5.30E+04	2006.12 (estimate)
		5.30E+04						
Cs-137	19			No	Yes	5	7.97E+00	2006.12 (estimate)
	7.97E+00							
Cs-137		30		No	Yes	4	2.81E+02	2006.12 (estimate)
		2.81E+02						
Cs-137		70		Yes	No	4	7.63E+02	2006.12 (estimate)
		7.63E+02						
Cs-137	34			Yes	No	5	1.61E+01	2006.12 (estimate)
	1.61E+01							
Co-60		7		No	Yes	2	7.07E+04	2006.12 (estimate)
		7.07E+04						
Co-60			4	No	Yes	1	1.80E+05	2006.12 (estimate)
			1.80E+05					
Co-60		8		Yes	No	2	4.41E+04	2006.12 (estimate)
		4.41E+04						
Co-60	9			No	Yes	4	1.19E+01	2006.12 (estimate)
	1.19E+01							
Co-60		4		No	Yes	3	2.57E+02	2006.12 (estimate)
		2.57E+02						
Co-60		3		Yes	No	4	1.36E+01	2006.12 (estimate)
		1.36E+01						
Co-60		1		Yes	No	1	3.25E+04	2006.12 (estimate)
		3.25E+04						
Co-60	52			No	Yes	5	1.89E+00	2006.12 (estimate)
	1.89E+00							
Co-60	34			Yes	No	5	1.59E+00	2006.12 (estimate)
	1.59E+00							
Co-57	6			No	Yes	5	5.45E-03	2006.12 (estimate)
	5.45E-03							
Cf-252 Neutron Gen.	4			No	Yes	5	1.05E-01	2006.12 (estimate)
	1.05E-01							
Cd-109	5			Yes	No	5	8.66E-02	2006.12 (estimate)
	8.66E-02							

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226	2		No	Yes	4	2.19E+00	2006.12 (estimate)
	2.19E+00						
Ra-226	166		Yes	No	5	7.83E+00	2006.12 (estimate)
	7.83E+00						

Ra-226	111		Yes	No	4	3.00E+00	2006.12 (estimate)
	3.00E+00						
Ra-226	22		No	Yes	5	1.04E+00	2006.12 (estimate)
	1.04E+00						
Pu-238	10		No	Yes	4	1.17E+01	2006.12 (estimate)
	1.17E+01						
Ni-63	348		No	Yes	5	1.15E+00	2006.12 (estimate)
	1.15E+00						
Am-241		13	No	Yes	4	1.13E+02	2006.12 (estimate)
		1.13E+02					
Am-241		2	No	Yes	3	2.86E+02	2006.12 (estimate)
		2.86E+02					
Am-241		10	Yes	No	4	2.44E+01	2006.12 (estimate)
		2.44E+01					
Am-241	887		No	Yes	5	3.93E-01	2006.12 (estimate)
	3.93E-01						

Multiple Nuclides Spent Sources in storage

Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
Am-241 Neutron Gen.	5.260E+00	No	Yes	4	2006.12 (estimate)
Cs-137	5.220E-01				
Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
Am-241 Neutron Gen.	2.650E+01	Yes	No	4	2006.12 (estimate)
Cs-137	2.760E+00				

REGULATORS

Country: Philippines, Republic of the Reporting Year: 2006

Name	PNRI
Full Name	Philippine Nuclear Research Institute
Division	Nuclear Regulations, Licensing and Safeguards Division
City or Town	Quezon City

REGULATIONS / LAWS

Country: Philippines, Republic of the Reporting Year: 2006

Name	CPRPart3	
Title or Name	Standards for Radiation Protection	
Reference Number	PNRI CPR PART 3	
Date Promulgated or Proclaimed	2004-09-06	Regulation

Name	CPR Part4	
Title or Name	Regulations for Safe Transport of Radioactive Material in the Philippines	
Reference Number	PNRI CPRPart4	
Date Promulgated or Proclaimed	2004-09-06	Regulation

Name	CPRPart23	
Title or Name	Licensing Requirements for Land Disposal of Radioactive Waste	
Reference Number	PNRICPRPart23	
Date Promulgated or Proclaimed	2004-05-09	Regulation

MILESTONES

Country: Philippines, Republic of the Reporting Year: 2006

Start Year or Reference Year:	1996	End Year	1997
Description of Milestone			
Commissioning of the Centralized Facility for Radioactive Waste Management			

Start Year or Reference Year:	1998	End Year	1999
Description of Milestone			
Establishment of the National Registry of Radiation Sources			

Start Year or Reference Year:	1999	End Year	2001
Description of Milestone			
Radium Conditioning under the IAEA Advisory Involvement Scheme			

Start Year or Reference Year:	2004	End Year	2005
Description of Milestone			
Upgraded the security of the radioactive waste management facility and construction of new engineered trench with a capacity of approx. 300 cu.m. under the US-DOE project			

Policies

Country: Philippines, Republic of the — Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Partially

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

Policies

Country: Philippines, Republic of the **National Systems** Reporting Year: 2006

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	No
41	Environmental Impact Statement (EIS)	No
42	Performance Assessment (PA)	No
43	Quality Assurance (QA)	No
44	Safety Assessment (SA)	No

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	No
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

	Procedures	(Yes;No)

78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)

Policies

Country: Philippines, Republic of the **Decommissioning** Reporting Year: 2006

98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	No

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	No

Country Waste Profile Report for Romania

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-03-03 09:13:44

Waste Class Matrix(ces) Used/Defined

Country: Romania Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #128: IAEA Matrix use

The use of IAEA Def. matrix is not required by any law or regulation.
The matrix is just being used to report-non-power wastes to the NEWMDB.

Waste Class Matrix: NPP waste

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
type 1	100	0	0
type 2	40	60	0
type 3	0	100	0

Description: type 1: nominal activity less than 7.5E09 Bq/m3 (1 nominal Bq is the emission of 1 photon/sec of 0.8 MeV energy); or gamma dose rate less than 2 mGy/h at container surface
type 2: nominal activity between 7.5E09 and 3.7E12 Bq/m3; or gamma dose rate between 2 mGy/h and 125 mGy/h at container surface
type 3: nominal activity higher than 3.7E12 Bq/m3; or gamma dose rate higher than 125 mGy/h at container surface

Comment #129: NPP types of waste

The NPP types of waste were established by the reference document of NPP RD-01364-RP1 (rev.3) "Solid Radioactive Waste Management Concept for Cernavoda NPP", approved by the regualtory authority (CNCAN) on 14 Nov.1994.

Comment #130: percentages in the NPP waste matrix

The percentages in the NPP waste matrix were estimated based on best knowledge of the waste (not on detailed analytical information).The percentages will be modified after more information will be available.

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Comment #12223: Definitions for Unprocessed Waste and Processed W

According to NDR-01 regulations In Romania there is the following definition:Conditioning of radioactive waste - involves those operations that transform radioactive waste into a form suitable for handling, transport, storage and disposal. The operations may include immobilization of radioactive waste, placing the waste into containers and providing additional packaging.

Groups Overview

Country: Romania Reporting Year: 2006

Reporting Group: **Non-Power**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Non-Power group is reporting the waste originated from non-power application, except the uranium mining and milling waste, which is not reported in this database.

Site Name	Facility Name	Facilities Defined		
NIPNE	STDR-Mag	processing	storage	
	DNDR			disposal
NRI	STDR-Pit	processing		
	LEPI		storage	

Reporting Group: **NPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: NPP waste

Description: NPP Group is reporting the waste stored at NPP Cernavoda site.

Site Name	Facility Name	Facilities Defined		
CNE - PROD	DIDR		storage	

Reporting Group Non-Power, Site Structure: NIPNE

Country: Romania Reporting Year: 2006

Full Name: National Institute for Development&Research for Physics and Nuclear Engeneering - "Horia Hulubei"

Location: 407 Atomistilor street, Magurele, jud. Ilfov

License Holder(s) : NIPNE, General Director dr. Nicolae Victor Zamfir, tel.:+(4021)4042300, fax:+(4021)4574440

The following list the waste management facilities that are located at this site.

Facility: STDR-Mag

Description	Storage of LL spent sources and LILW-LL

Storage part of the "STDR-Mag" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	Yes	Yes			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1975	No	No	Yes	Yes

Reporting Group Non-Power, Site Structure: NIPNE

Country: Romania Reporting Year: 2006

Facility: DNDR

Description	Disposal for LILW-SL and SL spent sources sited at Baita-Bihor, in a former uranium exploration mine (coastal gallery).

Disposal part of the "DNDR" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	No				

Type	rock cavern (mountain/hill)		
Facility is non modular			
Capacity - existing (m3)	5000	Capacity -planned (m3)	5000
Depth (m)	0-40 m		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1970	1972
site selection		1972	1975
design		1975	1977
construction		1978	1981
commissioning		1981	1985
operation	Yes	1985	2030
closure		2030	2035
institutional control		2035	2335

Reporting Group Non-Power, Site Data: NIPNE

Country: Romania Reporting Year: 2006

Full Name: National Institute for Development&Research for Physics and Nuclear Engeneering - "Horia Hulubei"

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	160	0	0	0	95	0	5	0	No

Comment #6610: The additional characteristics of the waste

Unprocessed: solid (non-dispersible)

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal DNDR	Yes	1469	30	0	0	70	0	0	0	No

Comment #6611: The additional characteristics of the waste

Processed: solid (non-dispersible)

Class	Location Facility	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-LL	Storage STDR-Mag	Yes	6.8	0	0	0	100	0	0	0	No

Comment #6612: The additional characteristics of the waste

Unprocessed: solid (non-dispersible)

Comment #12222: Waste Storage facilities/Class LILW-LL/Site NIPNE

The processed waste refers to the radium spent sealed radioactive sources conditioned for long term storage

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			suspended	
Compaction			decrease	
Decontamination			decrease	
Evaporation			suspended	
Filtration			suspended	
Incineration			decrease	
Ion Exchange			suspended	
Shredding and Compaction			decrease	

Comment #9745: Waste Treatment on Site NIPNE

The authorization of installation for the treatment of liquid radioactive waste was suspended by competent authority (CNCAN).
The owner of the installation has the intention to purchase a new liquid treatment installation.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization		Yes		
Cementation			same	
Polymerization		Yes		

Reporting Group Non-Power, Site Structure: NRI

Country: Romania Reporting Year: 2006

Full Name: Authonomus Company for Nuclear Activities - Nuclear Research Institute Pitesti

Location: 1 Campului street, Mioveni, jud. Arges

License Holder(s) : Authonomus Company for Nuclear Activities through Nuclear Research Institute Pitesti, Director prof.dr. Serban Constantin Valeca
tel.:+(40248)213400, fax:+(40248)262449

The following list the waste management facilities that are located at this site.

Facility: STDR-Pit

Description	Radioactive waste treatment facility for LILW-SL (solid&liquid radwaste)

Facility: LEPI

Description	Post irradiation laboratory, storing fuel fragments and high activity spent sources. The sources are stored in pits sited in hot cells.

Storage part of the "LEPI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	Yes	Yes			
SRS	Yes	Yes			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Stor.cells	pit	1985	No	No	Yes	Yes

Reporting Group Non-Power, Site Data: NRI

Country: Romania Reporting Year: 2006

Full Name: Authonomus Company for Nuclear Activities - Nuclear Research Institute Pitesti

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-LL	Storage	No	2.2	20	0	0	80	0	0	0	No
Comment #6615: The additional characteristics of the waste Unprocessed: solid (dispersible), solid (non-dispersible)											
HLW	Storage	No	0.027	100	0	0	0	0	0	0	No
Comment #6616: The additional characteristics of the waste Unprocessed: solid (dispersible), solid (non-dispersible)											

Waste Class	Status
LILW-SL (in Storage)	Waste data available, will not be reported.
Comment #6614: The additional characteristics of the waste Unprocessed: solid (dispersible), solid (non-dispersible)	

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination			same	
Evaporation			same	
Membrane Technology		Yes		

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	

Reporting Group NPP, Site Structure: CNE - PROD

Country: Romania Reporting Year: 2006

Full Name: National Company NUCLEARELECTRICA, CNE -PROD

Location: 1 Medgidiei street, Cernavoda, jud. Constanta

License Holder(s) : National Company NUCLEARELECTRICA, CNE -PROD,
General Director Theodor Chirica, tel.:+(401)3120800, fax:+(401)3120800

The following list the waste management facilities that are located at this site.

Facility: DIDR

Description	Storage facility for operational radioactive waste.

Storage part of the "DIDR" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
type 1	Yes	Yes	type 2	Yes	Yes
type 3	No	No			
SRS	No	No			

List SRS?	No
Capacity	1400 cubic meters

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DIDR	building	1996	No	No	No	No

Reporting Group NPP, Site Data: CNE - PROD

Country: Romania Reporting Year: 2006

Full Name: National Company NUCLEARELECTRICA, CNE -PROD

Inventory Reporting Date: December 2006 Waste Matrix: NPP waste

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
type 1	Storage	No	270.01	100	0	0	0	0	0	0	No
Comment #6617: The additional characteristics of the waste Unprocessed: flammable, liquid (organic), resin, solid (dispersible), solid (non-dispersible)											
type 2	Storage	No	67.5	100	0	0	0	0	0	0	No
Comment #6618: The additional characteristics of the waste Unprocessed: flammable, liquid (organic), resin, solid (dispersible), solid (non-dispersible)											

REGULATORS

Country: Romania Reporting Year: 2006

Name	CNCAN
Full Name	National Commission for Nuclear Activities Control
Division	Radioactive Waste and Decommissioning Section
City or Town	Bucharest

Comment #6607: Wastes that are regulated by the Regulator

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix NPP waste - type 1, type 2, type 3

REGULATIONS / LAWS

Country: Romania Reporting Year: 2006

Name	Law 111	
Title or Name	Law 111/1996 (as amended) on safe deployment of nuclear activities	
Reference Number	111/1996	
Date Promulgated or Proclaimed	1996-12-28	Law

Comment #6608: Wastes that are regulated by the Law

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix NPP waste - type 1, type 2, type 3

Comment #14618: Regulation Law 111

The law was ammended and republished in 2006

Attachment #1379:

File name: Law no 111 of 1996_2006.pdf

File type: PDF Document

Member State's Reference # Law 111

Name	NSR-01	
Title or Name	Radiation Safety Fundamental Norms approved by the order of the President of National Commission for Nuclear Activities Control	
Reference Number	Order 14/2001	
Date Promulgated or Proclaimed	2000-08-29	Regulation

Comment #6609: Wastes that are regulated by the Regulation

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL; Matrix NPP waste - type 1, type 2, type 3

Attachment #1380:

File name: o14_2000 transposing 96_29.pdf

File type: PDF Document

Member State's Reference # order 14_2000

Name	NDR-01	
Title or Name	Fundamentals Norms for the Safe Management of Radioactive Waste	
Reference Number	president order no. 56/2004	
Date Promulgated or Proclaimed	2004-05-04	Regulation

Comment #9739: Regulation NFGSDR

The regulation NFGSDR is based on the IAEA Safety Series 111-F" The Principles of Radioactive Waste Management" and contains the principles of radioactive waste management as well as the requirements for fulfilling of these principles.

Attachment #1381:

File name: CNCAN order 56 - safe management of radwaste.pdf

File type: PDF Document

Member State's Reference # order 56_2004

REGULATIONS / LAWS

Country: Romania Reporting Year: 2006

Name	NDR-02	
Title or Name	Norms for the clearance levels of radioactive originated by nuclear activities	
Reference Number	president order no. 62/2004	
Date Promulgated or Proclaimed	2004-05-04	Regulation

Attachment #1382:

File name: CNCAN Order 62_2004_clearance_regulation.pdf

File type: PDF Document

Member State's Reference # order 62_2004

Name	Law 320	
Title or Name	Law no. 320/2003 on the management including disposal of nuclear spent fuel and radioactive waste	
Reference Number	Law no. 320/2003 on the approval of GO no. 11/2003	
Date Promulgated or Proclaimed	2003-07-22	Law

Comment #9738: Regulation 320/2003

The law establish the legislative framework for the management of nuclear spent fuel and radioactive waste . According to this law the National Agency for Radioactive Waste(ANDRAD) is set up. ANDRAD is an authority which has as the main role the coordination of at the national level of the process of safe management of nuclear spent fuel and radioactive waste resulted from operation of research reactors, nuclear power plants, decommissioning of nuclear and radiological facilities and of radioactive waste resulted from application of radiation in industry, medicine, etc.

Name	Law 105	
Title or Name	Law no. 105/1999 on the ratification of the Vienna Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management	
Reference Number	Law 105/1999	
Date Promulgated or Proclaimed	1999-06-16	Law

Name	NDR-03	
Title or Name	Norms on the classification of radioactive waste	
Reference Number	approved by order 156/2005	
Date Promulgated or Proclaimed	2005-07-04	Regulation

Attachment #1383:

File name: CNCAN Order_156_2005_clasification of radwaste.pdf

File type: PDF Document

Member State's Reference # order 156_2005

REGULATIONS / LAWS

Country: Romania Reporting Year: 2006

Name	NDR-04	
Title or Name	Norms on the limiting of effluents release into environment	
Reference Number	approved by order 221/2005	
Date Promulgated or Proclaimed	2005-09-09	Regulation

Name	NDR-05	
Title or Name	Regulation for General requirments for near surface disposal of radioactive waste approbed by president order 400/2005	
Reference Number	Order 400_2005	
Date Promulgated or Proclaimed	2006-04-17	Regulation

Attachment #1384:

File name: CNCAN order 400_2005_near surface disposal.pdf

File type: PDF Document

Member State's Reference # order 400_2005

Name	NSN-15	
Title or Name	Regulation for decommissioning of nuclear facilities	
Reference Number	Order 181_2002	
Date Promulgated or Proclaimed	2002-12-02	Regulation

Attachment #1385:

File name: CNCAN order_181_2002_on decommissioning of nuclear facilities.pdf

File type: PDF Document

Member State's Reference # order 181_2002

Policies

Country: Romania | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #7422: national strategy

The national strategy has been approved by the Order of the Nuclear Agency President no. 844/2004 on the aprroval of the National strategy on medium and long term relating the management of nuclear spent fuel and radioactive waste, including disposal and decommissioning of nuclear and radiological facilities. this document establishes both strategy and policy of radioactive waste management.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Comment #7423: national strategy

The national strategy has been approved by the Order of the Nuclear Agency President no. 844/2004 on the aprroval of the National strategy on medium and long term relating the management of nuclear spent fuel and radioactive waste, including disposal and decommissioning of nuclear and radiological facilities. this document establishes both strategy and policy of radioactive waste management.

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	No
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

Comment #315: funding of waste management and decommissioning

Law 111/1996 (as amended) requires the issuing of a law on radwaste management & decommissioning funds. The draft law is under review. It will establish the mechanism for funding waste management and decomissioning.

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete

Policies

Country: Romania | **National Systems** | Reporting Year: 2006

16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below		

Comment #9740: Policies National Systems-Clearance

According to the NSR-01 the clearance levels are defined. The regulation NDR-02 on the clearance levels of materials originated from nuclear activities establises the methodologies for approving by competent authority of the conditional and unconditonal clearance levels of materials arising from nuclear activities inclusing from decommissioning.

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - Some
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	No
54	leachate treatment systems	No
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes

Policies

Country: Romania **Processing/Storage** Reporting Year: 2006

63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	Yes
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

Comment #9741: Policies Spent SRS-Registration

Each autorised waste management facility has own registry destinated only for the disused/spent sealed radioactive sources.

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

Comment #9743: Policies Spent SRS-Agreements

The import of sealed radioactive sources is issued to the authorised importers. The importers have to have the agreements with users in case the sealed sources become disused or spent sources. These agreement stipulate the obligation of the user to resent the spent sealed sources to the original supplyer or to transfer the spent sealed sources as radioactive waste to a authorised waste management facility.

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	Yes
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Comment #9744: Policies Spent SRS-Release / Disposal

Th free relase of SRS are prohibited in Romania. Each SRS has to be transfered to an authorised waste management facility.
In Romania there is a disposal facility which can accomodate the SRS.

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Comment #9742: Policies Import-Export-Radioactive Waste

According to the law 111/1996 the import of radioactive waste is prohibited.
According to the NDR-01 the export of radioactive waste is permited only into the countries which have technical and administrative capability and have the regulatory internal structure able to permit the safe management of radioactive waste.

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)

98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	No

Comment #310: decommmissioning fund

The draft law on waste management and decomissioning fund is under review. After entering into force of the law, the requirement for establishing of decommissioning fund will enter into force

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Comment #318: Time frame for decommissioning

After the facility ceases to operate,it shall remain authorized. The costs for maintaining safety and protection, the liabilities, the availability of decomissioning techniques and waste management capabilities will establish the time frame for decommissioning. However, the decommissioning plan and the decommissioning authorization of nuclear installations shall include time frame for the various stages of decommissioning.

Country Waste Profile Report for

Russian Federation

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

This page generated at 2007-11-02 17:41:03 (local Vienna time.)

Country Waste Profile Report for Slovakia

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 10:48:22

Waste Class Matrix(ces) Used/Defined

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Attachment #1328: Development of Waste Classification Framework for Reporting Slovakian Waste Management Data to IAEA

File name: Development of Waste Classification Framework for Reporting Slovakian Waste Management Data to IAEA.doc

File type: MS Office Document

Attachment #1329: Transport regulation

File name: 198 po korekt AJ.doc

File type: MS Office Document

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	**X**	**X**	**X**	
processed				**X**

Groups Overview

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Reporting Group: **01 RG**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Nuclear Regulatory Authority of the Slovak republic

Site Name	Facility Name	Facilities Defined		
NPP EBO	BTCC	processing		
	BSRSF	processing	storage	
	NPP V-1	processing	storage	
	NPP V-2	processing	storage	
	NPP A-1		storage	
NPP EMO	NPP EMO1,2		storage	
RU RAO	RU RAO			disposal

Reporting Group: **03 RG**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: VÚJE, Plc.- engineering, project and research organization

Site Name	Facility Name	Facilities Defined		
VÚJE	EBL	processing		
	ESL	processing		

Reporting Group 01 RG, Site Structure: NPP EBO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name:	NPP Jaslovske Bohunice
Location:	Jaslovske Bohunice
License Holder(s) :	Slovenske Elektrarne, a.s. Hranicna 12 827 36 Bratislava 212

The following list the waste management facilities that are located at this site.

Facility: BTCC

Description	Bohunice Treatment and Conditioning Complex

Facility: BSRSF

Description	SRS 2003 Bohunice Sealed Radioactive Sources Facility

Storage part of the "BSRSF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	Yes	No			
List SRS?	Yes				
Capacity	Sufficient capacity untill a new Integral Storage will be built at the territory of NPP A-1				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
MPV-256	tile hole	2000	No	No	No	Yes

Facility: NPP V-1

Description	Nuclear Power Plant V-1 Waste Storage - was planned for 30 years operation

Storage part of the "NPP V-1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	Nuclear Power Plant V-1 Waste Storage - was planned for 30 years operation				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LILWS-1	shaft	1978	No	No	No	No
LILWS-2	tank (stainless steel)	1978	No	No	No	No

Reporting Group 01 RG, Site Structure: NPP EBO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Facility: NPP V-2

Description	Nuclear Power Plants V-2 Waste Storage

Storage part of the "NPP V-2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	Nuclear Power Plants V-2 Waste Storage - was planned for 35 years operation				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LILWS-1	shaft	1984	No	No	No	No
LILWS-2	tank (stainless steel)	1984	No	No	No	No

Facility: NPP A-1

Description	NPP A-1 Waste Storage

Storage part of the "NPP A-1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LILWStor.	pool	1972	No	Yes	No	No
LILWStor.	tank (concrete)	1972	No	No	No	No
LILWStor.	tank (stainless steel)	1972	No	No	No	No
LILWStor.	trench (lined)	1972	No	Yes	No	No
LILWStor.	building	1972	No	No	No	No
LILWStor.	building	1972	No	No	No	No

Reporting Group 01 RG, Site Data: NPP EBO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name: NPP Jaslovske Bohunice

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage NPP A-1 Liquid	No	388	0	0	0	0	0	100	0	No
LILW-SL	Storage NPP A-1 Solid	No	3480	0	0	0	0	0	100	0	Yes
LILW-SL	Storage NPP V-1 Liquid	No	2486	100	0	0	0	0	0	0	No
LILW-SL	Storage NPP V-1 Solid	No	805	100	0	0	0	0	0	0	No
LILW-SL	Storage NPP V-2 Liquid	No	2677	100	0	0	0	0	0	0	No
LILW-SL	Storage NPP V-2 Solid	No	1924	100	0	0	0	0	0	0	No
LILW-SL	Storage NPP A-1 Solid	Yes	812	0	0	0	0	0	100	0	Yes
LILW-SL	Storage NPP V-1 Solid	Yes	472	100	0	0	0	0	0	0	No
LILW-SL	Storage NPP V-2 Solid	Yes	77	100	0	0	0	0	0	0	No
LILW-LL	Storage NPP A-1 Liquid	No	349	0	0	0	0	0	100	0	No
LILW-LL	Storage NPP A-1 Solid	No	1742	0	0	0	0	0	100	0	Yes
LILW-LL	Storage NPP A-1 Solid	Yes	406	0	0	0	0	0	100	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Chemical Precipitation				Yes
Compaction			decrease	
Decontamination			same	
Evaporation			same	
Filtration			same	
Incineration			increase	
Ion Exchange			decrease	
Metal Melting	Yes			
Rinsing			same	
Size Reduction			increase	
Super Compaction			increase	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
		R&D	Current practice	Past

Reporting Group 01 RG, Site Data: NPP EBO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Method	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			increase	
Macroencapsulation			same	
Solidification		Yes		
Stabilization		Yes		
Vitrification			same	

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Cs-137	2			No	Yes	0	4.88E-01	2006.03
	4.88E-01							
Sr-90	2			No	Yes	0	1.00E-06	
	1.00E-06							
Co-60	8			No	Yes	0	1.77E-01	2005.11
	1.77E-01							
Kr-85	1			No	Yes	0	1.85E+00	
	1.85E+00							
Sr-90	1			No	Yes	0	3.90E-01	2005.05
	3.90E-01							
Cs-137	1			No	Yes	0	2.20E-04	2005.02
	2.20E-04							
Cs-137	2			No	Yes	0	1.24E+00	1987.02
	1.24E+00							
Sr-90	2			No	Yes	0	9.88E-04	2003.09
	9.88E-04							
Cs-137	5			No	Yes	0	1.03E+01	2003.09
	1.03E+01							
Co-60	8			No	Yes	0	1.04E+00	2003.09
	1.04E+00							
Co-60		1		No	Yes	0	7.86E+03	2001.10
		7.86E+03						

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226	1		No	Yes	0	3.70E-02	
	3.70E-02						
Am-241	1		No	Yes	0	3.50E-05	
	3.50E-05						
Am-241		2	No	Yes	0	1.48E+01	1987.03
		1.48E+01					
Am-241	1		No	Yes	0	1.18E-02	1972.03
	1.18E-02						
Am-241	329		No	Yes	0	1.62E-02	2005.09
	1.62E-02						

Reporting Group 01 RG, Site Data: NPP EBO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Am-241	1188		No	Yes	0	1.43E+00	2002.04
	1.43E+00						
Ra-226	7		No	Yes	0	2.38E-02	1979.07
	2.38E-02						

Reporting Group 01 RG, Site Structure: NPP EMO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name: NPP Mochovce

Location: Mochovce

License Holder(s) : Slovenske Elektrarne, a. s.
Hranicna 12
827 36 Bratislava 212

The following list the waste management facilities that are located at this site.

Facility: NPP EMO1,2

Description	Nuclear Power Plant EMO 1,2 Waste Storage

Storage part of the "NPP EMO1,2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LILWStor.	tank (stainless steel)	1998	No	No	No	No
LILWStor.	shaft	1998	No	No	No	No

Reporting Group 01 RG, Site Data: NPP EMO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name: NPP Mochovce

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage NPP EMO1,2 Liquid	No	1938	100	0	0	0	0	0	0	No
LILW-SL	Storage NPP EMO1,2 Solid	No	422.5	100	0	0	0	0	0	0	No

Comment #5289: The additional characteristic of the waste

Unprocessed: solid (non-dispersible), solid (dispersible), liquid (aqueous), liquid (organic), sludge, resin

Reporting Group 01 RG, Site Structure: RU RAO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name: Near Surface Disposal Facility

Location: Mochovce

License Holder(s) : Slovenske Elektrarne, a.s.
Hranicna 12
827 36 Bratislava 212

The following list the waste management facilities that are located at this site.

Facility: RU RAO

Description	Republikove Ulozisko Radioaktivnych Odpadov

Disposal part of the "RU RAO" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	Yes
List SRS	No				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	11160	Capacity -planned (m3)	22320
Depth (m)	-2 to +3.5		
Host medium	crystalline rock (basalt)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1971	1975
site selection		1975	1978
design		1981	1997
construction		1986	1999
commissioning		1999	2001
operation		2001	
Additional Activities and Events			
EVENT: operating license granted		2001	

Reporting Group 01 RG, Site Data: RU RAO

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name: Near Surface Disposal Facility

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal RU RAO	Yes	3906	85	0	0	0	0	15	0	Yes

Comment #14769: Waste Disposal facilities/Class LILW-SL/Site RU RA

Volume of processed disposed waste 3 906 m3 is an exact number, only distribution (percentage by volume) is an estimation.

Reporting Group 03 RG, Site Structure: VÚJE

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name: Výskumný ústav jadrových elektrární,Plc.-engineering, project and research organisation

Location: Jaslovské Bohunice

License Holder(s) : VUJE, a. s.
Okružná 5
918 64 Trnava
Slovak Republik

The following list the waste management facilities that are located at this site.

Facility: EBL

Description	Experimental Bituminization Facility

Facility: ESL

Description	Experimental Incineration Facility

Reporting Group 03 RG, Site Data: VÚJE

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Full Name: Výskumný ústav jadrových elektrární,Plc.-engineering, project and research organisation

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Incineration		Yes	suspended	
Shredding and Compaction		Yes	suspended	
Size Reduction		Yes	suspended	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization		Yes	suspended	
Cementation		Yes	suspended	

REGULATORS

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Name	NRA SR
Full Name	Nuclear Regulatory Authority of the Slovak Republic/ Urad jadroveho dozoru SR
Division	Low and Internediate Level Waste Management
City or Town	Bratislava, division in Trnava

Name	MZ SR
Full Name	Public Health Authority of the Slovak Republic under Ministry of Health of the Slovak Republic/Urad verejneho zdravotnictva SR
Division	Division of Radiological Protection
City or Town	Bratislava

REGULATIONS / LAWS

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Name	Z 541/2004	
Title or Name	Law No. 541/2004 Coll. on the peaceful use of nuclear energy	
Reference Number	Law No. 541/2004 Coll.	
Date Promulgated or Proclaimed	2004-09-09	Law

Name	12/2001	
Title or Name	Regulation of Ministry of Health No. 12/2001 Coll on Requirements for Radiation Safety Assurance	
Reference Number	R No. 12/2001	
Date Promulgated or Proclaimed	2001-01-24	Regulation

Attachment #1332: This Regulation exists only in Slovak version.

File name: Regulation No. 12-2001 Coll. on Requirements for Radiation Safety Assurance.pdf

File type: PDF Document

Member State's Reference # Reg. No. 12/2001 Coll.

Name	V 46/2006	
Title or Name	Regulation No. 46/2006 Coll. on dual-use goods, which are under the UJD SR supervision	
Reference Number	UJD SR Regulation No. 46/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14755: Regulation V 46/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 47/2006	
Title or Name	Regulation No. 47/2006 Coll. on maximum limits of small quantities of nuclear material subject to exclusion from the third party liability regime	
Reference Number	UJD SR Regulation No. 47/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14756: Regulation V 47/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

REGULATIONS / LAWS

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Name	V 48/2006	
Title or Name	Regulation No. 48/2006 Coll. on details of notification of operational events and events during shipment, as well as details of investigation of their reasons	
Reference Number	UJD SR Regulation No. 48/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Name	V 49/2006	
Title or Name	Regulation No. 49/2006 Coll. on periodic nuclear safety review	
Reference Number	UJD SR Regulation No. 49/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14758: Regulation V 49/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 50/2006	
Title or Name	Regulation No. 50/2006 on details concerning the nuclear safety requirements for nuclear installations in respect of their siting, design, construction, commissioning, operation, decommissioning and closure of repository, as well as criteria for categorisation of classified equipment into safety classes	
Reference Number	UJD SR Regulation No. 50/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14759: Regulation V 50/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 51/2006	
Title or Name	Regulation No. 51/2006 Coll. on details concening requirements for provision of physical protection	
Reference Number	UJD SR Regulation No. 51/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14760: Regulation V 51/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

REGULATIONS / LAWS

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Name	V 52/2006	
Title or Name	Regulation No. 52/2006 Coll. on professional competency	
Reference Number	UJD SR Regulation No. 52/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14761: Regulation V 52/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 53/2006	
Title or Name	Regulation No. 53/2006 Coll. on details concerning requirements for provision of physical protection	
Reference Number	UJD SR Regulation No. 53/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14762: Regulation V 53/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 54/2006	
Title or Name	Regulation No. 54/2006 Coll. on accountancy for and control of nuclear material as well as notification of selected activities	
Reference Number	UJD SR Regulation No. 54/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14763: Regulation V 54/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 55/2006	
Title or Name	Regulation No. 55/2006 Coll. on details concerning emergency planning in case of nuclear incident or accident	
Reference Number	UJD SR Regulation No. 55/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14764: Regulation V 55/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

REGULATIONS / LAWS

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Name	V 56/2006	
Title or Name	Regulation No. 56/2006 Coll. on details concerning requirements for quality system documentation of authorisation holder, as well as details concerning quality requirements for nuclear installations, details concerning quality requirements for classified equipment and details concerning the scope of their approval	
Reference Number	UJD SR Regulation No. 56/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14765: Regulation V 56/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 57/2006	
Title or Name	Regulation No. 57/2006 Coll. on details concerning the requirements for shipment of radioactive material	
Reference Number	UJD SR Regulation No. 57/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14766: Regulation V 57/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	V 58/2006	
Title or Name	Regulation No. 58/2006 Coll. on details concerning the scope, content and method of preparation of nuclear installation documentation needed for decisions	
Reference Number	UJD SR Regulation No. 58/2006	
Date Promulgated or Proclaimed	2006-01-12	Regulation

Comment #14767: Regulation V 58/2006

Links to the unofficial translations of the drafted UJD regulations into all EU official languages are available at http://www.ujd.gov.sk/AMIS/www/ujd.nsf

Name	Z 126/2006	
Title or Name	Act No. 126/2006 Coll. on Public Health Services	
Reference Number	Act No. 126/2006 Coll.	
Date Promulgated or Proclaimed	2006-02-02	Law

Attachment #1422:

File name: Law No. 126-2006 on the public health protection - Slovak version.pdf

File type: PDF Document

Member State's Reference # Act 126/2006

Name	NV334/2006	
Title or Name	Governmental Regulation No. 334/2006 on details on Management of Institutional Radioactive Waste	
Reference Number	Governmental Regulation No. 334/2006 Coll.	
Date Promulgated or Proclaimed	2006-05-17	Regulation

Attachment #1423: Available only in the Slovak version.

File name: Nariadenie vlady SR c. 334 zo 17.5.2006 o podrobnostiach o nakladani s IRAO.pdf

File type: PDF Document

Member State's Reference # NV334/2006

Name	NV345/2006	
Title or Name	Governmental Regulation No. 345/2006 Coll. on Public Health Protection Requirements	
Reference Number	Governmental Regulation No. 345/2006 Coll.	
Date Promulgated or Proclaimed	2006-05-10	Regulation

Attachment #1424: Available only in the Slovak version.

File name: Nariadenie vlady SR c. 345 z 10.5.2006 o zakladnych bezp. poziadavkach na ochranu zdravia pracovnikov a obyvatelov.pdf

File type: PDF Document

Member State's Reference # NV345/2006

Name	NV348/2006	
Title or Name	Governmental Regulation No. 348/2006 on the control of high-activity sealed radioactive sources and orphan sources	
Reference Number	Governmental Regulation No. 348/2006	
Date Promulgated or Proclaimed	2006-05-17	Regulation

Attachment #1425: Available only in the slovak version.

File name: Nariadenie vlady SR c. 348 zo 17.5.2006 o poziadavkach na zabezpecenie kontroly vysokoaktivnych ziaricov a opustenych ziaricov.pdf

File type: PDF Document

Member State's Reference # NV348/2006

Name	NV349/2006	
Title or Name	Governmental Regulation No. 349/2006 Coll. on details concerning the radiation protection requirements for shipment of radioactive substances and radioactive materials	
Reference Number	Governmental Regulation No. 348/2006 Coll.	
Date Promulgated or Proclaimed	2006-05-17	Regulation

Attachment #1426: Available only in the Slovak version.

File name: Nariadenie vlady SR c. 349 zo 17.5.2006 o poziadavkach na zabezpecenie radiacnej ochrany pri preprave ra-ziaricov a ra-latok.pdf

File type: PDF Document

Member State's Reference # NV349/2006

MILESTONES

Country: Slovakia (Slovak Republic) Reporting Year: 2006

Start Year or Reference Year:	1986	End Year	2006
Description of Milestone			
The Experimental Bituminisation Facility was in operation since 1986 and Decisions of the Nuclear Regulatory Authority of the Slovak Republic that approved its operation were extended every three years. The last Decision, which approved its operation, was No. 93/2001. Since 31.12.2004 this facility is out of operation.UJD SR decision on decommissioning of this facility was issued in 2006.			

Start Year or Reference Year:	1987	End Year	2006
Description of Milestone			
The Experimental Incinerator with additional cementation facility was used only for experimental purposes since 1987 and Decisions of the Nuclear Regulatory Authority of the Slovak Republic which approved its operation were extended every three years. The last Decision which approved its operation was No. 34/2003. Since 31.12.2004 this facility is out of operation. UJD SR decision on decommisioning of this facility was issued in 2006.			

Start Year or Reference Year:	1995	End Year	2005
Description of Milestone			
The Bituminisation Facility PS 44 has been in operation since 1995. Its operation was approved by the Decision of the Nuclear Regulatory Authority of the Slovak Republic No. 122/1995.			

Start Year or Reference Year:	1999	End Year	2005
Description of Milestone			
The National Near Surface Repository in Mochovce is determined for disposal of low and intermediate level short-lived radwaste in special fibre reinforced concrete (FRC) containers as additional engineering barrier of repository. The repository construction was finished in November 1992. Modifications of facility as well as additional documentation recommended by IAEA experts mission were finished in 1998 - 1999. Its commissioning was approved by the Decision of the Nuclear Regulatory Authority of the Slovak Republic No. 335/1999. Then after assessment of repository commissioning report, in September 2001, UJD issued permission for operation of its first double row.			

Start Year or Reference Year:	1999	End Year	2005
Description of Milestone			
The Bohunice Treatment and Conditioning Complex was commissioned in 1999. Its commissioning was approved by Decisions of Nuclear Regulatory Authority of the Slovak Republic No. 416/1999 and No. 111/2000. Operational authorisation for Bohunice Treatment and Conditioning Complex was issued by UJD at the beginning of 2001 by Decision No.5/2001.			

Start Year or Reference Year:	2000	End Year	2005
Description of Milestone			
The Bituminisation Facility PS 100 was commisssioned in 2000. Its commissioning was approved by the Decision of the Nuclear Regulatory Authority of the Slovak Republic No. 124/2000. Its operation was approved by Decision of the Nuclear Regulatory Authority of the Slovak republic No. 11/2002.			

Start Year or Reference Year:	2003	End Year	2006
Description of Milestone			
At the end of 2003 was issued UJD Permission No. 236/2003 for design and construction of a new Final Centre for Conditioning and Treatment of Liquid Radioactive Waste in Mochovce. The construction portion was finished in 2006.			

Start Year or Reference Year:	2004	End Year	2006
Description of Milestone			
UJD permission for siting for an Integral Storage was issued at the end of 2004.This Integral Storage is dedicated for safe storage of processed radioactive waste from decommissioning of NPP A-1, NPP V-1, NPP V-2 in Jaslovské Bohunice, for captured contaminated materials within the territory of the Slovak Republic and for radwaste which do not comply with waste acceptance criteria for Mochovce National Near Surface Repository.			

Policies

Country: Slovakia (Slovak Republic) Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Attachment #1331: A new Atomic Act was issued in September 2004.

File name: Atómový zákon è. 541-2004 Z. z..pdf

File type: PDF Document

Member State's Reference # 541/2004

Attachment #1427: English version of the Slovak Atomic Act.

File name: AtomicAct.pdf

File type: PDF Document

Member State's Reference # Act 541/2004

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete

Policies

Country: Slovakia (Slovak Republic) **National Systems** Reporting Year: 2006

17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below		

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes

Policies

61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	Yes

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	No
110	Currently, are any of your country’s wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)

Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)

71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	Yes
75	If the answer was yes, are any registries used only for disused/spent SRS?	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)

Policies

Country: Slovakia (Slovak Republic) **Decommissioning** Reporting Year: 2006

98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Slovenia

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 10:48:50

Waste Class Matrix(ces) Used/Defined

Country: Slovenia, Republic of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #14752: Waste Matrix IAEA Def.

National Classification of radioactive waste (regulation JV7, come into force in 2006).
Used nationwide by all groups.

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB’s definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Slovenia, Republic of Reporting Year: 2006

Reporting Group: **ARAO**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: ARAO- Agency for Radwaste Management is a non-profit organisation of the Slovene Government which provides a state-owned public service for radioactive waste management. The main objective of the ARAO is to provide efficient, safe and responsible management for all types of nuclear waste.

Site Name	Facility Name	Facilities Defined		
BRINJE R	SF STORAGE		storage	
BRINJE S	CISF		storage	
KRSKO NPP	KRSKO NPP	processing	storage	
LILW Rep.	LILW Rep.			disposal

Attachment #1339: ARAO Annual report 2002

File name: ARAO_annual_ report_2002.pdf

File type: PDF Document

Member State's Reference # ARAO Annual report 2002

Attachment #1341: ARAO Annual report 2003

File name: ARAO_AnnualReport_2003.pdf

File type: PDF Document

Member State's Reference # ARAO Annual report 2003

Attachment #1345: ARAO Annual report 2005

File name: ARAO_annual_ report_2005.pdf

File type: PDF Document

Member State's Reference # ARAO Annual report 2005

Attachment #1417: ARAO Annual report 2006

File name: ARAO_annual_ report_2006.pdf

File type: PDF Document

Member State's Reference # ARAO Annual report 2006

Reporting Group ARAO, Site Structure: BRINJE R

Country: Slovenia, Republic of Reporting Year: 2006

Full Name: Institut Josef Stefan Research Reactor Centre, TRIGA Mark II research reactor

Location: Research Reactor Centre, Brinje (in old document Podgorica) near Ljubljana, Slovenia

License Holder(s) : Institut Josef Stefan Research Reactor Centre
Jamova 39, SI-1000, Ljubljana, Slovenia
tel: +386 1 477-3900 (operator)
fax: +386 1 2519-385
http://www.ijs.si/

The following list the waste management facilities that are located at this site.

Facility: SF STORAGE

Description	There are two spent fuel storage pools which are an integral part of TRIGA Mark II research reactor.

Storage part of the "SF STORAGE" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	Yes	No			
SRS	No	No			
List SRS?	No				
Capacity	The capacity of the new pool is 195 spent fuel elements.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Pool-Old	pool	1966	Yes	No	No	No
Pool-New	pool	1992	No	No	No	No

Comment #12165: Storage Facility SF STORAGE

IJS Reactor Infrastructure Centre

There are two interim storage pools which are part of the IJS Reactor Infrastructure Centre. The old storage pool is not in use. The new storage pool is maintained operational and prepared for immediate use if necessary. Both pools have been empty since 1999, when all spent fuel elements (total 219) were shipped to the USA for final disposal.

Reporting Group ARAO, Site Data: BRINJE R

Country: Slovenia, Republic of Reporting Year: 2006

Full Name: Institut Josef Stefan Research Reactor Centre, TRIGA Mark II research reactor

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Waste Class	Status
HLW (in Storage)	Waste data available, will not be reported.

Reporting Group ARAO, Site Structure: BRINJE S

Country: Slovenia, Republic of Reporting Year: 2006

Full Name:	Central Storage Facility for Radioactive Waste in Brinje (CISF)
Location:	Research Reactor Centre, Brinje (near Ljubljana), Slovenia
License Holder(s) :	ARAO - Agency for Radwaste Management, Parmova 53, SI-1000 Ljubljana, Slovenia

The following list the waste management facilities that are located at this site.

Facility: CISF

Description	Central Storage Facility for Radioactive Waste in Brinje. A storage for low and intermediate level waste from small producers (medicine, industry and research).

Storage part of the "CISF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
SRS	Yes	No			
List SRS?	Yes				

Capacity	~500 m3.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CISF-LILW	building	1986	No	No	No	Yes

Comment #12166: Storage Facility CISF

The storage is a near-surface concrete building with the roof covered with a soil layer. The building is subdivided by concrete walls into nine storage sections and an entrance area. The ground plan of the facility is 10.6 m x 25.7 m with a height of 3.6 m. The useful capacity of the storage is about 500 m3, and the remaining small area is intended for workers, for loading and unloading the waste and for internal transport. The storage section at the back end of the building is deeper relative to the level of the other sections, and is intended for storage of more active spent sources. The facility is equipped with a ventilation system for reducing radon concentration and air contamination in the storage facility. The water and sewage collecting system is designed as a closed system to retain all liquids from the storage facility in the sump. Liquids are discharged after the measurements of the radioactive contamination which has to be below the limitation in the regulation. The electricity supply system is used for illumination of the storage facility, for heating of auxiliary rooms and for the powering of ventilation. The storage facility is also protected by an alarm system which is connected to a 24-hour security service.

Reporting Group ARAO, Site Data: BRINJE S

Country: Slovenia, Republic of Reporting Year: 2006

Full Name: Central Storage Facility for Radioactive Waste in Brinje (CISF)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	26	0	0	60	40	0	0	0	Yes
LILW-SL	Storage	Yes	11	0	0	96	4	0	0	0	Yes
LILW-LL	Storage	No	17	60	0	0	40	0	0	0	Yes
LILW-LL	Storage	Yes	27	39	0	0	1	0	60	0	Yes

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Co-60			248	Yes	No	3	3.80E+01	2001.01 (estimate)
			3.80E+01					
Co-60			1	No	Yes	1	1.60E+03	2004.01 (estimate)
			1.60E+03					

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Am-241		10000	No	Yes	3	3.00E+02	2004.01 (estimate)
		3.00E+02					
Ra-226		2	Yes	No	4	2.70E+01	2000.01 (estimate)
		2.70E+01					

Comment #7641: Ra-226 sources

Number 2 means there is 2 packing units (containers) with Ra sources and not number of sources.

Reporting Group ARAO, Site Structure: KRSKO NPP

Country: Slovenia, Republic of Reporting Year: 2006

Full Name:	Krsko Nuclear Power Plant
Location:	Krsko Nuclear Power Plant Vrbina 12, SI-8270 Krsko, Slovenia
License Holder(s) :	Krsko Nuclear Power Plant Vrbina 12, SI-8270 Krsko, Slovenia tel: +386 7 480 20 00 http://www.nek.si

Comment #14746: Management of KRSKO NPP (http://www.nek.si)

Under the Contract between the Government of the Republic of Slovenia and the Government of the Republic of Croatia on the regulation of status and other legal relations connected to investment in NEK, its exploitation and decommissioning, and the Memorandum of Association, both of which entered into force on 11 March 2003, NEK is organised as a limited liability company or l.l.c.

The basic capital of NEK is divided into two equal shares owned by the partners GEN energija l.l.c. Ljubljana and Hrvatska Elektropriveda p.l.c., Zagreb. NEK produces and supplies electricity exclusively in favour of the two partners, who each have the right and obligation to use 50% of its total output.

Comment #14747: About KRSKO NPP (http://www.nek.si)

NEK has been in operation for twenty-five years. Projected life-time is until 2023. Over the course of the operational years NEK have witnessed a great many social changes and technological upgrades which have affected their work.

If twenty-five years ago their main aim was adapting to high professional and technical standards of nuclear technology, today the impact of market forces and public acceptability are equally important. If twenty-five years ago they were not yet considering the need to exchange domestic and international operational experience, today this is part of their everyday routine.

All of those changes, and in particular people's increased environmental awareness, are reflected in their everyday operation and in NEK's long-term strategy. They are reflected in the high level of nuclear safety. They guarantee, in the stability and competitiveness of their electricity production in comparison to other energy sources and, last but not least, in their objectives of achieving NEK's public acceptability.

Over the course of twenty-five years they have formed a qualified team which is strongly committed to their goals and to the values of safety culture. On the basis of know-how, continuous training, safe operation and operating efficiency, they are realizing an optimistic vision of the second half of NEK's lifecycle.

Attachment #1418: NEK annual report 2004

File name: NEK_Annual_Report_2004.pdf

File type: PDF Document

Attachment #1419: NEK annual report 2005

File name: NEK_Annual_Report_2005.pdf

File type: PDF Document

Attachment #1420: NEK annual report 2006

File name: NEK_Annual_Report_2006.pdf

File type: PDF Document

The following list the waste management facilities that are located at this site.

Facility: KRSKO NPP

Description	Krsko NPP processing and storage facility

Processing part of the "KRSKO NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1983, Estimate

Storage part of the "KRSKO NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	No	No
HLW	Yes	No			
SRS	No	No			
List SRS?	No				
Capacity	Solid radwaste storage facility (LILW) with capacity of app.2500-2800m3 and the decontamination building. Total storage capacity of the spent fuel pool is 1694 fuel positions.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LILW-store	building	1983	No	No	No	No
SF-pool	pool	1983	No	No	No	No
LILW-decon	building	1998	No	No	No	No

Comment #12160: Spent Fuel Management Facilitiy in Krsko NPP

Spent Fuel Management Facilitiy

The Republic of Slovenia has no off-site spent fuel management facilities. The spent fuel that is generated by the operation of the Krsko NPP is managed in storage facility which are integral parts of these nuclear facility.

The Fuel Handling Building is operated under the plant’s license and is therefore not considered an independent nuclear facility. The fuel handling building consists of a spent fuel pool and the related fuel handling system which enables the handling of spent fuel.

Comment #12161: LILW Facilities in Krsko NPP

The Krsko NPP includes the following buildings for radioactive waste management:
Auxiliary Building, where the systems for solid, liquid and gaseous waste processing are located. The building is located adjacent to the Fuel Handling Building and the Reactor Building within the Radiologically Controlled Area. The main activities related to waste management in this building are pre-treatment (waste collection, segregation, chemical adjustment, decontamination), treatment (radionuclide removal, volume reduction) and conditioning (immobilisation, packaging). The conditioned waste is transported to the Solid Radwaste Storage Facility by a forklift or an electric-powered cart using a special shield when necessary.

Solid Radwaste Storage Facility, an interim storage. Its operating license was extended in 1988 due to the lack of a LILW repository. It is a reinforced concrete structure, seismically qualified, located adjacent to the Auxiliary Building. Total area is 1470 m2 after an area optimisation project, applying a special steel structure to support the storage of waste on the second level, the useful volume was increased to allow waste storage for a longer period of time. The storage time in the Solid Radwaste Storage Facility is variable and is dependent on waste generation rates and waste management plans. The facility has provisions for storing different solid radioactive wastes separately and retrieving them for further processing (supercompaction, incineration, melting, clearance after decay of radionuclide) or disposal at a later time.

Decontamination Building, an interim storage, built for decay storage for two old steam generators and radioactive waste produced through replacement of steam generators and other larger components. The building meets the requirements for LILW storage. The outer wall and the roof slab design were governed by the radiological shielding requirements.

Reporting Group ARAO, Site Data: KRSKO NPP

Country: Slovenia, Republic of | Reporting Year: 2006

Full Name: Krsko Nuclear Power Plant

Inventory Reporting Date: December 2006 | Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	985	0	0	0	0	0	100	0	Yes
LILW-SL	Storage	Yes	2258	100	0	0	0	0	0	0	Yes

Comment #14753: LILW-SL explanation

LILW-SL are stored in two different facilities:
- 986 m3 in the Decontamination Building (two old steam generators)
- 2258 m3 in the Solid Radwaste Storage Facility (solid radwaste)

Waste Class	Status
HLW (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Evaporation			same	
Filtration			same	
Incineration			same	
Ion Exchange			same	
Metal Melting	Yes			
Segregation/Sorting			same	
Size Reduction			increase	
Super Compaction			increase	
Thermal Treatment (non incineration)			increase	

Comment #7627: Reference:

ESD-TR-03/97 rev.2

Comment #7628: Incineration

NPP Krsko does not have own incineration facility.
Drums with combustible waste were sent for incineration in Studsvick. There were two incineration campaigns, the first took plase in 1998 and the second one in 2002.

Comment #7629: Thermal Treatment - IDDS

The liquid radioactive wastes are mainly evaporator bottoms and spent ion exchange resins. With a special system for drying the waste (IDDS – The »In-Drum Drying System«) in the drums, the water is entirely excluded from the waste.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bitumінization				Yes
Cementation			decrease	
Containerization			same	
Solidification			increase	

Reporting Group ARAO, Site Structure: LILW Rep.

Country: Slovenia, Republic of Reporting Year: 2006

Full Name: Planned repository for LILW

Location: not selected yet

License Holder(s) : future facility, not licensed

Comment #7599: The location of disposal of LILW

The final location of disposal of LILW has not been selected yet. According to the plans, the repository siting should be concluded by 2008 and repository constructed by 2013.

The following list the waste management facilities that are located at this site.

Facility: LILW Rep.

Description	planned LILW near-surface repository

Disposal part of the "LILW Rep." facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	Yes
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	20000
Depth (m)			
Host medium	unknown (site not selected)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment	Yes	1995	2004
site selection	Yes	2003	2008
design	Yes	2005	2008
construction	Yes	2009	2010
commissioning	Yes	2010	2011
operation	Yes	2011	2038
closure	Yes	2038	
institutional control	Yes		2338

REGULATORS

Country: Slovenia, Republic of

Reporting Year: 2006

Name	SNSA
Full Name	Slovenian Nuclear Safety Administration
Division	Division of Nuclear and Radioactive Materials Divison of Inspection Control
City or Town	Ljubljana

Comment #7597: SNSA

Slovenian Nuclear Safety Administration
Zelezna cesta 16
P.O. Box 5759
SI - 1001 Ljubljana
Slovenia
Phone: +386 1 472 11 00
Fax: +386 1 472 11 99
E-mail: SNSA@gov.si
Web site: http://www.ursjv.gov.si/

Attachment #1340: SNSA Annual Report 2003

File name: SNSA_AnnualReport_2003.pdf

File type: PDF Document

Attachment #1343: SNSA Annual Report 2004

File name: SNSA_AnnualReport_2004.pdf

File type: PDF Document

Attachment #1344: SNSA Annual Report 2005

File name: SNSA AnnualReport 2005.pdf

File type: PDF Document

Attachment #1416: SNSA Annual Report 2006

File name: SNSA_AnnualReport_2006.pdf

File type: PDF Document

REGULATORS

Country: Slovenia, Republic of Reporting Year: 2006

Name	SRPA
Full Name	Slovenian Radiation Protection Administration
Division	Area of radiation practices and use of radiation sources in health and veterinary care
City or Town	Ljubljana

Comment #9720: Regulator SRPA

Slovenian Radiation Protection Administration
Trzaska cesta 21
SI-1000 Ljubljana
Slovenia
Phone: +386 1 478 87 09
Fax: +386 1 478 87 15

The 2002 Act gives the competence in the area of radiation practices and use of radioactive sources in heath and veterinary care to the Slovenian Radiation Protection Administration (SRPA), which was established in March 2003 within the Ministry of Health.

The SRPA performs technical, administrative, inspection and development tasks in the area of radiation practices and use of radiation sources in health and veterinary care; health protection of people against detrimental effect of ionising radiation; systematic inspection of working and living premises due to exposure of people to the natural radiation sources; implementation of monitoring of radioactive contamination of foodstuffs and drinking water; reduction, restriction and prevention of health detrimental effects of non-ionising radiation and assessment of compliance and authorization of radiation protection experts. In the scope of radiation protection the SRPA issues the approvals to evaluation of the protection of the exposed workers of the radiation and extend the radiation risks for exposed workers at given work places.

REGULATIONS / LAWS

Country: Slovenia, Republic of Reporting Year: 2006

Name	ZVISJV	
Title or Name	ACT ON IONISING RADIATION PROTECTION AND NUCLEAR SAFETY with amendments	
Reference Number	Off. Gaz. RS, 67/2002	
Date Promulgated or Proclaimed	2002-10-01	Law

Comment #7595: ZVISJV with amendments

In July 2002 the Parliament of the Republic of Slovenia adopted a new Act on Ionising Radiation Protection and Nuclear Safety (Off. Gaz. RS, 67/2002 - hereinafter referred to as “2002 Act”).

As defined in the first Article of this act, its main purpose is “to regulate ionising radiation protection, with the aim of reducing the detrimental effects on health and reducing to the lowest possible level radioactive contamination of the environment due to ionising radiation resulting from the use of radiation sources, while at the same time enabling the development, production and use of radiation sources and performing radiation practices”. It also regulates radioactive waste and spent fuel management.

An Act amending the 2002 Act was adopted on 25 February 2003. It provides that the Slovenian Government shall prepare an amended National Program for the Protection of the Environment as regards radioactive waste and spent fuel management by the end of 2004 and submit it to the Parliament for adoption. The site for a low- and intermediate-level waste repository must be approved by 2008 and licensed for operation by 2013.

New amendments of the 2002 Act were adopted on 29 April 2004. The amendments were introduced to reflect the fact that from 1 May 2004 Slovenia is a Member State of the European Union. The aim of this last revision was mainly to harmonise the provisions of the act with the European Union’s legal requirements, especially in the area of shipment of radioactive waste and sources.

The 2002 Act also provides that the regulations which have been issued on the basis of the previous 1984 and 1980 Acts shall apply until new regulations, which are to be adopted pursuant to provisions of the 2002 Act, are issued.

Based on the 2002 Act, twelve decrees and regulations have been issued (Appendix II). All other decrees and regulations are expected to be adopted and issued in 2004 and early 2005.

Attachment #1336: ACT ON IONISING RADIATION PROTECTION AND NUCLEAR SAFETY Unofficial translation of the original in Slovene language published in Official Gazette of Republic of Slovenia, no. 67/2002

File name: ACT_ON_IONISING_RADIATION_PROTECTION_AND_NUCLEAR_SAFETY.pdf

File type: PDF Document

Member State's Reference # Off. Gaz. RS, 67/2002

REGULATIONS / LAWS

Name	Z-3	
Title or Name	Regulation Z-3 "On mode of collecting, accounting, processing, storing, final disposal and release of radioactive waste into the environment", - Derogation of Articles 31.,32. in 33.èlena. -> UV1: Decree on practices involving radiation - Derogation of all articles except Article 20 (in use until 27.5.2007). -> JV7: Regulation on radioactive waste and spent fuel management	
Reference Number	Official Gazette SFRY, 40/86	
Date Promulgated or Proclaimed	1986-07-18	Regulation

Attachment #1337: Regulation Z-3 "On mode of collecting, accounting, processing, storing, final disposal and release of radioactive waste into the environment"

File name: Regulatory Z-3.pdf

File type: PDF Document

Member State's Reference # Off. Gaz., SFRY, No. 40/86

Name	E-1	
Title or Name	Regulation E-1 'On siting, construction, commissioning, start-up and exploitation of nuclear facilities' (with appendix on QA)	
Reference Number	Off. Gaz., SFRY, No. 52/88	
Date Promulgated or Proclaimed	1988-08-26	Regulation

Name	UV3	
Title or Name	Decree on the Areas of Limited Use of Land Due to Nuclear Facility and on Conditions for Construction in such Areas - UV3	
Reference Number	Off. Gaz: RS, 36/2004	
Date Promulgated or Proclaimed	2004-04-28	Regulation

Name	UV8	
Title or Name	Decree on the Criteria for Determining the Amount of Compensation Due to the Limited Use of Land in the Area of Nuclear Facility - UV8	
Reference Number	Off. Gaz. RS, 134/2003	
Date Promulgated or Proclaimed	2003-12-31	Regulation

REGULATIONS / LAWS

Country: Slovenia, Republic of Reporting Year: 2006

Name	ARAO est.	
Title or Name	Decree on Establishment of a Public Agency for Radwaste Management	
Reference Number	Off. Gaz. RS, 5/91, 45/96, 32/99, 38/2001)	
Date Promulgated or Proclaimed	1991-02-09	Regulation

Name	Public S.	
Title or Name	Decree on Mode and Conditions of Discharging the Public Service on Radioactive Waste Management	
Reference Number	Off. Gaz. RS, 32/99, 41/04	
Date Promulgated or Proclaimed	1999-05-21	Regulation

Name	JV11	
Title or Name	Regulation on inputs from and outputs in the EU member states and on import and export of radioactive waste	
Reference Number	Official Gazette RS, 60/2004	
Date Promulgated or Proclaimed	2004-06-03	Regulation

Name	FV1	
Title or Name	Regulation on physical protection of nuclear materials, nuclear facilities and radiation facilities	
Reference Number	Official Gazette RS, 31/2005	
Date Promulgated or Proclaimed	2005-03-25	Regulation

Name	ZSFR-UPB1	
Title or Name	Act on Fund for Financing Decommissioning of the Krško Nuclear Power Plant and Disposal of Radioactive Waste from the Krško NPP	
Reference Number	Official Gazette RS, No. 47/2003	
Date Promulgated or Proclaimed	2003-05-22	Law

REGULATIONS / LAWS

Country: Slovenia, Republic of Reporting Year: 2006

Name	BHRNEK	
Title or Name	Act Ratifying the Treaty between the Government of the Rep.of Slovenia and the government of the Rep.of Croatia on the regulation of the status and other legal relations regarding investment, exploitation and decommissioning of the Krsko NPP and Joint Declaration at the time of signature of the Treaty between the Gov. of the Rep. of Slovenia and the gov. of the Rep. of Croatia on the regulation of the status and other legal relations regarding invest., exploit. and decom. of the Krsko NPP	
Reference Number	Official Gazette RS-MP, No. 23/2003	
Date Promulgated or Proclaimed	2003-03-06	Law

Name	UV2	
Title or Name	Decree on dose limits, radioactive contamination and intervention levels	
Reference Number	Official Gazette RS, 49/2004	
Date Promulgated or Proclaimed	2004-04-30	Regulation

Name	JV7	
Title or Name	Regulation on radioactive waste and spent fuel management	
Reference Number	Official Gazette RS, 49/2006	
Date Promulgated or Proclaimed	2006-06-01	Regulation

Name	UV1	
Title or Name	Decree on practices involving radiation - UV1	
Reference Number	Official Gazette RS, 48/2004	
Date Promulgated or Proclaimed	2004-04-30	Regulation

MILESTONES

Country: Slovenia, Republic of

Reporting Year: 2006

Start Year or Reference Year:	1966	End Year	
Description of Milestone			
The Research Reactor TRIGA Mark II is operated by Josef Stefan Institute. It was put into operation in May 1966. The reactor was delivered by General Atomics, the reactor tank and body were built by Slovenian companies. Main purpose of the research reactor is research, training and isotopes production.			

Start Year or Reference Year:	1974	End Year	
Description of Milestone			
The Krsko NPP construction was started. It is a Westinghouse two-loop pressurised water reactor. It initial power was 632 MWe.			

Start Year or Reference Year:	1983	End Year	
Description of Milestone			
The Krsko NPP began with commercial operation in January 1983.			

Start Year or Reference Year:	1984	End Year	
Description of Milestone			
In year 1984 entered into force one of the most important act "Act on Radiation Protection and the Safe Use of Nuclear Energy" (Off. Gaz. SFRY, No. 62/84).			

Start Year or Reference Year:	1986	End Year	
Description of Milestone			
The Central Storage Facility for Radioactive Waste in Brinje was put into operation in 1986. It is intended for storage of low and intermediate level radioactive waste arising from medical, industrial and research applications. The storage facility is situated at the Research Reactor Centre, about 15 km north-east of Ljubljana.			

Start Year or Reference Year:	1987	End Year	
Description of Milestone			
The Slovenian Nuclear Safety Administration (SNSA) was established in 1987. SNSA is competent in the area of nuclear safety and radioactive waste management. Previously, the functions of the regulatory body were held by the Committee of Energy and Industry.			

Start Year or Reference Year:	1991	End Year	
Description of Milestone			
The Agency for Radwaste Management is founded by the Government of Slovenia as a public eneterprise, responsible for final disposal of radioactive waste.			

Start Year or Reference Year:	1994	End Year	
Description of Milestone			
The Act on the Fund for financing Decommissioning of the Krsko NPP and disposal of Radioactive Waste from the Krsko NPP was adopted in the end of year 1994. By this act was established The Financial Fund for Decommissioning of Nuclear Power Plant Krsko.			

Start Year or Reference Year:	2002	End Year	
Description of Milestone			
In July 2002 the Parliament of the Republic of Slovenia adopted a new Act on Ionising Radiation Protection and Nuclear Safety. The Act entered into force on 1 October 2002. Its main purpose is “to regulate ionising radiation protection, with the aim of reducing the detrimental effects on health and reducing to the lowest possible level radioactive contamination of the environment due to ionising radiation resulting from the use of radiation sources, while at the same time enabling the development, production and use of radiation sources and performing radiation practices”. It also regulates radioactive waste and spent fuel management.			

MILESTONES

Country: Slovenia, Republic of | Reporting Year: 2006

Start Year or Reference Year:	2003	End Year	
Description of Milestone			
On 7 March 2003 the Agreement between the Governments of the Republic of Slovenia and the Republic of Croatia on the status and other legal issues related to investments, exploitation and decommissioning of the Nuclear Power Plant Krško entered into force (it was signed on 19 December 2001).			

Start Year or Reference Year:	2004	End Year	
Description of Milestone			
In November 2004 the Ministry of the Environment and Spatial Planning officially started the spatial planning procedure as part of site selection process, aiming at developing the National detailed site development plan for LILW.			

Start Year or Reference Year:	2004	End Year	
Description of Milestone			
On the basis of the Detailed Plan of National Importance for the LILW Repository, ARAO Agency at the end of the year 2004 invited all Slovenian local communities to cooperate in environmental setting of the LILW repository.			

Start Year or Reference Year:	2004	End Year	
Description of Milestone			
In accordance with the provisions of the Treaty between the Government of the Republic of Slovenia and Republic of Croatia on regulation of status and other legal relationships relating to investments into the Krsko nuclear power plant, the Slovenian and Croatian government adopted the first revision of the Program of NPP Krsko decommissioning, SF and LILW disposal.			

Start Year or Reference Year:	2005	End Year	
Description of Milestone			
In October 2005 the National programme for radioactive waste management was adopted by the Government and in February 2006 a resolution on National Programme on radioactive waste and spent fuel management passed also the Parliamentary procedure.			

Start Year or Reference Year:	2005	End Year	
Description of Milestone			
In November 2005 three sites (locations) in voluntaries local communities were confirmed by the Government.			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
Regarding the procedure of siting the LILW repository two sites (locations) were remained. On the potential sites investigastion works has started.			

Policies

Country: Slovenia, Republic of — Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #7612: National Radwaste management programme

In October 2005 the National programme for radioactive waste management was adopted by the Government and in February 2006 a resolution on National Programme on radioactive waste and spent fuel management passed also the Parliamentary procedure.

The document covers the managements of waste from all possible sources of radioactive waste. Besides the waste from the NPP it also includes institutional radioactive waste and waste from past mining activities as well as NORM and TENORM. It covered the period of 10 years. It is planned to upgrade this comprehensive programme by the implementation programmes on different aspects of waste management and start their implementation.

Comment #7613: The Fund for Financing the Decommissioning of NPP

The Fund for Financing the Decommissioning of the Krsko NPP and for the disposal of its radioactive waste was established by the Act on the Fund for Financing Decommissioning of the Krsko NPP and Disposal of Radioactive Waste from Krsko NPP (Off.Gaz. RS, No.75/94, 35/96). The Fund would be collect finances from the contributions of each produced kWh at the plant. However, due to the unresolved legal and ownership status of Krsko NPP, required funds are only partially collected.

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Partially

Comment #14754: Operational programmes for radwaste management

Operational programmes for radwaste and spent fuel management were prepared and have been in adoptional process.

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

Policies

Country: Slovenia, Republic of | **National Systems** | Reporting Year: 2006

Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

Comment #7614: Preliminary waste AC for future LILW

Slovenia has preliminary waste acceptance criteria for future LILW repository (generic location).

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes

If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.

52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)

Does your country have written policies or written procedures for the following:

60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

Comment #7615: Procedures

Operators have developed their own procedures. They are not written on National level.

Processing and storing - nuclear fuel cycle waste separately from non-nuclear fuel cycle waste.
Disposing - according to the waste type (LILW, SF, LILW LL etc.) and not according to the waste orgin (from nuclear fuel cycle or non-nuclear fuel cycle).

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
110	Currently, are any of your country’s wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	No

Comment #7639: Comment

There are certain requirements by other mechanisms.

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Comment #7640: There are limitations by other mechanisms.

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

Policies

Country: Slovenia, Republic of | **Decommissioning** | Reporting Year: 2006

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for
Spain
Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 15:25:50

Waste Class Matrix(ces) Used/Defined

Country: Spain, Kingdom of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #132: use of the IAEA Def matrix

The CSN (see Regulators) is the only body in Spain responsible for radiation protection and nuclear safety, regardless of the type of radioactive material or waste. Thus, the CSN has competence over all type of waste (Matrix IAEA Def.-
LILW-SL, LILW-LL, HLW).

The Ministry of Industry, Tourism and Trade is responsible for defining the policy and for establishing the regulations on radioactive waste, so it has competence over all type of waste (Matrix IAEA Def.- LILW-SL, LILW-LL, HLW).

Comment #349: explanation of classes used

Although no explicit definition exists for LILW-SL in regulations currently in force, limits are defined according to the safety objectives set by safety authorities for El Cabril near surface disposal facility.

Other waste exceding these limits can be associated as LILW-LL and should be managed in a different way.

Definition of «unprocessed waste» and «processed waste»:

This country uses the NEWMDB's definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Spain, Kingdom of

Reporting Year: 2006

Reporting Group: **CCNN**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: NUCLEAR POWER PLANTS (CENTRALES NUCLEARES)

Site Name	Facility Name	Facilities Defined		
ALMARAZ	RBMA	processing	storage	
ASCO	RBMA	processing	storage	
COFRENTES	RBMA	processing	storage	
GAROÑA	RBMA	processing	storage	
TRILLO	RBMA	processing	storage	
VANDELLOS	RBMA	processing	storage	
ZORITA	RBMA	processing	storage	

Reporting Group: **CIEMAT**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS (NATIONAL RESEARCH CENTRE FOR ENERGY AND ENVIRONMENT RELATED TECHNOLOGIES)

Site Name	Facility Name	Facilities Defined		
CIEMAT	RMBA	processing	storage	

Reporting Group: **ENRESA**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: National Waste Management Company

Site Name	Facility Name	Facilities Defined		
EL CABRIL	BLOQ	processing		
	COMP	processing		
	INC	processing		
	TECNOLOGIC	processing	storage	
	COND BLG		storage	
	ERT		storage	
	IR ZONE		storage	
	MODULOS		storage	
	LILW CELDA			disposal
	VLLW CELDA			disposal
VANDELLOS	RMBA		storage	

Groups Overview

Country: Spain, Kingdom of

Reporting Year: 2006

Reporting Group: **ENUSA**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: EMPRESA NACIONAL DEL URANIO S.A. (URANIUM NATIONAL COMPANY S.A.)

Site Name	Facility Name	Facilities Defined		
Juzbado	RMBA	processing	storage	

Reporting Group CCNN, Site Structure: ALMARAZ

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE ALMARAZ (ALMARAZ NPP)

Location: ALMARAZ (CACERES)

License Holder(s) : CENTRAL NUCLEAR DE ALMARAZ

The following list the waste management facilities that are located at this site.

Facility: RBMA

Description	LILW

Processing part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1981, Estimate

Storage part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1983	No	No	No	No

Reporting Group CCNN, Site Data: ALMARAZ

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE ALMARAZ (ALMARAZ NPP)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	1614	100	0	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			increase	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group CCNN, Site Structure: ASCO

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE ASCO (ASCO I-II NPP)

Location: ASCO (TARRAGONA)

License Holder(s) : asociacion vandellos-asco

The following list the waste management facilities that are located at this site.

Facility: RBMA

Description	LILW

Processing part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1983, Estimate

Storage part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1983	No	No	No	No

Reporting Group CCNN, Site Data: ASCO

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE ASCO (ASCO I-II NPP)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	608	100	0	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			increase	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group CCNN, Site Structure: COFRENTES

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE COFRENTES (COFRENTES NPP)

Location: COFRENTES (VALENCIA)

License Holder(s) : central nuclear cofrentes

The following list the waste management facilities that are located at this site.

Facility: RBMA

Description	LILW

Processing part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1984, Estimate

Storage part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1984	No	No	No	No

Reporting Group CCNN, Site Data: COFRENTES

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE COFRENTES (COFRENTES NPP)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	1655	100	0	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			increase	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group CCNN, Site Structure: GAROÑA

Country: Spain, Kingdom of | Reporting Year: 2006

Full Name: CENTRAL NUCLEAR SANTA MARIA DE GAROÑA (SANTA MARIA DE GAROÑA NPP)

Location: SANTA MARIA DE GAROÑA (BURGOS)

License Holder(s) : NUCLENOR

The following list the waste management facilities that are located at this site.

Facility: RBMA

Description	LILW

Processing part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1971, Estimate

Storage part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1971	No	No	No	No

Reporting Group CCNN, Site Data: GAROÑA

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR SANTA MARIA DE GAROÑA (SANTA MARIA DE GAROÑA NPP)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	987	100	0	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			increase	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group CCNN, Site Structure: TRILLO

Country: Spain, Kingdom of Reporting Year: 2006

Full Name:	CENTRAL NUCLEAR DE TRILLO (TRILLO NPP)
Location:	TRILLO (GUADALAJARA)
License Holder(s) :	CENTRAL NUCLEAR DE TRILLO

The following list the waste management facilities that are located at this site.

Facility: RBMA

Description	LILW

Processing part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1988, Estimate

Storage part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1988	No	No	No	No

Reporting Group CCNN, Site Data: TRILLO

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE TRILLO (TRILLO NPP)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	308	100	0	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			increase	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group CCNN, Site Structure: VANDELLOS

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE VANDELLOS 2 (VANDELLOS 2 NPP)

Location: VANDELLOS (TARRRAGONA)

License Holder(s) : ASOCIACION NUCLEAR DE VANDELLOS-ASCO

The following list the waste management facilities that are located at this site.

Facility: RBMA

Description	LILW

Processing part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1988, Estimate

Storage part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1988	No	No	No	No

Reporting Group CCNN, Site Data: VANDELLOS

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR DE VANDELLOS 2 (VANDELLOS 2 NPP)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	289	100	0	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			increase	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group CCNN, Site Structure: ZORITA

Country: Spain, Kingdom of Reporting Year: 2006

Full Name:	CENTRAL NUCLEAR JOSE CABRERA (JOSE CABRERA NPP)
Location:	ALMONACID DE ZORITA (GUADALAJARA)
License Holder(s) :	UNION FENOSA

The following list the waste management facilities that are located at this site.

Facility: RBMA

Description	LILW

Processing part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1968, Estimate

Storage part of the "RBMA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1968	No	No	No	No

Reporting Group CCNN, Site Data: ZORITA

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR JOSE CABRERA (JOSE CABRERA NPP)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	664	100	0	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Carbon Adsorption			same	
Compaction			increase	
Decontamination			same	
Evaporation			same	
Filtration			same	
Ion Exchange			same	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group CIEMAT, Site Structure: CIEMAT

Country: Spain, Kingdom of Reporting Year: 2006

Full Name:	CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS (CIEMAT)
Location:	Madrid
License Holder(s) :	CIEMAT

The following list the waste management facilities that are located at this site.

Facility: RMBA

Description	LILW

Processing part of the "RMBA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1970, Estimate

Storage part of the "RMBA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
SRS	Yes	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	1970	No	No	No	Yes
ALMACEN 2	building	2005	No	No	No	No
ALMACEN 3	building	2005	No	No	No	No

Reporting Group CIEMAT, Site Data: CIEMAT

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS (CIEMAT)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage RMBA	Yes	10	0	0	0	100	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Comment #9789: Waste Storage facilities/Class LILW-LL/Site RMBA

150 sealed sources (radioactive smoke detectors and lighting preventors)

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			increase	
Size Reduction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group ENRESA, Site Structure: EL CABRIL

Country: Spain, Kingdom of Reporting Year: 2006

Full Name:	INSTALACION DE ALMACENAMIENTO DE RESIDUOS DE BAJA Y MEDIA ACTIVIDAD DE SIERRA ALBARRANA (EL CABRIL LILW DISPOSAL FACILITY)
Location:	HORNACHUELOS, CORDOBA
License Holder(s) :	ENRESA

The following list the waste management facilities that are located at this site.

Facility: BLOQ

Description	FACILITY FOR PLACING THE WASTE PACKAGES IN CONCRETE CONTAINER AND GROUTING TO INMOBILIZE

Processing part of the "BLOQ" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1993

Facility: COMP

Description	SUPERCOMPACTOR

Processing part of the "COMP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1993

Facility: INC

Description	INCINERATOR

Processing part of the "INC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1993

Facility: TECNOLOGIC

Description	PROVIDING SERVICES FOR CONDITIONING AND BUFFER STORAGE OF VLLW PACKAGES

Processing part of the "TECNOLOGIC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	2007, Estimate

Storage part of the "TECNOLOGIC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity	BUFFER STORAGE				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ALMACEN	building	2007	No	No	No	No

Facility: COND BLG

Description	

Storage part of the "COND BLG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
BUFFER	building	1993	No	No	No	No

Facility: ERT

Description	

Storage part of the "ERT" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ERT	building	1993	No	No	No	No

Facility: IR ZONE

Description	

Storage part of the "IR ZONE" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	Yes	Yes			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
RECEPTION	building	1992	No	No	No	Yes

Facility: MODULOS

Description	

Storage part of the "MODULOS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	Yes	Yes			

List SRS?	No
Capacity	This facility (three warehouses) is used to store legacy packages pending for caracterization for acceptance and transfer to the disposal centre.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
MODULOS	building	1982	No	No	No	Yes

Facility: LILW CELDA

Description	NEAR SURFACE DISPOSAL WITH ENGINEERED BARRIERS. WASTE PLACED IN REINFORCED CONCRETE CONTAINERS IN THE DISPOSAL CELLS

Disposal part of the "LILW CELDA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	100000	Capacity -planned (m3)	100000
Depth (m)	9		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1987
site selection		1986	1987
design		1988	1989
construction		1989	1992
commissioning		1992	1992
operation		1993	
closure	Yes	2021	
institutional control	Yes	2321	

Reporting Group ENRESA, Site Structure: EL CABRIL

Country: Spain, Kingdom of Reporting Year: 2006

Facility: VLLW CELDA

Description	DEDICATED AREA FOR DISPOSAL OF VLLW PACKAGES

Disposal part of the "VLLW CELDA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	120000
Depth (m)	10		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
site selection		2002	
design		2003	2004
construction		2005	2007
commissioning		2003	2006
operation	Yes	2007	2038
closure	Yes	2039	2039
institutional control	Yes	2040	2100

Reporting Group ENRESA, Site Data: EL CABRIL

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: INSTALACION DE ALMACENAMIENTO DE RESIDUOS DE BAJA Y MEDIA ACTIVIDAD DE SIERRA ALBARRANA (EL CABRIL LILW DISPOSAL FACILITY)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	No	2457	0	0	0	0	0	96.4	3.6	No
LILW-SL	Storage	Yes	2089	36	0	0	5	0	0	59	No

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal LILW CELDA	Yes	54697	79.3	0	0	0	0	7.3	13.4	No

Comment #5304: The additional characteristics of the waste

Processed: solid (non-dispersible), solid (dispersible), liquid (aqueous), liquid (organic), sludge, resin

Comment #9777: EL CABRIL: Volume disposed of

Corresponds to 23973 m3 as primary waste packages.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination	Yes			
Incineration			same	
Segregation/Sorting			same	
Super Compaction			increase	
Thermal Treatment (non incineration)		Yes		

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group ENRESA, Site Structure: VANDELLOS

Country: Spain, Kingdom of Reporting Year: 2006

Full Name:	CENTRAL NUCLEAR EN DESMANTELAMIENTO DE VANDELLOS I (VANDELLOS I NPP UNDER DORMANCY)
Location:	VANDELLOS, TARRAGONA
License Holder(s) :	ENRESA

The following list the waste management facilities that are located at this site.

Facility: RMBA

Description	LILW

Storage part of the "RMBA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
SRS	No	No			

List SRS?	No
Capacity	Only for LLW-SL and LILW-LL arisen from the plant´s decommissioning.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
ATOC	building	2003	No	Yes	No	No
DGT	building	2003	No	Yes	No	No

Reporting Group ENRESA, Site Data: VANDELLOS

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: CENTRAL NUCLEAR EN DESMANTELAMIENTO DE VANDELLOS I (VANDELLOS I NPP UNDER DORMANCY)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage RMBA	Yes	1396	0	0	0	0	0	100	0	No

Comment #12197: Waste Storage facilities/Class LILW-SL/Site VANDEL
VLLW to be disposed of at the El Cabril centre

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-LL	Storage	Yes	1581	0	0	0	0	0	100	0	No

Comment #12198: Waste Storage facilities/Class LILW-LL/Site VANDEL
ILW operational waste (mainly, graphite)

Reporting Group ENUSA, Site Structure: Juzbado

Country: Spain, Kingdom of Reporting Year: 2006

Full Name:	FABRICA DE ELEMENTOS COMBUSTIBLES (NUCLEAR FUEL ASSEMBLIES MANUFACTURING PLANT)
Location:	JUZBADO, SALAMANCA
License Holder(s) :	ENUSA

The following list the waste management facilities that are located at this site.

Facility: RMBA

Description	LILW

Processing part of the "RMBA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1985, Estimate

Storage part of the "RMBA" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	Yes	Yes
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
STORAGE	building	1985	No	No	No	No

Reporting Group ENUSA, Site Data: Juzbado

Country: Spain, Kingdom of Reporting Year: 2006

Full Name: FABRICA DE ELEMENTOS COMBUSTIBLES (NUCLEAR FUEL ASSEMBLIES MANUFACTURING PLANT)

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage	Yes	470	0	100	0	0	0	0	0	No

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Segregation/Sorting			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

REGULATORS

Country: Spain, Kingdom of Reporting Year: 2006

Name	CSN
Full Name	Consejo de Seguridad Nuclear (Nuclear Safety Council)
Division	
City or Town	Madrid

Name	MITyC
Full Name	Ministerio de Industria, Turismo y Comercio (Ministry for Industry, Tourism and Trade)
Division	Dirección General de Política Energética y Minas (Directorate General for Energy Policy and Mines)
City or Town	Madrid

Name	MIMA
Full Name	MINISTERIO DE MEDIO AMBIENTE (MINISTRY FOR ENVIRONMENT)
Division	DIRECCION GENERAL DE CALIDAD Y EVALUACION AMBIENTAL (DIRECTORATE GENERAL FOR ENVIRONMENTAL QUALITY AND ASSESSMENT)
City or Town	MADRID

Attachment #1350: This attached chart shows the relationships between ENRESA and the different Institutions and Organisations involved in Radioactive Waste Management

File name: Institutional chart.doc

REGULATIONS / LAWS

Country: Spain, Kingdom of Reporting Year: 2006

Name	RD 1349/03	
Title or Name	ROYAL DECREE 1349/2003, of 31st October, on the governance of activities performed by the Empresa Nacional de Residuos Radiactivos, S.A. (ENRESA) and their financing.	
Reference Number	RD1349/2003	
Date Promulgated or Proclaimed	2003-10-31	Regulation

Attachment #1348: Royal Decree 1349/2003 (in Spanish)

File name: RD 1349-2003.pdf

File type: PDF Document

Name	LAW 15/80	
Title or Name	This Law constitutes the CSN as sole organisation responsible for nuclear safety and radiation protection, the Council being independent from the Government and the rest of the Adminsitration and having the power to carry out the necessary inspections and assessments of nuclear facilities in order to guarantee nuclear safety and radiological protection	
Reference Number		
Date Promulgated or Proclaimed	1980-04-22	Law

Name	RD 1836/99	
Title or Name	The Regulation on Nuclear and Radioactive installations is the most important of the standards for enactment of the Nuclear Energy Act. It establishes the procedure for licensing of facilities at which nuclear and radioactive activities are carried out. It defines in detail the types and categories of such facilities nd establishes as a general standard that the installations are subjected to a system of authorisations to be awarded.	
Reference Number		
Date Promulgated or Proclaimed	1999-12-03	Regulation

Name	RD 413/97	
Title or Name	The Royal Decree on the radiation protection of external workers subjected to the risk of exposure to ionising radiations due to their intervening in the controlled zone incorporated the corresponding Community Directive into the Spanish legal system. Although it does not specifically refer to the area of waste management, the latter is of great importance in the Decree since most of these activities are carried out by collaborating organisations.	
Reference Number		
Date Promulgated or Proclaimed	1997-04-16	Regulation

REGULATIONS / LAWS

Country: Spain, Kingdom of Reporting Year: 2006

Name	ACT 54/97	
Title or Name	Electricity Industry Act 54/1997	
Reference Number		
Date Promulgated or Proclaimed	1997-11-27	Law

Attachment #1352: Definition of radioactive waste and coverage

File name: Electricity Industry Act 54 1997.doc

File type: MS Office Document

Name	ACT 14/99	
Title or Name	TAXES AND PUBLIC PRICES FOR SERVICES RENDERED BY THE MUCLEAR SAFETY COUNCIL 14/1999	
Reference Number		
Date Promulgated or Proclaimed	1999-05-14	Law

Attachment #1407:

File name: NUCLEAR SAFETY COUNCIL ACT 14-1999.doc

Name	ACT 5/05	
Title or Name	NEW WORDING FOR FOR ADDITIONAL PROVISION SIX OF ELECTRICITY INDUSTRY ACT WITH REGARD TO THE FUND FOR FINANCING THE GENERAL RADIAOCTIVE WASTE PLAN ACTIVITIES	
Reference Number		
Date Promulgated or Proclaimed	2005-03-11	Law

Attachment #1408:

File name: RD 5-2005 ingles.doc

Name	ACT 24/05	
Title or Name	PRODUCTIVITY PROMOTION REFORMS ACT. SECTION EIGHT. FORMATION OF STATE BUSINESS ENTITY, ENRESA, RESPONSIBLE FOR MANAGEMENT OF RW	
Reference Number		
Date Promulgated or Proclaimed	2005-11-18	Law

Attachment #1409:

File name: Law 24-2005.doc

REGULATIONS / LAWS

Country: Spain, Kingdom of Reporting Year: 2006

Name	RD 1364/06	
Title or Name	ROYAL DECREE DEFINING THE TARIFFS TO BE PAID BY ELECTRICITY CONSUMERS AND THE TAXES BY THE RADIOACTIVE WASTE PRODUCERS FOR THE FINANCING OF THE ACTIVITIES INCLUDED IN THE GENERAL RADIAOCTIVE WASTE PLAN	
Reference Number		
Date Promulgated or Proclaimed	2006-12-29	Regulation

Attachment #1410: TEXT IN SPANISH

File name: Tarifa 2006.doc

Name	RD 254/06	
Title or Name	DEVELOPING THE BASIC STRUCTURE OFTHE MINISTRY OF INDUSTRY, TOURISM AND COMMERCE	
Reference Number		
Date Promulgated or Proclaimed	2006-03-03	Regulation

Attachment #1411: TEXT IN SPANISH

File name: RD 254-2006 estructura basica MITyC.pdf

Name	OR JULY 98	
Title or Name	ORDER AUTHORISING ENRESA TO THE ASSIGNMENT OF FUNDS TO TOWN COUNCILS WHOSE MUNICIPAL TERRITORIES HOUSE FACILITIES FOR STORAGE OR DISPOSAL OF RW	
Reference Number		
Date Promulgated or Proclaimed	1998-07-13	Regulation

Attachment #1412:

File name: Regulation governing Funds allocation to Town Council.pdf

Name	OR 1449/03	
Title or Name	ORDER ON MANAGEMENT OF SOLID WASTE MATERIAL WITH RADIAOCTIVE CONTENT GENERATED BY CATEGOY 2 AND 3 RADIAOCTIVE INSTALLATIONS WHERE UNENCAPSULATED RADIAOCTIVE ISOTOPES ARE HANDLED OR STORED	
Reference Number		
Date Promulgated or Proclaimed	2003-05-21	Regulation

Attachment #1413:

File name: Order 1449 2003.doc

REGULATIONS / LAWS

Country: Spain, Kingdom of Reporting Year: 2006

Name	RD 775/06	
Title or Name	ROYAL DECREE 775/2006, dated 23rd June, creating the Interministerial Committee for the establishment of the criteria that must be met by the site of the centralised spent nuclear fuel and high-level waste temporary storage facility, and of its associated technology centre.	
Reference Number		
Date Promulgated or Proclaimed	2006-07-05	Regulation

Attachment #1414:

File name: RD 775 2006 english version.doc

MILESTONES

Country: Spain, Kingdom of Reporting Year: 2006

Start Year or Reference Year:	1951	End Year	
Description of Milestone			
The Nuclear Energy Board (JEN) was created as the organization in charge of all fields related to nuclear energy. In 1986 it was renamed CIEMAT.			

Start Year or Reference Year:	1964	End Year	
Description of Milestone			
The Spanish Nuclear Energy Law was enacted			

Start Year or Reference Year:	1968	End Year	
Description of Milestone			
The first Spanish NPP (C.N. Jose Cabrera) was connected to the grid			

Start Year or Reference Year:	1980	End Year	
Description of Milestone			
The Spanish Nuclear Safety Council was created			

Start Year or Reference Year:	1984	End Year	
Description of Milestone			
The Spanish Radioactive Waste Management Company (ENRESA) was created by Royal Decree			

Start Year or Reference Year:	1987	End Year	
Description of Milestone			
The Spanish First General Radioactive Waste Plan was approved by the Government.			

Start Year or Reference Year:	1991	End Year	1994
Description of Milestone			
Decommissioning of the Uranium Milling Plant of Andujar (FUA)			

Start Year or Reference Year:	1992	End Year	
Description of Milestone			
The operational license for El Cabril facility was granted			

Start Year or Reference Year:	1998	End Year	2004
Description of Milestone			
Vandellos I NPP decommissioning (stage 2).			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
The Sixth General Radioactive Waste Plan is approved by the Government			

Policies

Country: Spain, Kingdom of

Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Attachment #1415: The Sixth General Radiaoctive Waste Plan, approved July 2006, defines the current policy in this matter

File name: SIXTH PLAN.pdf

File type: PDF Document

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete

Waste Generator and Operators of Waste Management Facilities Responsibility

24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Attachment #1351: Regulation related to the management of solid waste material with radioactive content generated at category 2 and 3 radioactive facilities where non-encapsulated radioactive isotopes are handled or stored. (clearance levels)

File name: RD 1349-2003 ingles.doc

File type: MS Office Document

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All

42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	No
62	waste storage	No
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

Comment #7567: PROCEDURES

SEPARETE FOR PROCESSING/SORTING. COMMON FOR DISPOSAL

Policies

Country: Spain, Kingdom of **Processing/Storage** Reporting Year: 2006

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	Yes

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
110	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No

90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	No

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for

Sweden

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 10:50:31

Waste Class Matrix(ces) Used/Defined

Country: Sweden, Kingdom of

Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	**X**	**X**	**X**	
processed				**X**

Groups Overview

Country: Sweden, Kingdom of Reporting Year: 2006

Reporting Group: **CLAB**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Central Interim Storage for, mainly, spent nuclear fuel but also for activated components from NPPs

Site Name	Facility Name	Facilities Defined		
CLAB	CLAB		storage	

Reporting Group: **NPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Nuclear Power Plants at Forsmark, Oskarshamn, Barseback and Ringhals

Site Name	Facility Name	Facilities Defined		
Barseback	Bit	processing		
	Cement	processing		
	Compaction	processing		
	Dewater	processing		
Forsmark	Bit	processing		
	Compaction	processing		
	Solid	processing		
	FKA			disposal
OKG	Cement	processing		
	Compaction	processing		
	Dewater	processing		
	Solid	processing		
	OKG		storage	
	OKG			disposal
Ringhals	Cement	processing		
	Compaction	processing		
	Solid	processing		
	Ringhals			disposal

Reporting Group: **Repository**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Facilities for disposal of LILW in underground cavities

Site Name	Facility Name	Facilities Defined		
SFL 3-5	SFL 3-5			disposal
SFR 1	SFR 1			disposal
SFR 3	SFR 3			disposal

Groups Overview

Country: Sweden, Kingdom of

Reporting Year: 2006

Reporting Group: **Studsvik**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Studsvik Research Center. The center collects and treats waste from all small users in Sweden.

Site Name	Facility Name	Facilities Defined		
Studsvik	Cement	processing		
	Compaction	processing		
	Hot cell	processing		
	Incin	processing		
	Melting	processing		
	Studsvik		storage	
	Studsvik			disposal

Reporting Group CLAB, Site Structure: CLAB

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name:	Central Interim Storage Facility for Spent Nuclear Fuel
Location:	Co-located to the NPP 25 km north of Oskarshamn
License Holder(s) :	Swedish Nuclear Fuel and Waste management Co (SKB)

The following list the waste management facilities that are located at this site.

Facility: CLAB

Description	Water filled concrete pools in excavated rock cavities. Mainly used for storage of spent nuclear fuel. Only a small part is used for LILW-LL. Data refer to the whole facility.

Storage part of the "CLAB" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CLAB	pool	1985	No	No	No	No

Reporting Group CLAB, Site Data: CLAB

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Central Interim Storage Facility for Spent Nuclear Fuel

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-LL	Storage	No	634	100	0	0	0	0	0	0	No

Reporting Group NPP, Site Structure: Barseback

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Barsebäck Nuclear Power Plant

Location: At the south coast outside the city of Malmö

License Holder(s) : Barseback Kraft AB

The following list the waste management facilities that are located at this site.

Facility: Bit

Description	Solidification of ion exchange resins in bitumen

Processing part of the "Bit" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1980

Facility: Cement

Description	Conditioning of ion exchange resins in cement

Processing part of the "Cement" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	, Unknown

Facility: Compaction

Description	Compaction of low active scrap and trash

Processing part of the "Compaction" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1980

Reporting Group NPP, Site Structure: Barseback

Country: Sweden, Kingdom of Reporting Year: 2006

Facility: Dewater

Description	Dewatering ion exchange resins in waste container

Processing part of the "Dewater" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1980

Reporting Group NPP, Site Data: Barseback

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Barsebäck Nuclear Power Plant

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	

Comment #7605: dewatering

Dewatering was not available as a treatment method in the NEWMDB's list of methods and, therefore, it is not indicated in the list of treatment methods selected for Barseback. Dewatering is a process/treatment method in which spent ion exchange resin is collected in a container (waste packaging) and the free water which comes with the resin is pumped away. The result is something which looks like clay. This package is the waste package ready for disposal.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization				Yes
Cementation	Yes			

Comment #7604: status of facilities

As of the reporting date for the "2003 submission" (Dec 2003), the cementation facility was not yet in operation.

Reporting Group NPP, Site Structure: Forsmark

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Forsmark Nuclear Power Plant

Location: Forsmark 180 km north of Stockholm at the Baltic Sea

License Holder(s) : Forsmark Kraftgrupp AB

The following list the waste management facilities that are located at this site.

Facility: Bit

Description	Bituminisation of ion exchange resins

Processing part of the "Bit" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1988

Facility: Compaction

Description	Compation of low active scrap and trash

Processing part of the "Compaction" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1988

Facility: Solid

Description	Solid waste backfilled with cement in waste containers

Processing part of the "Solid" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1986

Reporting Group NPP, Site Structure: Forsmark

Country: Sweden, Kingdom of Reporting Year: 2006

Facility: FKA

Description	Landfill for LILW with very low activity content. Activity content, total 100 GBq. Specific activity max 300 Bq/g and surface dose rate max 0.5 mSv/h

Disposal part of the "FKA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is modular			
Capacity - existing (m3)	42500	Capacity -planned (m3)	42500
Depth (m)	0		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
operation		1989	2040

Reporting Group NPP, Site Data: Forsmark

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Forsmark Nuclear Power Plant

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	Yes	3900	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	

Reporting Group NPP, Site Structure: OKG

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: OKG Nuclear Power Plant

Location: 25 km north of Oskarshamn on the east coast

License Holder(s) : OKG AB

The following list the waste management facilities that are located at this site.

Facility: Cement

Description	Cement solidification of ion exchange resins

Processing part of the "Cement" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1972

Facility: Compaction

Description	Compaction of scrap and trash with low activity contents

Processing part of the "Compaction" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1972

Facility: Dewater

Description	Dewatering of ion exchange resins

Processing part of the "Dewater" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1980

Reporting Group NPP, Site Structure: OKG

Country: Sweden, Kingdom of Reporting Year: 2006

Facility: Solid

Description	Scrap and trash backfilled with cement in waste container

Processing part of the "Solid" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1972

Facility: OKG

Description	Rock cavern for storage of LILW

Storage part of the "OKG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
OKG	cave	1978	No	No	No	No

Reporting Group NPP, Site Structure: OKG

Country: Sweden, Kingdom of Reporting Year: 2006

Facility: OKG

Description	Landfill for LILW with very low activity content. Activity content, total 100 GBq (planned 300 GBq). Specific activity max 300 Bq/g and surface dose rate max 0.5 mSv/h

Disposal part of the "OKG" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is modular			
Capacity - existing (m3)	7500	Capacity -planned (m3)	16000
Depth (m)	0		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
operation		1987	2040

Reporting Group NPP, Site Data: OKG

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: OKG Nuclear Power Plant

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	Yes	7500	100	0	0	0	0	0	0	No
LILW-LL	Storage	Yes	913	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	

Comment #7606: dewatering

Dewatering was not available as a treatment method in the NEWMDB's list of methods and, therefore, it is not indicated in the list of treatment methods selected for Barseback.
Dewatering is a process/treatment method in which spent ion exchange resin is collected in a container
(waste packaging) and the free water which comes with the resin is pumped away. The result is something which looks like clay. This package is the waste package ready for disposal.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Solidification			same	

Reporting Group NPP, Site Structure: Ringhals

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Ringhals Nuclear Power Plant

Location: On the west coast south of Gotheborg

License Holder(s) : Ringhals AB

The following list the waste management facilities that are located at this site.

Facility: Cement

Description	Conditioning of resins with cement

Processing part of the "Cement" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1974

Facility: Compaction

Description	Compaction of scrap and trash containing small activity quantities

Processing part of the "Compaction" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1982

Facility: Solid

Description	Scrap and trash backfilled with cement

Processing part of the "Solid" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1977

Reporting Group NPP, Site Structure: Ringhals

Country: Sweden, Kingdom of Reporting Year: 2006

Facility: Ringhals

Description	Landfill for LILW with very low activity content. Activity content, total 100 GBq. Specific activity max 300 Bq/g and surface dose rate max 0.5 mSv/h

Disposal part of the "Ringhals" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is modular			
Capacity - existing (m3)	3500	Capacity -planned (m3)	10000
Depth (m)	0		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
operation		1993	2040

Reporting Group NPP, Site Data: Ringhals

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Ringhals Nuclear Power Plant

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	Yes	3500	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Solidification			same	

Reporting Group Repository, Site Structure: SFL 3-5

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Repository for LILW-LL

Location: Co-located to the Forsmark NPP 180 km north of Stockholm

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: SFL 3-5

Description	Repository for LILW-LL

Disposal part of the "SFL 3-5" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	Yes
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	Yes
List SRS	No				

Type	rock cavern (under sea, land access)		
Facility is non modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	20000
Depth (m)	200-300		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
operation		2045	2060

Reporting Group Repository, Site Structure: SFR 1

Country: Sweden, Kingdom of | Reporting Year: 2006

Full Name: Repository for Radioactive Operational Waste

Location: Co-located to the Forsmark NPP 180 km north of Stockholm

License Holder(s) : Swedish Nuclear Fuel and Waste Management Co (SKB)

The following list the waste management facilities that are located at this site.

Facility: SFR 1

Description	Repository for disposal of operational LILW in underground cavities excavated in crystalline rock

Disposal part of the "SFR 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	rock cavern (under sea, land access)		
Facility is non modular			
Capacity - existing (m3)	63000	Capacity -planned (m3)	63000
Depth (m)	>50		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1974	1976
site selection		1980	1981
design		1982	1983
construction		1983	1987
commissioning		1987	1988
operation		1988	2030
closure		2030	

Reporting Group Repository, Site Data: SFR 1

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Repository for Radioactive Operational Waste

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	Yes	31259	90	0	0	10	0	0	0	No

Reporting Group Repository, Site Structure: SFR 3

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Repository for decommissioning waste

Location: Site not selected but planned as co-located to the Forsmark NPP 180 km north of Stockholm

License Holder(s) :

The following list the waste management facilities that are located at this site.

Facility: SFR 3

Description	Repository for disposal of LILW from decommissioning

Disposal part of the "SFR 3" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	rock cavern (under sea, land access)		
Facility is non modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	150000
Depth (m)	50		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1982	
operation		2020	2040

Reporting Group Studsvik, Site Structure: Studsvik

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Studsvik Research Center

Location: Outside Nyköping 100 km south of Stockholm

License Holder(s) : Studsvik AB

AB SVAFO

The following list the waste management facilities that are located at this site.

Facility: Cement

Description	Cement solidification of wet waste, ion exchange resins, concentrats etc.

Processing part of the "Cement" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1999

Facility: Compaction

Description	Compaction of low active waste in containers

Processing part of the "Compaction" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1970

Facility: Hot cell

Description	Shielded treatment and conditioning of solid LILW. Cement as backfill in waste container.

Processing part of the "Hot cell" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	, Unknown

Reporting Group Studsvik, Site Structure: Studsvik

Country: Sweden, Kingdom of Reporting Year: 2006

Facility: Incin

Description	Inciniration of low active trash

Processing part of the "Incin" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1976

Facility: Melting

Description	Melting of low active scrap

Processing part of the "Melting" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1987

Facility: Studsvik

Description	Rock cavern for storage of LILW

Storage part of the "Studsvik" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	Yes	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
AM	cave	1985	No	No	No	No

Reporting Group Studsvik, Site Structure: Studsvik

Country: Sweden, Kingdom of Reporting Year: 2006

Facility: Studsvik

Description	Landfill for LILW with very low activity content. Activity content, total 100 GBq. Specific activity max 300 Bq/g and surface dose rate max 0.5 mSv/h

Disposal part of the "Studsvik" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is modular			
Capacity - existing (m3)	900	Capacity -planned (m3)	1200
Depth (m)	0		
Host medium	crystalline rock (granite)		

Phase	Estimate	Start Year	End Year
operation		1987	2040

Reporting Group Studsvik, Site Data: Studsvik

Country: Sweden, Kingdom of Reporting Year: 2006

Full Name: Studsvik Research Center

Inventory Reporting Date: December 2006 Waste Matrix: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Disposal	Yes	900	0	0	0	100	0	0	0	No
LILW-LL	Storage	Yes	2000	0	0	0	100	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Incineration			same	
Metal Melting			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Solidification			same	

REGULATORS

Country: Sweden, Kingdom of Reporting Year: 2006

Name	SSI
Full Name	Swedish Radiation Protection Authority
Division	
City or Town	Stockholm

Name	SKI
Full Name	Swedish Nuclear Power Inspectorate
Division	
City or Town	Stockholm

REGULATIONS / LAWS

Country: Sweden, Kingdom of Reporting Year: 2006

Name	Nuc Act	
Title or Name	The Nuclear Activities Act	
Reference Number	1984:3	
Date Promulgated or Proclaimed	1984-01-01	Law

Name	NucActOrd	
Title or Name	Nuclear Activities Ordinance	
Reference Number	1984:14	
Date Promulgated or Proclaimed	1984-01-01	Law

Name	Safety Reg	
Title or Name	Regulations Concerning Safety in Certain Nuclear Facilities	
Reference Number	SKI FS 2004:1	
Date Promulgated or Proclaimed	2005-01-01	Regulation

Name	Dose Reg	
Title or Name	Regulations Concerning the Final Management of Spent Nuclear Fuel and Nuclear Waste	
Reference Number	SSI FS 1998:1	
Date Promulgated or Proclaimed	1998-01-01	Regulation

Name	Archive	
Title or Name	Regulations Concerning Archives at Nuclear Installations	
Reference Number	SSI FS 1997:1	
Date Promulgated or Proclaimed	1997-01-01	Regulation

REGULATIONS / LAWS

Country: Sweden, Kingdom of Reporting Year: 2006

Name	Financing	
Title or Name	Act on the Financing of Future Expenses for Spent Nuclear Fuel, etc.	
Reference Number	1992:1537	
Date Promulgated or Proclaimed	1992-01-01	Law

Name	FinanceOrd	
Title or Name	Ordinance on the Financing of Future Expenses for Spent Nuclear Fuel etc.	
Reference Number	1981:671	
Date Promulgated or Proclaimed	1981-01-01	Law

MILESTONES

Country: Sweden, Kingdom of Reporting Year: 2006

Start Year or Reference Year:	1988	End Year	2060
Description of Milestone			
The final repository for short-lived radioactive waste from operation and maintenance of NPPs in operation. From approximately the year 2020 extended to acommodate decommissioning waste from NPPs			

Policies

Country: Sweden, Kingdom of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

	Requirements	(Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

Member State Responsibility		
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete

Waste Generator and Operators of Waste Management Facilities Responsibility

24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	Yes
	If the answer to the previous question is Yes, provide a brief description or reference documentation that describes previous clearance practices using the comments/attachments link below	

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All

42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - Some

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	No
61	waste minimization	No
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)

Policies

Country: Sweden, Kingdom of **Processing/Storage** Reporting Year: 2006

108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
110	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	Yes
112	Currently, are there any wastes (processed or unprocessed, including the products of reprocessing) or spent fuel from another country being stored in your country?	Yes
113	Will some or all of the the product(s) of processing/reprocessing be returned to the country of origin?	Yes
114	Does the inventory you reported to the NEWMDB for your country include radioactive wastes that originated in another country or that were generated as a result of processing/reprocessing radioactive waste/spent fuel that orginated in another country?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	No
84	Do any agreements include suppliers that are outside of your Country?	No

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No

87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No

Policies

Country: Sweden, Kingdom of **Decommissioning** Reporting Year: 2006

100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for Switzerland

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 10:50:51

Waste Class Matrix(ces) Used/Defined

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #7198: Matrix use

The IAEA standard waste classification system is not applied within offical reports on radwaste in Switzerland. In the context of NEWMDB, it is, however, adopted as default to meet basic technical requirements for the definition of reporting groups within the database (i.e. need for waste matrix allocation) in case of reporting groups without any associated classification system (e.g. because there is no official reporting at all).

Waste Class Matrix: Nagra

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
SMA	97	3	0
LMA	0	100	0
HAA	0	0	100

Description: Classification scheme adopted by Nagra for provisional waste allocation to planned SMA and HAA/LMA repositories within Swiss disposal programme in 1985-2002 [kept in NEWMDB up to decisions on site/concept of new SMA repository]. Precise classification rules have not yet been established; the basic criterion is that the system of repositories and allocated wastes can be demonstrated to comply with the national overall long-term safety targets stated in HSK-R-21 (November 1993).

Comment #345: Waste class SMA

SMA (low-level and short-lived intermediate level waste) shall be disposed of in a geologic repository, EL-SMA. This stream covers all LILW-SL (suitable for near-surface disposal) and might, from a technical point of view, also include part of LILW-LL (wastes slightly passing IAEA limit on specific alpha activity in LILW-SL). The volume of this LILW-LL fraction can be expected to be up to a few percent of the total SMA volume; the distribution factors given represent a rough estimate.

Comment #346: Waste class LMA

LMA (long-lived intermediate-level waste) refers to the fraction of LILW-LL which cannot be disposed of in an EL-SMA.

Comment #347: Waste class HAA

HAA (high-level waste) denote canisters with vitrified HLW from reprocessing spent Swiss fuel in France and Great Britain, being returned to Switzerland.

Comment #360: Waste class BE

Not included. IAEA has explicitly excluded BE (spent fuel) from reporting in NEWMDB.

Waste Class Matrix(ces) Used/Defined

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Waste Class Matrix: NEA-SD

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
MD	100	0	0
MDLC	85	15	0

Description: Classification scheme used by IAEA to report on Swiss waste disposed of by OECD/NEA sea dumping campaigns in the Atlantic Ocean between 1969 and 1982 (IAEA-TECDOC-1105 [August 1999], Annex A.11).

Comment #361: Waste class MD

MD (200-l metal drums), nominal volume 0.21 m3, include solidified (generally: cemented) waste. They are assumed to be LILW-SL.

Comment #362: Waste class MDLC

MDLC (metal drums lined with concrete) represent 200-l drums with cemented waste, grouted into a concrete container (nominal volume 0.98 m3) before shipment. Overpacking purposes are shielding (gamma emitters) and enhanced safety (alpha emitters, including Ra-226). Volume distribution over LILW-SL and LILW-LL is estimated on the basis of the alpha activities processed (AGNEB-165 [28.04.1983], table 1), the numbers of dumped MDLC (IAEA-TECDOC-1105 [1999], Annex A.11), and the assumption of a 60% use of the IAEA limits on specific activities for Ra-226 and other alpha emitters (AGNEB-165 [28.04.1983], p.4).

Waste Class Matrix(ces) Used/Defined

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Waste Class Matrix: HSK

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
KKB	100	0	0
KKG	97.3	2.7	0
KKL	100	0	0
KKM	99.9	0.1	0
PSI(HSK)	91.7	8.3	0
ZWILAG-u	95.7	4.3	0
ZWILAG-p	100	0	0
RPW-LILW	70	30	0
RPW-HLW	0	0	100

Description: Classification pattern to adopt HSK's actual practice in public reporting on radwaste accumulated at sites under HSK's supervision (see: Groups Overview - Reporting Group "HSK" - Comment #373) within the framework of NEWMDB.

Comment #363: Class Definitions

a) RPW-HLW and RPW-LILW: conditioned reprocessing wastes (vitrified HLW and others, respectively) returned to Switzerland by foreign reprocessors (Cogema, BNFL).

b) KKB, KKG, KKL, KKM: all wastes other than reprocessing wastes (generally: site-owned NPP operation wastes) stored at the pertinent NPP (KKB, KKG, KKL, KKM).

c) PSI(HSK): all federal wastes resulting from nuclear applications in medicine, industry and research - stored at facilities under HSK's supervision.

d) ZWILAG: all wastes other than reprocessing wastes stored at ZWILAG site (basically NPP operation/decommissing waste) - provisionally a distinction between unprocessed and processed waste (affixes "-u" and "-"p", respectively) is included to account for actual differences when applying IAEA's waste classification.

Comment #365: Volume Conversion to IAEA Classification System

Volume data for waste classes to be reported have been tentatively split into volumes for HLW, LILW-SL and LILW-LL, resulting in the factors (percentage values) outlined above as matrix elements, based on the technical criteria defined in IAEA Safety Guide 111-G-1.1 (1994), Table II.

The following methods were applied:

(a) assessment from the Swiss database system on radioactive materials (ISRAM) referring to package nuclide inventories at key date [standard] - using the criterion >4000 Bq alpha/g of package to separate LILW-LL from LILW-SL -, or

(b) best estimate [backup].

Except for reporting class "RPW-HLW", the conversion factors must be considered as non-static, just reflecting an assessment related to a key date.

Waste Class Matrix(ces) Used/Defined

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X	X		
processed			X	X

Comment #12140: Definitions for Unprocessed and Processed Waste

Waste volume data in the Reference Document for Reporting to NEWMDB (see comment #373) are given in terms of 2 categories - "unconditioned waste" and "conditioned waste".

The second category refers to waste which has been formally accepted by HSK as meeting the following general principle: "Radioactive waste shall be conditioned in such a way that the resulting waste forms, together with the packaging elements permanently tied to them, can be submitted to the waste management stages of transport, storage and disposal, without any further intrusive action, overpackaging measures remaining admissible". The first and complementary category, logically, includes all waste not yet complying with this principle.

In order to carry the Reference Document data unambiguously forward to NEWMDB, "unconditioned waste" and "conditioned waste" have been simply equalled to IAEA's terms "unprocessed waste" and "processed waste", respectively. Hence, data given for "processed waste" in NEWMDB in fact relate to waste considered as being processed for storage and, intentionally, also for disposal.

Groups Overview

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Note: The "2003 data collection cycle" asked Member States to report on wastes held at foreign facilities. Please see the following NEWMDB On Line Help page:

http://www-newmdb.iaea.org/showhelp.asp?Topic=18-4-1

However, some Member States had difficulty meeting this request for foreign reprocessing facilities. Additionally, Member States were divided on the issue. Some felt that the Member State in possession of foreign held waste should report it, others felt that the "owner" of the waste should report it, regardless of whether the waste was held abroad or not. Therefore, a decision was made to not publish information on foreign held waste until this matter was resolved.

Within this Groups Overview report, foreign waste management sites are indicated by italicized text. However, details of the sites (Site Structure) and the waste held (Site Data) are not published as part of this Member State's submission.

Please note, "sites" for the past practice of sea dumping are also denoted as "foreign" sites (italicized text). Details of the sites and the waste disposed are included in published Member State reports if this information was reported to the NEWMDB.

Reporting Group: **BAG**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Wastes from Nuclear Applications in Medicine, Industry and Research Held under BAG's Supervision

Site Name	Facility Name	Facilities Defined		
CERN	WMF@CERN	processing	storage	
PSI(BAG)	WMF@PSI-W	processing	storage	

Comment #7226: General

The Federal Office of Health (BAG) is the supervisory body for radwaste management activities at sites which do not fall under nuclear regulation in a legal sense [note: those are supervised by the Nuclear Safety Inspectorate (HSK)], dealing with a broad variety of waste producers in the field of nuclear applications in medicine, industry and research.

Waste arisings destined to disposal in a nuclear repository are

(a) collected on behalf of BAG (possibly after pretreatment, subject to fee) and routed to a national delivery point (PSI-East), where they are conditioned and stored under HSK's supervision (see: Reporting Group "HSK") - standard procedure for small producers, option for large nuclear research centres (CERN, PSI outside HSK's supervision), or

(b) storage after/without treatment or conditioning at site - standard procedure for large-sized decommissioning wastes of large nuclear research centres.

BAG has no legal obligation for public reporting on wastes falling under (b) [note: category (a) is included under reporting for PSI(HSK)]. Hence, information given is restricted to some qualitative issues.

Note, however, that registration of wastes of category (b) into the database system for Swiss radioactive wastes (ISRAM) has been accepted by PSI and CERN and is being implemented.

Groups Overview

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Reporting Group: **Foreign**

Inventory Reporting Date: December 2006

Waste Matrix Used: IAEA Def.

Description: Swiss wastes stored outside Switzerland

Site Name	Facility Name	Facilities Defined		
ForeignRP (foreign)	BNFL	processing		
	Cogema	processing		

Comment #7229: General

All Swiss NPP's have current service contracts with BNFL (United Kingdom) and COGEMA (France) for the reprocessing of a qualified amount of spent fuel. These are subject to a return-of-waste clause which is exercised by both reprocessors.

Reprocessing wastes to be returned include, in both cases, vitrified HLW and a spectrum of LILW types which have been or are to be submitted to acceptance procedures in Switzerland (as well as in other countries concerned).

Known are the fuel deliveries (fuel assembly types, fuel masses, burnups) from [not reported in NEWMDB] and the waste returns to Switzerland [reported under site "ZWILAG"], up to the key date.

The overall amount of waste expected to be returned to Switzerland is known but not finalized, hence volumes are not reported.

Groups Overview

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Reporting Group: **HSK**

Inventory Reporting Date: December 2006

Waste Matrix Used: HSK

Description: Wastes from Swiss nuclear power industry, research reactors and other nuclear installations (including the national collection centre for Federal wastes at PSI-East) held under HSK's supervision

Site Name	Facility Name	Facilities Defined		
KKB	WMF@KKB	processing	storage	
KKG	WMF@KKG	processing	storage	
KKL	WMF@KKL	processing	storage	
KKM	WMF@KKM	processing	storage	
PSI(HSK)	WMF@PSI-E	processing	storage	
ZWILAG	WMF@ZWILAG	processing	storage	

Comment #373: Reference Document for Reporting to NEWMDB

HSK Supervision Report 2006, Appendix A, Tables 8 [KKB, KKG, KKL, KKM, PSI(HSK)] and 9 [ZWILAG].

Comment #374: Reporting on NPP sites

For NPP sites (KKB, KKG, KKL, KKM), the Reference Document provides data on total volumes for unprocessed and processed waste stored on site, without discrimination of individual local storage units. Under this constraint, (a) information on local waste management facilities is given collectively under "WMF@KKX", (b) waste data are presented for each site in terms of a generic "overall" storage unit (named "all@KKX"), (c) the start of both treatment/conditioning and storage operations is generically set equal to the first year of commercial operation of the NPP, and (d) the type of the "overall" storage unit is defined as "various" due to effective or potential variations within the set of locally available storage units [note: conditioned and solid unconditioned wastes are usually stored in buildings or bunkers, liquids or sludges awaiting treatment in tanks].

Comment #378: Reporting on PSI(HSK)

As for NPP sites, the Reference Document provides data on total volumes for unprocessed and processed waste stored at site PSI(HSK) - physically being a part of PSI-East (PSI-E) site - , not discriminating between individual local storage units. Under this constraint, (a) information on local waste management facilities is given collectively under "WMF@PSI-E", (b) waste data are presented for each site in terms of a generic "overall" storage unit (named "all@PSI-E"), (c) the start of both treatment/conditioning and storage operations is generically set equal to the first year of operation of PSI-East, and (d) the type of the "overall" storage unit is defined as "various" due to effective or potential variations within the set of locally available storage units [note: processed and solid unprocessed wastes are usually stored in buildings or bunkers, liquids or sludges awaiting treatment in tanks].

Comment #7224: Reporting on ZWILAG

In the case of ZWILAG, the central Swiss waste management facility owned by the 4 Swiss NPPs, the Reference Document includes information on allocation of identified wastes to distinct storage units. For the scope of NEWMDB, information on ZWILAG waste management facilities is summarized under "WMF@ZWILAG", the active storage units (Buildings H, M and further summarized under "others") being identified for comprehensiveness. Quantitative waste data in the Reference Report are not necessarily given in volume units and there is no explicit distinction between processed and unprocessed waste, thus requiring some data evaluation preceeding any input to NEWMDB.

Comment #7225: Reporting on Storage Capacities

Individual statements on site-specific storage capacities are omitted. As NPPs can use the large storage capacity of ZWILAG, problems with NPP waste storage are not expected to occur. At PSI-East, a need for increased capacity could be solved in time by adding further storage buildings or by use of ZWILAG storage capacity.

Groups Overview

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Reporting Group: **Nagra**

Inventory Reporting Date: December 2006

Waste Matrix Used: Nagra

Description: Swiss Repository Projects

Site Name	Facility Name	Facilities Defined		
EL-HAA/LMA	DU-HAA			disposal
	DU-LMA			disposal
EL-SMA	DU-SMA			disposal

Comment #7287: General

Nagra, the National Cooperative for the Disposal of Radioactive Waste, has been founded in 1972 as a private organization in order to manage the task of finding and planning Swiss radwaste repositories. Shareholders are the Swiss nuclear power industry and the Swiss Confederation (on account of waste arisings from nuclear applications in medicine, industry and research).

Due to the actual state of Nagra's programmes, reported information will frequently include generic statements.

Reporting Group: **NEA-SD**

Inventory Reporting Date: December 2006

Waste Matrix Used: NEA-SD

Description: OECD/NEA sea dumping

Site Name	Facility Name	Facilities Defined		
N-Atlantic (foreign)	Sea Floor			disposal

Comment #372: Waste volumes

See IAEA-TECDOC-1105 (August 1999), Annex A.11.

Reporting Group BAG, Site Structure: CERN

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Centre Européen pour la Recherche Nucléaire

License Holder(s) : "Not licensed as a nuclear facility" / Organisation Européenne pour la Recherche Nucléaire

Comment #7294: CERN Wastes

CERN is located at the Swiss/French border, extending into both countries, and has the status a international research facility. Radwastes arise from operation and decommissioning of accelerators and experimental equipment. There is a general understanding that these wastes will be routed to disposal within the two host countries, but final decisions have not been made.

A small fraction of "Swiss" wastes, e.g. incinerable waste, is traditionally routed to the national delivery point (PSI-East) for treatment, conditioning and subsequent storage.

The remaining wastes, e.g. large-sized decommissioning waste, are stacked, partially after pretreatment, at dedicated CERN buildings, awaiting free release or conditioning. A project aiming at characterizing and inventorying pertinent wastes according to HSK standards has been launched in 2003, in order to meet potential requirements for subsequent disposal in a Swiss repository and to evaluate optimized conditioning methods.

Potential waste arisings for disposal in Switzerland are estimated to be in the order of 10,000 - 20,000 m3 (conditioned) LILW-SL.

The following list the waste management facilities that are located at this site.

Facility: WMF@CERN

Description	CERN Waste Management Facilities

Processing part of the "WMF@CERN" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1970, Estimate

Storage part of the "WMF@CERN" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
all@CERN	building	1970	No	No	No	No

Reporting Group BAG, Site Structure: PSI(BAG)

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Paul-Scherrer-Institut (Facilities under BAG supervision)

License Holder(s) : "Not licensed as a nuclear facility" / Paul-Scherrer-Institut

Comment #7296: PSI(BAG) Wastes

Wastes arising from decommissioning of accelerators and experimental equipment at PSI-West are, normally, not routed to the national delivery point at PSI-East. Instead, they are conditioned by grouting in large concrete containers which are used afterwards as shielding elements at site.

Due to their functionality, such waste-containing shielding elements are not (yet) waste in a legal sense, and any reference to "storage units" at PSI-West must be related to that aspect.

Expected overall volume for conditioned waste is around 10,000 m3 LILW-SL.

The following list the waste management facilities that are located at this site.

Facility: WMF@PSI-W

Description	Waste Management Facilities at PSI-West

Processing part of the "WMF@PSI-W" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	No	No	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1980, Estimate

Storage part of the "WMF@PSI-W" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	Yes	LILW-LL	No	No
HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
all@PSI-W	building	1980	No	No	No	No

Reporting Group HSK, Site Structure: KKB

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Beznau

License Holder(s) : Nordostschweizerische Kraftwerke AG, CH-5400 Baden

The following list the waste management facilities that are located at this site.

Facility: WMF@KKB

Description	Waste Management Facilities at KKB

Processing part of the "WMF@KKB" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1969

Storage part of the "WMF@KKB" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	Yes	Yes	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
all@KKB	various	1969	No	No	No	No
Type comment:	Refer to comment #374 under topic "Reporting Group : HSK"					

Reporting Group HSK, Site Data: KKB

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Beznau

Inventory Reporting Date: December 2006 Waste Matrix: HSK

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
KKB	Storage WMF@KKB	No	131	100	0	0	0	0	0	0	No
KKB	Storage WMF@KKB	Yes	1096	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Decontamination			same	
Evaporation				Yes

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Polymerization			same	

Reporting Group HSK, Site Structure: KKG

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Gösgen

License Holder(s) : Kernkraftwerk Gösgen-Däniken AG, Däniken

The following list the waste management facilities that are located at this site.

Facility: WMF@KKG

Description	Waste Management Facilities at KKG

Processing part of the "WMF@KKG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1979

Storage part of the "WMF@KKG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	Yes	Yes
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
all@KKG	various	1979	No	No	No	No
Type comment:	Refer to comment #374 under topic "Reporting Group : HSK"					

Reporting Group HSK, Site Data: KKG

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Gösgen

Inventory Reporting Date: December 2006 Waste Matrix: HSK

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
KKG	Storage WMF@KKG	No	46	100	0	0	0	0	0	0	No
KKG	Storage WMF@KKG	Yes	169	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Calcination			same	
Decontamination			same	
Evaporation			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			same	
Cementation			same	

Reporting Group HSK, Site Structure: KKL

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Leibstadt

License Holder(s) : Kernkraftwerk Leibstadt AG

The following list the waste management facilities that are located at this site.

Facility: WMF@KKL

Description	Waste Management Facilities at KKL

Processing part of the "WMF@KKL" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1984

Storage part of the "WMF@KKL" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	Yes	Yes	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
all@KKL	various	1984	No	No	No	No
Type comment:	Refer to comment #374 under topic "Reporting Group : HSK"					

Reporting Group HSK, Site Data: KKL

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Leibstadt

Inventory Reporting Date: December 2006 Waste Matrix: HSK

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
KKL	Storage WMF@KKL	No	56	100	0	0	0	0	0	0	No
KKL	Storage WMF@KKL	Yes	1480	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination			same	
Evaporation			same	
Size Reduction			same	
Super Compaction				Yes

Comment #7281: Supercompaction

Between the late 80's and 2001, KKL was temporarily hosting a mobile supercompactor for treatment of compactable mixed NPP waste, as a joint venture of all Swiss NPPs. In future, such treatment would be performed at ZWILAG.

Reporting Group HSK, Site Structure: KKM

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Mühleberg

License Holder(s) : BKW FMB Energie AG

The following list the waste management facilities that are located at this site.

Facility: WMF@KKM

Description	Waste Management Facilities at KKM

Processing part of the "WMF@KKM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1971

Storage part of the "WMF@KKM" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	Yes	Yes
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
all@KKM	various	1971	No	No	No	No
Type comment:	Refer to comment #374 under topic "Reporting Group : HSK"					

Reporting Group HSK, Site Data: KKM

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Kernkraftwerk Mühleberg

Inventory Reporting Date: December 2006 Waste Matrix: HSK

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
KKM	Storage WMF@KKM	No	96	100	0	0	0	0	0	0	No
KKM	Storage WMF@KKM	Yes	824	100	0	0	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination			same	
Size Reduction			same	
Thermal Treatment (non incineration)			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Reporting Group HSK, Site Structure: PSI(HSK)

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Paul-Scherrer-Institut (Facilities under HSK supervision)

License Holder(s) : Paul-Scherrer-Institut

The following list the waste management facilities that are located at this site.

Facility: WMF@PSI-E

Description	Waste Management Facilities at PSI-East (Nuclear Facilities under HSK supervision)

Processing part of the "WMF@PSI-E" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1967

Storage part of the "WMF@PSI-E" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	Yes	Yes	ZWILAG-u	No	No
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
all@PSI-E	various	1967	No	No	No	No
Type comment:	Refer to comment #378 under topic "Reporting Group : HSK"					

Reporting Group HSK, Site Data: PSI(HSK)

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Paul-Scherrer-Institut (Facilities under HSK supervision)

Inventory Reporting Date: December 2006 Waste Matrix: HSK

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
PSI(HSK)	Storage WMF@PSI-E	No	455	0	0	0	55.5	0	44.5	0	No
PSI(HSK)	Storage WMF@PSI-E	Yes	1155	0.38	0	0	85.42	0	14.2	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Incineration				Yes
Metal Melting			same	
Size Reduction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	
Encapsulation			same	
Grouting			same	

Reporting Group HSK, Site Structure: ZWILAG

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Zentrales Zwischenlager Würenlingen

License Holder(s) : Zwischenlager Würenlingen AG

The following list the waste management facilities that are located at this site.

Facility: WMF@ZWILAG

Description	Waste Management Facilities at ZWILAG

Processing part of the "WMF@ZWILAG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	Yes	Yes
ZWILAG-p	No	No	RPW-LILW	No	No
RPW-HLW	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	2001

Storage part of the "WMF@ZWILAG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
KKB	No	No	KKG	No	No
KKL	No	No	KKM	No	No
PSI(HSK)	No	No	ZWILAG-u	Yes	Yes
ZWILAG-p	Yes	Yes	RPW-LILW	No	Yes
RPW-HLW	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Lager H	building	2001	No	No	No	No
Lager M	bunker	2001	No	No	No	No
others	building	2001	No	No	No	No

Reporting Group HSK, Site Data: ZWILAG

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Zentrales Zwischenlager Würenlingen

Inventory Reporting Date: December 2006 Waste Matrix: HSK

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
ZWILAG-u	Storage WMF@ZWILAG	No	323	50.9	0	0	10.1	0	39	0	No
ZWILAG-p	Storage WMF@ZWILAG	Yes	524	97.5	0	0	0	0	2.5	0	No
RPW-HLW	Storage WMF@ZWILAG	Yes	40.3	0	0	100	0	0	0	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination			increase	
Incineration			increase	
Metal Melting			increase	
Super Compaction		Yes		

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Casting (of metal and slag)			same	
Cementation		Yes		
Grouting			increase	

Comment #9721: ZWILAG Plasma Arc Incinerator/Melter

Facilty designed to incinerate/decompose/melt mixed waste (organics, metals, inorganics) fed in drums by very high temperature treatment.. Primary process residues are molten slag (non-metallic residues immersed into molten glass) and molten metals. These are casted into 145 l moulds. After waste product solidification by cooling, the moulds are overpacked in 200 l drums.

Active commissioning of the facility has started in November 2004.

Reporting Group Nagra, Site Structure: EL-HAA/LMA

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Swiss repository project for high-level and long-lived intermediate-level waste

License Holder(s) :

Comment #355: Programme status EL-HAA/LMA (12/2006)

Feasibility demonstration for an EL-HAA/LMA in 1985 (Projekt Gewaehr 85), based on deep geologic disposal in crystalline host rock in northern Switzerland, led to follow-up project for completion of disposal feasibility demonstration. Subsequent extensive field investigations in areas of promising rock formations (crystalline and, as an extension, Opalinus clay in the northern part of the Canton of Zurich) lead to a supplementary feasibility study (Entsorgungsnachweis) which has been submitted to authorities in 2002, referring to Opalinus clay as candidate host rock. Swiss Government approved Entsorgungsnachweis on June 28, 2006. Region/site selection shall be based on the Sectoral Plan (Sachplan) as required by the new Nuclear Energy Ordinance (KEV). Multinational repository options are not to be ruled out yet.

Comment #7285: Information on Disposal Unit Capacities

Capacity numbers given are rough GUIDELINES FOR SITE SELECTION PURPOSES and refer to wastes at emplacement into disposal areas (i.e. they account for overpacking into disposal containers within repository site facilities). A reserve volume for spent fuel is included in the capacity planned for HAA disposal units. With the basic scenario, Swiss repositories defined below shall accommodate all Swiss radwaste (i.e. of NPP and any other origin) arisings as nowadays stored or being accumulated in future, until all of the Swiss NPP actually in operation are decommissioned. Note that these capacity data represent by definition an upper envelope for waste arisings which have been defined for safety assessment reports and engineering studies, relying on distinct scenarios. Excavation will be adjusted at construction time to meet effective needs.

Comment #9718: Conditioning Facilities Envisaged for EL-HAA/LMA

According to Nagra's actual plans, delivered waste units shall be conditioned / overpacked after reception at the site, before transport to disposal units:

(a) LMA units (small size packages): to be emplaced/grouted into standardized LMA disposal containers;

(b) canisters with vitrified HLW from reprocessing in transport & storage containers (TSC) : unloading from TSC, emplacement into disposal containers (cast iron), welding of the HAA disposal container.

[note: if direct disposal of spent fuel is to be planned/performed:

(c) spent fuel in TSC: transfer from TSC into BE disposal container, sealing of BE disposal container.]

The following list the waste management facilities that are located at this site.

Facility: DU-HAA

Description	Disposal Unit(s) for HAA

Disposal part of the "DU-HAA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
SMA	No	No	LMA	No	No
HAA	No	Yes			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	10000
Depth (m)	600-700		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1972	
design		2000	

Facility: DU-LMA

Description	Disposal Unit(s) for LMA

Disposal part of the "DU-LMA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
SMA	No	No	LMA	No	Yes
HAA	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	10000
Depth (m)	600-700		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1972	
design		2000	

Reporting Group Nagra, Site Structure: EL-SMA

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Full Name: Swiss repository project for low-level and short-lived intermediate-level waste

License Holder(s) :

Comment #353: Project status EL-SMA (12/2006)

Feasibility demonstration for an EL-SMA repository (Projekt Gewähr 1985) accepted by authorities in 1988. After a site selection procedure, Wellenberg, Canton of Nidwalden, has been selected as EL-SMA site in 1993 (application for general license to Confederation in 1994). Apart from licensing according to Atomic Law, a cantonal mining concession is required in Nidwalden for repository-bound excavation; this concession is subject to public referendum. Mining concession has been disapproved twice by the people of Nidwalden - 1995 (for exploratory drift and repository) and 2002 (for exploratory drift only) - despite the fact that the repository concept had been modified since 1995 to meet primary public concerns (extended monitoring, enhanced retrievability). After the 2002 vote, Wellenberg site has been abandoned by the potential operator.

In 2003, Nagra launched a programme to re-evaluate candidate host rocks/sites from the scratch and to reconsider alternative repository concepts. Region/site selection is going to be based on the Sectoral Plan (Sachplan) procedure, as required by the new Nuclear Energy Ordinance (KEV). Preliminary work on testing the procedure started mid 2006.

Comment #354: Project characteristics EL-SMA (12/2006)

EL-SMA facility description must be considered as being open. The total capacity envisaged remains, however, unaltered.

Comment #7286: Information on Disposal Unit Capacity

The capacity numbers given are rough GUIDELINES FOR SITE SELECTION PURPOSES and refer to wastes at emplacement into disposal areas (i.e. they account for overpacking into disposal containers within repository site facilities). With the basic scenario, Swiss repositories defined below shall accommodate all Swiss radwaste (i.e. of NPP and any other origin) arisings as nowadays stored or being accumulated in future, until all of the Swiss NPP actually in operation are decommissioned. Note that these capacity data represent by definition an upper envelope for waste arisings which have been defined for safety assessment reports and engineering studies, relying on distinct scenarios. Excavation will be adjusted at construction time to meet effective needs.

Comment #9719: Conditioning Facilities Envisaged for EL-SMA

After reception at the site, delivered waste units shall be conditioned / overpacked before transport to disposal units:

(a) Small-size packages: to be emplaced/grouted into standardized SMA disposal containers.

The following list the waste management facilities that are located at this site.

Facility: DU-SMA

Description	Disposal Unit(s) at EL-SMA

Disposal part of the "DU-SMA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
SMA	No	Yes	LMA	No	No
HAA	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	Yes
List SRS	No				

Reporting Group Nagra, Site Structure: EL-SMA

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Type	geological (cavern)		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	150000
Depth (m)			
Host medium	unknown (site not selected)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1978	
site selection		2003	

REGULATORS

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Name	HSK
Full Name	Swiss Federal Nuclear Safety Inspectorate
Division	Division for Transport and Waste Management Safety (SITE)
City or Town	CH-5232 Villigen-HSK

Comment #6658: Domain of Regulation / Supervision

Radwaste management at sites / facilities licensed under the Nuclear Energy Act (KEG).

Name	BAG
Full Name	Swiss Federal Office for Public Health
Division	Radiation Protection
City or Town	CH-3003 Berne

Comment #7233: Domain of Regulation / Supervision

Radwaste management at sites / facilities not licensed under the Nuclear Energy Act (KEG).

REGULATIONS / LAWS

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Name	KEG	
Title or Name	Nuclear Energy Act	
Reference Number	732.1	
Date Promulgated or Proclaimed	2003-03-21	Law

Name	KEV	
Title or Name	Nuclear Energy Ordinance	
Reference Number	732.11	
Date Promulgated or Proclaimed	2004-12-10	Law

Name	StSG	
Title or Name	Radiological Protection Act	
Reference Number	814.50	
Date Promulgated or Proclaimed	1991-03-22	Law

Name	StSV	
Title or Name	Radiological Protection Ordinance	
Reference Number	814.501	
Date Promulgated or Proclaimed	1994-06-22	Law

Name	StiFV	
Title or Name	Federal Ordinance on the Decommissioning Fund for Nuclear Facilities	
Reference Number	732.013	
Date Promulgated or Proclaimed	1983-12-05	Law

REGULATIONS / LAWS

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Name	VARA	
Title or Name	Ordinance on the Collection of Radioactive Waste (BAG supervision area)	
Reference Number	814.557	
Date Promulgated or Proclaimed	2002-09-03	Law

Name	R-14	
Title or Name	Requirements for Conditioning of Radioactive Waste	
Reference Number	HSK-R-14	
Date Promulgated or Proclaimed	2004-03-01	Regulation

Name	R-21	
Title or Name	Protection Objectives for the Disposal of Radioactive Waste	
Reference Number	HSK-R-21	
Date Promulgated or Proclaimed	1993-11-01	Regulation

Name	EntsFV	
Title or Name	Federal Ordinance on the Waste Management Fund for Nuclear Power Plants	
Reference Number	732.014	
Date Promulgated or Proclaimed	2000-03-06	Law

Name	LDC	
Title or Name	London Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter	
Reference Number		
Date Promulgated or Proclaimed	1972-12-29	Regulation

REGULATIONS / LAWS

Country: Switzerland (Swiss Confederation) Reporting Year: 2006

Name	R-52	
Title or Name	Transport and Storage Casks (T/S-Casks) for Interim Storage	
Reference Number	HSK-R-52	
Date Promulgated or Proclaimed	2003-07-01	Regulation

Name	R-13	
Title or Name	Free Release of Materials and Areas from Controlled Zones	
Reference Number	HSK-R-13	
Date Promulgated or Proclaimed	2002-02-01	Regulation

Name	GStSV	
Title or Name	Federal Ordinance on Fees in the Area of Radiation Protection	
Reference Number	814.56	
Date Promulgated or Proclaimed	2006-07-05	Law

Name	R-29	
Title or Name	Requirements for Interim Storage of Radioactive Waste	
Reference Number	HSK-R-29	
Date Promulgated or Proclaimed	2004-03-01	Regulation

MILESTONES

Country: Switzerland (Swiss Confederation) | Reporting Year: 2006

Start Year or Reference Year:	1978	End Year	1978
Description of Milestone			
Concept report on geological disposal in Switzerland (Nagra)			

Start Year or Reference Year:	1982	End Year	1982
Description of Milestone			
End of OECD/NEA sea dumping activities for LILW in the Northern Atlantic Ocean.			

Start Year or Reference Year:	1985	End Year	1988
Description of Milestone			
"Project Gewaehr 85": Feasibility demonstration for disposal of all waste categories in Switzerland submitted by Nagra in 1985. Decision of Federal Government in June 1988: demonstration for EL-SMA accepted, for EL-HAA/LMA (crystalline host rock) safety concept and engineering feasibility accepted, but siting feasibility yet to be demonstrated.			

Start Year or Reference Year:	1988	End Year	2004
Description of Milestone			
ZWILAG: Planning, construction and commissioning of a central storage facility for spent fuel, HLW and any other type of waste, with conditioning facilities and plasma arc incinerator/melter.			

Start Year or Reference Year:	1990	End Year	1992
Description of Milestone			
Implementation of a standardized, decentralized computer-based database system for Swiss radioactive waste (ISRAM), which enables characterization and book-keeping for all conditioned and most of unconditioned waste packages.			

Start Year or Reference Year:	1993	End Year	1995
Description of Milestone			
EL-SMA: Wellenberg identified as candidate site after a 12 years' site evaluation procedure (1993), agreement with local community (1994), applications for general licence (federal) and mining concession (cantonal) for exploratory drift and repository in 1994, mining concession being rejected by public referendum in June 1995.			

Start Year or Reference Year:	1996	End Year	2003
Description of Milestone			
EL-SMA: Despite decisions on a stepwise concession approach (first only exploratory drift, then repository), project modifications (monitoring, retrievability) and definition of exclusion criteria: negative outcome of a new cantonal vote on mining concession for an exploratory drift in September 2002. Wellenberg site is abandonded by the potential operator company GNW, which is formally disbanded in 2003 after completion of recultivation and settlement of further obligations.			

Start Year or Reference Year:	2002	End Year	2006
Description of Milestone			
EL-HAA/LMA: Completion of feasibility study (Project "Entsorgungsnachweis"), based on Opalinus clay host rock formation in Northern Switzerland (Zürcher Weinland). Report was submitted by Nagra to the Federal Government by end of 2002. At the same time, Nagra asked the Federal Government to agree to Nagra's proposal to focus future investigations for the Swiss SF/HLW/ILW programme on the Opalinus clay and the candidate siting area of the Zürcher Weinland. After review of Nagra's Technical documentation by national and international expert teams, the Federal Council approves the Entsorgungsnachweis on June 28, 2006. Focussing investigations on the proposed potential region was, however, disapproved. Instead, site selection shall be based on the Sectoral Plan (Sachplan) procedure as required by the new Nuclear Energy Ordinance (KEV), designed to identify finally at least two candidate sites - based on safety aspects, spatial planning criteria and public involvement.			

Country Waste Profile Report for Thailand

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 10:51:16

Waste Class Matrix(ces) Used/Defined

Country: Thailand, Kingdom of Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: Thailand

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
VLLW	100	0	0
LILW-SL	100	0	0
LILW-LL	0	100	0
HLW	0	0	100

Description: Thailand does not have any HLW even though HLW is part of the classification scheme. The classification scheme is specified in the Science and Technology Ministerial Regulation.

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X			
processed		X	X	X

Groups Overview

Country: Thailand, Kingdom of Reporting Year: 2006

Reporting Group: **National**

Inventory Reporting Date: December 2006

Waste Matrix Used: Thailand

Description: In this reporting group, a single theoretical site is defined. The waste quantities reported are the totals for actual sites located around Thailand. See the comment regarding inventory reporting date.

Site Name	Facility Name	Facilities Defined		
All Sites	OAP-WPF	processing		
	OAP-SF1		storage	
	OAP-SF2		storage	
	OAP-SRS		storage	

Comment #408: VLLW

VLLW is generated but not released due to a lack of regulation regarding release. It is not segregated from LLW and therefore is reported in the NEWMDB as part of LILW-SL waste

Reporting Group National, Site Structure: All Sites

Country: Thailand, Kingdom of Reporting Year: 2006

Full Name: A single theoretical site is defined to facilitate reporting to the NEWMDB. The waste quantities reported are the totals for actual sites located around Thailand, including those at the central facility located at the OAP, Bangkok.

License Holder(s) : TINT

Radioactive Waste Management Center

Thailand Institute of Nuclear Technology (TINT)

The following list the waste management facilities that are located at this site.

Facility: OAP-WPF

Description	Waste Processing Facility at the Office for Atoms for Peace, Bankgok, liquid waste treatment plant (chemical precipitation) since 1965, incinerator (20 kg/day) since 1992, compactor since 1992.

Processing part of the "OAP-WPF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
VLLW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1965

Facility: OAP-SF1

Description	Storage Facility 1 at the OAP in Bangkok, for the storage of SRS which are conditioned and some are not conditioned.

Storage part of the "OAP-SF1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
VLLW	No	No	LILW-SL	No	No
LILW-LL	No	No	HLW	No	No
SRS	Yes	No			
List SRS?	Yes				
Capacity	310 cubic metre				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
OAP-SF1	building	1996	No	No	No	Yes

Reporting Group National, Site Structure: All Sites

Country: Thailand, Kingdom of Reporting Year: 2006

Facility: OAP-SF2

Description	Storage Facility 2 at the OAP in Bangkok, capacity 292.5m3, for Radioisotope (RI) wastes which are already processed.

Storage part of the "OAP-SF2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
VLLW	Yes	Yes	LILW-SL	Yes	Yes
LILW-LL	Yes	Yes	HLW	No	No
SRS	No	No			
List SRS?	No				

Capacity	292.5 cubicmetre, for the storage of the RI wastes, for the conditioned and non-conditioned waste-drums (200 litre).

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
OAP-SF2	building	1999	No	No	No	No

Facility: OAP-SRS

Description	for storage of the conditioned SRS at the OAP in Bangkok,

Storage part of the "OAP-SRS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
VLLW	No	No	LILW-SL	Yes	No
LILW-LL	Yes	No	HLW	No	No
SRS	Yes	No			
List SRS?	Yes				

Capacity	15 drums (200 litre) for conditioned Radiumand 2 stainless steel container for condtitioned Cobalt-60 (420 Ci) and the condtitioned Ra-226(4 Ci) irradiator.

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SRS	cask	2001	No	No	No	Yes

Comment #7366: Conditioning of SRS under the support of IAEA

The first Radium-226 conditioning operation was performed under the support of the IAEA in year 2001. The total amount of Ra-226 was 4,823.6 mg(948 pieces). The second Radium-226 conditioning operation has been planned to operate in year 2004. For the conditioning of Co-60 source (420 ci) from the Radiological accident in Samutprakran province, Thailand in year 2000, was also supported by IAEA and successfully operated in year 2002.

Reporting Group National, Site Data: All Sites

Country: Thailand, Kingdom of Reporting Year: 2006

Full Name: A single theoretical site is defined to facilitate reporting to the NEWMDB. The waste quantities reported are the totals for actual sites located around Thailand, including those at the central facility located at the OAP, Bangkok.

Inventory Reporting Date: December 2006 Waste Matrix: Thailand

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LILW-SL	Storage OAP-SF2	No	3	90	0	0	10	0	0	0	No
LILW-SL	Storage OAP-SF2	Yes	100	10	0	0	90	0	0	0	No
LILW-SL	Storage OAP-SRS	Yes	4	0	0	0	100	0	0	0	No

Comment #6851: The additional characteristics of the waste

Unprocessed Waste are as follows:
1. Spent ion-exchange resin from the OAP Research Reactor, have been kept in 50 drums (50 litre), total about 2.5 cubic-metre
2. The iron-steel contaminated with Cs-137 from the Steel Factories, (products from the melting of scrap metal from East Europe), total volume about 2.5 cubic-metre

Waste Class	Status
VLLW (in Storage)	Waste data available, will not be reported.

Comment #6850: The additional characteristics of the waste

Most of processed solid waste came from the medical use, and universities. But the most of liquid waste came from the OAP research reactor and OAP laboratories.

Comment #7368: VLLW volume-reduction

Most VLLW solid wastes are generated by RI users.
Those VLLW are treated for volume reduction and then kept in 200 litre-drums at OAP-SF2. Now there are about 400 drums.

Waste Class	Status
LILW-LL (in Storage)	Waste data available, will not be reported.

Comment #6852: Current Status

There are TENORM waste, but they are exclused from Thai Atomic Engergy Act. Perhaps in the future, those TENORM waste may include in the inventory if the Regulator would have some guidance or regulations to control the TENORM wastes.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Compaction			same	
Decontamination			same	
Evaporation	Yes			
Incineration			same	
Ion Exchange			same	
Size Reduction	Yes			

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation		Yes	same	
Containerization	Yes			
Encapsulation	Yes			

Spent Sources <=30 years in storage Waste data available, will not be reported

Attachment #1357: SRS inventory (as of January 2004)

File name: SRS thailand.xls

Reporting Group National, Site Data: All Sites

Country: Thailand, Kingdom of Reporting Year: 2006

File type: MS Office Document

Spent Sources >30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq) Group I less than or equal 4GBq num./activity	Group II more than 4GBq but less than or equal 4E+4GBq num./activity	cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
Am-241 Neutron Gen.		2	No	Yes	0	3.99E+02	
		3.99E+02					
Ra-226	363		No	Yes	5	2.56E+02	
	2.56E+02						
Ra-226	5		No	Yes	5	8.00E-01	
	8.00E-01						
Am-241	293		No	Yes	5	2.21E+02	
	2.21E+02						
Ni-63	33		No	Yes	5	1.34E+01	
	1.34E+01						
Am-241		17	No	Yes	4	3.87E+02	
		3.87E+02					
Ra-226		948	Yes	No	5	1.92E+03	
		1.92E+03					

Attachment #1358: SRS inventory (as of January 2004)

File name: SRS thailand.xls

File type: MS Office Document

Multiple Nuclides Spent Sources in storage Waste data available, will not be reported

REGULATORS

Country: Thailand, Kingdom of Reporting Year: 2006

Name	OAP
Full Name	Office of Atoms for Peace
Division	Bureau of Radiation Safety Regulation, Bureau of Nuclear Safety Regulation,
City or Town	Bangkok

Comment #6848: Wastes that are regulated by the Regulator

Matrix Thailand - HLW, LILW-LL, LILW-SL, VLLW (exempt)
Note: At present, there is no HLW. The RW classifications need to be revised.

REGULATIONS / LAWS

Country: Thailand, Kingdom of Reporting Year: 2006

Name	AEPA 2504	
Title or Name	Atomic Energy for Peace Act, B.E 2504 (B.E = Buddishm Era) Ministerial Regulation on Waste Management B.E. 2546 (2003)	
Reference Number	Ministerial Regulation BE 2546 Art.1-13	
Date Promulgated or Proclaimed	2003-04-01	Regulation

Comment #6849: Wastes that are regulated by the Regulation

Matrix Thailand - HLW, LILW-LL, LILW-SL, VLLW (exempt)
Note: At present, there is no HLW

MILESTONES

Country: Thailand, Kingdom of

Reporting Year: 2006

Start Year or Reference Year:	1989	End Year	2003

Description of Milestone

The Thai cabinet had a resolution in 1989 to relocate the Nuclear Research Center, comprising the research reactor, waste management facility, isotope production facility and other nuclear facilities in OAEP to more appropriate and safe location due to it is located near the Bangkok airport. The Prequalified Bidding for the new nuclear research center was perfomed in 1995. The final Bidding was done in 1996. In 1997, the OAEP signed contract with General Atomics to design and establish the new Nuclear Research Center at Ongkarak district, Nakhonnayok Province, 60 km away from OAEP. In year 2003, the OAEP got the construction permit for the new Research reactor.

Start Year or Reference Year:	2004	End Year	2006

Description of Milestone

The construction of the Centralized Waste Processing and Storage Facilities at the new site, Ongkarak district, Nakhonnayok province has been delayed, due to the financial problem.

Start Year or Reference Year:	2005	End Year	2007

Description of Milestone

The Atomic Energy for Peace Act B.E.2504 is being revised to match the development of Nuclear Technology in the country.

Start Year or Reference Year:	2008	End Year	2010

Description of Milestone

New Milestone: The Radioactive Waste Management Center will be re-located at the new site, Ongkharak district, Nakhon Nayok province. The processing and incinerating facilities will be constructed during the 3 year plan.

The Project Schedule during year 2008-2010

Year	Items
2008	Design of Storage & Incineration Systems
2009	Construction of Storage & Incineration Systems
2010	Operation of Storage & Incineration Systems

Policies

Country: Thailand, Kingdom of | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	No

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	No

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Partially
5	specified a rational set of safety, radiological and environmental protection objectives	Partially
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
7	implemented controls over radioactive waste generation	Partially
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Partially
9	taken into account interdependencies among all steps in radioactive waste generation and management	Partially
10	implemented appropriate research and development to support the operational and regulatory needs	Partially
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Partially
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Partially

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Incomplete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Incomplete
17	define the responsibilities of waste generators and operators of waste management facilities	Incomplete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Incomplete
21	implement the licensing process	Incomplete
22	advise the government	Incomplete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Incomplete
101	comply with legal requirements	Incomplete

Policies

Country: Thailand, Kingdom of **National Systems** Reporting Year: 2006

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Partially
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Partially
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	No
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	No
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Partially
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Partially

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	No
41	Environmental Impact Statement (EIS)	No
42	Performance Assessment (PA)	No
43	Quality Assurance (QA)	No
44	Safety Assessment (SA)	No

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No

Policies

Country: Thailand, Kingdom of | **Disposal Facilities** | Reporting Year: 2006

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	No
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	No
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	Yes
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	No

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	No

	Spent Fuel	(Yes;No)
92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some

Country Waste Profile Report for

Ukraine

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 10:53:16

Waste Class Matrix(ces) Used/Defined

Country: Ukraine Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: Ukraine

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Mid-Active	99	1	0
Low-Active	99	1	0
High-Active	0	0	100

Description: Low-Active Radioactive Waste
For alpha emitters:1E-1 - 1E+3 kBq/kg
For beta, gamma emitters:1E+1 - 1E+5 kBq/kg

Mid-Active Radioactive Waste
For alpha emitters: 1E+5 - 1E+8 kBq/kg
For beta, gamma emitters: 1E+3 - 1E+6 kBq/kg

High-Active Radioactive Waste
Thermal power above about 2 kW/m3

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X	X		
processed			X	X

Groups Overview

Country: Ukraine Reporting Year: 2006

Reporting Group: **ChNPP**

Inventory Reporting Date: December 2006

Waste Matrix Used: Ukraine

Description: Reporting group ChNPP - Chornobyl NPP

Site Name	Facility Name	Facilities Defined		
Chorn NPP	SLRW		storage	
	SSRW		storage	

Reporting Group: **NNEC**

Inventory Reporting Date: December 2006

Waste Matrix Used: Ukraine

Description: Reporting group NNEC - National Nuclear Energy Generating Company, which include Khmelnitsky NPP, Rivne NPP, South-Ukraine NPP and Zaporizhzhya NPP

Site Name	Facility Name	Facilities Defined		
Khmel NPP	FROI	processing		
	SLRW		storage	
	SSRW		storage	
Rivne NPP	BF	processing		
	SLRW		storage	
	SSHRW1,2		storage	
	SSRW		storage	
SU NPP	SLRW		storage	
	SSRW		storage	
Zap NPP	IF	processing		
	PF	processing		
	SLRW		storage	
	SSRW		storage	

Groups Overview

Country: Ukraine Reporting Year: 2006

Reporting Group: **RADON**

Inventory Reporting Date: December 2006

Waste Matrix Used: Ukraine

Description: Reporting group RADON - State association "RADON", which include Dnipropetrovsk, Donetsk, Kiev, Kharkov, Lviv, Odessa Special enterprises and Special enterprise "Komplex"

Site Name	Facility Name	Facilities Defined		
Dnipr SE	Modul 4		storage	
	Modul 1			disposal
	Modul 2			disposal
	Modul 5			disposal
	SRS 1			disposal
Kh SE	FAC 1	processing		
	FAC 2	processing		
	Modul 21		storage	
	PIPE		storage	
	Modul 1-14			disposal
	Modul 18			disposal
	Modul 19			disposal
	Modul 20			disposal
	SRS 15-16			disposal
	SRS 17			disposal
Kiev SE	LRW		storage	
	Stor 1-3		storage	
	Modul 5-7			disposal
	Modul 8-10			disposal
	SRS 1-6			disposal
LvivSE	LRW		storage	
	Modul 4		storage	
	Modul 1			disposal
	Modul 2			disposal
	Modul 3			disposal
	Modul 5			disposal
	Modul 7			disposal
	Modul B			disposal
	SRS 1			disposal
	SRS 2			disposal
	SRS 3			disposal
Odessa SE	LRW		storage	
	Modul 1			disposal
	SRS 1			disposal
	SRS 2			disposal
SE Komplex	PTLRW		storage	
	PZRW			disposal
SE Tech	Vector			disposal

Reporting Group ChNPP, Site Structure: Chorn NPP

Country: Ukraine Reporting Year: 2006

Full Name: Chornobyl nuclear power plant

License Holder(s) : Chornobyl nuclear power plant
General Director: Gramotkin Igor
Tel: +38 04493 4 33 50
Fax: +38 04479 2 63 59

The following list the waste management facilities that are located at this site.

Facility: SLRW

Description	Tanks for liquid radioactive waste storage

Storage part of the "SLRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SLRW1	tank (stainless steel)	1977	No	No	Yes	No
SLRW2	tank (stainless steel)	1982	No	No	Yes	No

Facility: SSRW

Description	Building for solid radioactive waste storage

Storage part of the "SSRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSRW	building	1978	No	No	Yes	No

Reporting Group ChNPP, Site Data: Chorn NPP

Country: Ukraine Reporting Year: 2006

Full Name: Chornobyl nuclear power plant

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	20048	92	0	0	0	0	8	0	No
Comment #6835: The additional characteristics of the waste Unprocessed: flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											
Low-Active	Storage	No	1174	99	0	0	0	0	1	0	No
Comment #6836: The additional characteristics of the waste Unprocessed: flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											
High-Active	Storage	No	507	98	0	0	0	0	2	0	No
Comment #6837: The additional characteristics of the waste Unprocessed: flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											

Reporting Group NNEC, Site Structure: Khmel NPP

Country: Ukraine Reporting Year: 2006

Full Name: Khmelnitsky nuclear power plant

License Holder(s) : National nuclear energy generating company
President: Derkach Andrey
Tel: +38 044 294 48 70
Fax: +38 044 294 48 83
Director: Panaschenko Mykola
Tel: +38 03848 3 33 50
Fax: +38 03848 3 33 60

The following list the waste management facilities that are located at this site.

Facility: FROI

Description	Facility for radioactive oil incineration

Processing part of the "FROI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	2001

Facility: SLRW

Description	Tanks for liquid radioactive waste storage

Storage part of the "SLRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SLRW	tank (stainless steel)	1987	No	No	Yes	No

Reporting Group NNEC, Site Structure: Khmel NPP

Country: Ukraine Reporting Year: 2006

Facility: SSRW

Description	Moduls for solid radioactive waste storage

Storage part of the "SSRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSRW-1	building	1987	No	No	Yes	No
SSRW-2	building	2002	No	No	Yes	No

Reporting Group NNEC, Site Data: Khmel NPP

Country: Ukraine Reporting Year: 2006

Full Name: Khmelnitsky nuclear power plant

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	742	100	0	0	0	0	0	0	No
Mid-Active	Storage	Yes	700	100	0	0	0	0	0	0	No
Comment #6826: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible) Processed: liquid (organic)											
Low-Active	Storage	No	3408	100	0	0	0	0	0	0	No
Comment #6827: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											
High-Active	Storage	No	8	100	0	0	0	0	0	0	No
Comment #6828: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Evaporation			same	

Reporting Group NNEC, Site Structure: Rivne NPP

Country: Ukraine Reporting Year: 2006

Full Name: Rivne nuclear power plant

License Holder(s) :
National nuclear energy generating company
President: Derkach Andrey
Tel: +38 044 294 48 70
Fax: +38 044 294 48 83
Director: Fridman Mykola
Tel: +38 03636 2 23 14
Fax: +38 03636 2 23 60

The following list the waste management facilities that are located at this site.

Facility: BF

Description	Facility for radioactive waste bituminization

Processing part of the "BF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	2001

Facility: SLRW

Description	Tanks for liquid radioactive waste storage

Storage part of the "SLRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SLRW1	tank (stainless steel)	1980	No	No	Yes	No
SLRW2	tank (stainless steel)	1986	No	No	Yes	No

Reporting Group NNEC, Site Structure: Rivne NPP

Country: Ukraine Reporting Year: 2006

Facility: SSHRW1,2

Description	Modul for solid high-radioactive waste storage

Storage part of the "SSHRW1,2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSHRW1,2	building	1980	No	No	Yes	No

Facility: SSRW

Description	Moduls for solid radioactive waste storage

Storage part of the "SSRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSRW1,2	building	1980	No	No	Yes	No
SSRW3	building	1986	No	No	Yes	No
SSRW4	building	2001	No	No	Yes	No

Reporting Group NNEC, Site Data: Rivne NPP

Country: Ukraine Reporting Year: 2006

Full Name: Rivne nuclear power plant

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	6513	100	0	0	0	0	0	0	No
Mid-Active	Storage	Yes	527	100	0	0	0	0	0	0	No
Comment #6829: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible), toxic Processed: liquid (aqueous), liquid (organic)											
Low-Active	Storage	No	5242	100	0	0	0	0	0	0	No
Comment #6830: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible), toxic											
High-Active	Storage	No	49	100	0	0	0	0	0	0	No
Comment #6831: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible), toxic											

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization			decrease	

Reporting Group NNEC, Site Structure: SU NPP

Country: Ukraine Reporting Year: 2006

Full Name: South-Ukraine nuclear power plant

License Holder(s) : National nuclear energy generating company
President: Derkach Andrey
Tel: +38 044 294 48 70
Fax: +38 044 294 48 83
Director: Bilyk Boris
Tel: +38 044 227 26 61
Fax: +38 05136 2 18 32

The following list the waste management facilities that are located at this site.

Facility: SLRW

Description	Tanks for liquid radioactive waste

Storage part of the "SLRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	Yes	Yes			
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SLRW1	tank (stainless steel)	1982	No	No	Yes	No
SLRW2	tank (stainless steel)	1986	No	No	Yes	No
SLRW3	tank (stainless steel)	1989	No	No	Yes	No

Facility: SSRW

Description	Building for solid radioactive waste storage

Storage part of the "SSRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	Yes	Yes			
SRS	No	No			

List SRS?	No
Capacity	

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSRW1	building	1982	No	No	Yes	No
SSRW2	building	1997	No	No	Yes	No
SSLLRW	building	1982	No	No	Yes	No
SSRW3	building	2002	No	No	Yes	No

Reporting Group NNEC, Site Data: SU NPP

Country: Ukraine Reporting Year: 2006

Full Name: South-Ukraine nuclear power plant

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	3490	100	0	0	0	0	0	0	No
Comment #6832: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											
Low-Active	Storage	No	15736	100	0	0	0	0	0	0	No
Comment #6833: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											
High-Active	Storage	No	13	100	0	0	0	0	0	0	No
Comment #6834: The additional characteristics of the waste Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)											

Reporting Group NNEC, Site Structure: Zap NPP

Country: Ukraine Reporting Year: 2006

Full Name: Zaporizhzhya Nuclear Power Plant

License Holder(s) :
National nuclear energy generating company
President: Derkach Andrey
Tel: +38 044 294 48 70
Fax: +38 044 294 48 83
Director: Tischenko Vyacheslav
Tel.: +38 06139 3 38 78
Fax: +38 06139 3 19 12

The following list the waste management facilities that are located at this site.

Facility: IF

Description	Incineration facility

Processing part of the "IF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1990

Facility: PF

Description	Pressing facility

Processing part of the "PF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1991

Reporting Group NNEC, Site Structure: Zap NPP

Country: Ukraine Reporting Year: 2006

Facility: SLRW

Description	Tanks for liquid radioactive waste

Storage part of the "SLRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SLRW1	tank (stainless steel)	1984	No	No	Yes	No
SLRW2	tank (stainless steel)	1989	No	No	Yes	No

Facility: SSRW

Description	Building for solid radioactive waste storage

Storage part of the "SSRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	Yes	Yes
High-Active	Yes	Yes			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
SSRW1	building	1984	No	No	Yes	No
SSRW2	building	1989	No	No	Yes	No
SSRW3	building	1986	No	No	No	No

Reporting Group NNEC, Site Data: Zap NPP

Country: Ukraine Reporting Year: 2006

Full Name: Zaporizhzhya Nuclear Power Plant

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	3011	100	0	0	0	0	0	0	No
Mid-Active	Storage	Yes	5035	100	0	0	0	0	0	0	No

Comment #6823: The additional characteristics of the waste

Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)
Processed: flammable, liquid (aqueous), liquid (organic)

Class	Location	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
Low-Active	Storage	No	6025	100	0	0	0	0	0	0	No
Low-Active	Storage	Yes	832	100	0	0	0	0	0	0	No

Comment #6824: The additional characteristics of the waste

Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)
Processed: flammable, liquid (aqueous), liquid (organic)

Class	Location	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
High-Active	Storage	No	83	100	0	0	0	0	0	0	No

Comment #6825: The additional characteristics of the waste

Unprocessed: explosive, flammable, hazardous (chemical), liquid (aqueous), liquid (organic), resin, sludge, solid (dispersible), solid (non-dispersible)

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Evaporation			same	
Incineration			same	

Reporting Group RADON, Site Structure: Dnipr SE

Country: Ukraine Reporting Year: 2006

Full Name: Dnipropetrovsk State Interregion Special Enterprise

License Holder(s) : Dnipropetrovsk State Interreginal Special Enterprise,
Director: Svidersky Viktor,
Fax: +38 0562 93 07 33

The following list the waste management facilities that are located at this site.

Facility: Modul 4

Description	Storage for liquid radioactive waste

Storage part of the "Modul 4" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Modul 4	cask	1961	No	No	No	No

Facility: Modul 1

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	200	Capacity -planned (m3)	200
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2005	2008
EVENT: operation suspended		1981	

Reporting Group RADON, Site Structure: Dnipr SE

Country: Ukraine Reporting Year: 2006

Facility: Modul 2

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	200	Capacity -planned (m3)	200
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1983	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2005	2008

Facility: Modul 5

Description	Concrete modules for solid biological radioactive waste

Disposal part of the "Modul 5" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	50	Capacity -planned (m3)	50
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1983	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2005	2008

Reporting Group RADON, Site Structure: Dnipr SE

Country: Ukraine Reporting Year: 2006

Facility: SRS 1

Description	SRS Modul

Disposal part of the "SRS 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2005	2008

Reporting Group RADON, Site Data: Dnipr SE

Country: Ukraine Reporting Year: 2006

Full Name: Dnipropetrovsk State Interregion Special Enterprise

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	60	0	0	0	100	0	0	0	No
Comment #6803: The additional characteristics of the waste Unprocessed: liquid (aqueous)											
Mid-Active	Disposal	No	434	0	0	0	100	0	0	0	No
Comment #6804: The additional characteristics of the waste Unprocessed: biohazardous, flammable, resin, solid (dispersible), solid (non-dispersible)											

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Se-75	1			No	Yes	3	5.31E-03	
	5.31E-03							
Cs-137	73	110		No	Yes	3	5.90E+03	
	1.37E+02	5.76E+03						
Co-60	184			No	Yes	3	9.91E+00	
	9.91E+00							
Zn-65	3			No	Yes	3	5.20E-05	
	5.20E-05							
Y-88	1			No	Yes	3	1.10E-05	
	1.10E-05							
Sr-90	85			No	Yes	3	5.75E+00	
	5.75E+00							
Sn-113	1			No	Yes	3	1.84E-05	
	1.84E-05							
Pm-147	25			No	Yes	3	1.01E-02	
	1.01E-02							
Na-22	1			No	Yes	3	5.95E-05	
	5.95E-05							
Mn-54	1			No	Yes	3	4.74E-04	
	4.74E-04							
Hg-203	1			No	Yes	3	9.75E-06	
	9.75E-06							
H-3	1			No	Yes	3	1.01E-01	
	1.01E-01							
Fe-55	2			No	Yes	3	1.15E-02	
	1.15E-02							
Cs-137		119		No	Yes	3	7.50E+03	
		7.50E+03						
Cs-137	97			No	Yes	3	6.99E+01	
	6.99E+01							
Co-60	39			No	Yes	3	1.08E+01	
	1.08E+01							

Reporting Group RADON, Site Data: Dnipr SE

Country: Ukraine Reporting Year: 2006

Co-57	10			No	Yes	3	8.40E-03	
	8.40E-03							
Se-75	2			No	Yes	3	1.36E-02	
	1.36E-02							
Pm-147	44	2		No	Yes	3	5.19E+01	
	2.96E-02	5.19E+01						
P-32	13			No	Yes	3	1.21E+01	
	1.21E+01							
Na-22	1			No	Yes	3	3.55E-09	
	3.55E-09							
Ir-192	6			No	Yes	3	5.50E+00	
	5.50E+00							
Fe-55	4			No	Yes	3	3.32E-01	
	3.32E-01							
Co-60	207			No	Yes	3	4.39E+00	
	4.39E+00							
Cd-109	2			No	Yes	3	2.12E-04	
	2.12E-04							
Sr-90	8352			No	Yes	3	4.38E+01	
	4.38E+01							
Kr-85		2		No	Yes	3	9.80E+00	
		9.80E+00						
Ir-192		8		No	Yes	3	1.69E+04	
		1.69E+04						
H-3	169			No	Yes	3	3.40E+02	
	3.40E+02							
Cf-252		2		No	Yes	3	2.40E+04	
		2.40E+04						
Se-75	2			No	Yes	3	3.47E+00	
	3.47E+00							
Zn-65	8			No	Yes	3	9.24E-04	
	9.24E-04							
Y-88	12			No	Yes	3	1.43E-03	
	1.43E-03							
Tl-204	48			No	Yes	3	2.98E+00	
	2.98E+00							
Th-228	1			No	Yes	3	7.40E-01	
	7.40E-01							
Sn-113	10			No	Yes	3	1.37E-03	
	1.37E-03							
Pm-147	306	3		No	Yes	3	1.64E+03	
	1.50E+00	1.64E+03						
P-32	12			No	Yes	3	2.55E-01	
	2.55E-01							
Na-22	7			No	Yes	3	6.66E-04	
	6.66E-04							
Mn-54	9			No	Yes	3	1.05E-03	
	1.05E-03							
Hg-203	14			No	Yes	3	5.01E+00	
	5.01E+00							
Fe-55	6			No	Yes	3	1.01E+01	
	1.01E+01							

Cs-137	510	1055		No	Yes	3	7.06E+04	
	4.52E+02	7.01E+04						
Co-60	1239	19		No	Yes	3	7.26E+04	
	1.67E+01	7.26E+04						
Co-57	41	2		No	Yes	3	1.66E+01	
	5.90E+00	1.07E+01						
Ce-139	10			No	Yes	3	1.30E-03	
	1.30E-03							
Cd-109	9			No	Yes	3	3.37E+00	
	3.37E+00							
Tl-204	53			No	Yes	3	7.80E+00	
	7.80E+00							
Sr-90	559			No	Yes	3	1.10E+03	
	1.10E+03							
Pm-147		310		No	Yes	3	1.90E+03	
		1.90E+03						
Ir-192		122		No	Yes	3	7.00E+03	
		7.00E+03						
H-3	1118			No	Yes	3	2.30E+03	
	2.30E+03							
Cs-137		4993		No	Yes	3	2.80E+05	
		2.80E+05						
Co-60		695		No	Yes	3	4.60E+04	
		4.60E+04						

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Ra-226		1	No	Yes	2	3.12E+00	
		3.12E+00					
Ra-226	6		No	Yes	3	1.80E+00	
	1.80E+00						
Pu-239	5708		No	Yes	3	1.91E+01	
	1.91E+01						
Pu-238	1		No	Yes	3	1.13E+00	
	1.13E+00						
Ni-63	51		No	Yes	3	1.53E+00	
	1.53E+00						
Am-241		6	No	Yes	3	2.10E+01	
		2.10E+01					
Am-241	262		No	Yes	3	4.24E-01	
	4.24E-01						
U-235	1		No	Yes	3	1.02E-03	
	1.02E-03						
Ra-226	4		No	Yes	3	4.84E-02	
	4.84E-02						
Pu-239	1700		No	Yes	3	5.37E+01	
	5.37E+01						

Pu-238		6	No	Yes	3	1.23E+01	
		1.23E+01					
Pu-238	1		No	Yes	3	3.56E-07	
	3.56E-07						
Ni-63	8		No	Yes	3	2.95E-02	
	2.95E-02						
Am-241		52	No	Yes	3	6.69E+02	
		6.69E+02					
Pu-238		2	No	Yes	3	7.40E+01	
		7.40E+01					
U-233	1		No	Yes	3	8.36E-06	
	8.36E-06						
U-238	7		No	Yes	3	1.59E-05	
	1.59E-05						
U-234	5		No	Yes	3	8.30E-07	
	8.30E-07						
Th-232	1		No	Yes	3	9.04E-01	
	9.04E-01						
Ra-226	32		No	Yes	3	1.07E+00	
	1.07E+00						
Pu-239	20872	196	No	Yes	3	1.75E+03	
	9.80E+00	1.74E+03					
Pu-238	14		No	Yes	3	3.57E+00	
	3.57E+00						
Ni-63	82		No	Yes	3	7.40E-03	
	7.40E-03						
C-14	125		No	Yes	3	1.80E-02	
	1.80E-02						
Am-241	690		No	Yes	3	4.52E+02	
	4.52E+02						
Be-10		103	No	Yes	3	1.10E+03	
		1.10E+03					
Ra-226	52		No	Yes	3	1.70E+00	
	1.70E+00						
Pu-239	26848		No	Yes	3	3.50E+03	
	3.50E+03						
Am-241		199	No	Yes	3	1.50E+03	
		1.50E+03					

Multiple Nuclides Spent Sources in disposal

Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	2.180E-05	No	Yes	3	
Pu-238	1.090E-05				
Pu-239	1.090E-05				
Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	2.075E-05	No	Yes	3	
Pu-238	1.035E-05				
Pu-239	1.035E-05				
Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	1.800E-05	No	Yes	3	
Pu-238	9.000E-06				
Pu-239	9.000E-06				

Reporting Group RADON, Site Data: Dnipr SE

Country: Ukraine Reporting Year: 2006

Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	1.880E-05	No	Yes	3	
Pu-238	9.400E-06				
Pu-239	9.400E-06				
Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	1.890E-05	No	Yes	3	
Pu-238	9.450E-06				
Pu-239	9.450E-06				
Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	2.000E-05	No	Yes	3	
Pu-238	1.000E-05				
Pu-239	1.000E-05				
Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	2.000E-05	No	Yes	3	
Pu-238	1.000E-05				
Pu-239	1.000E-05				
Nuclide	Activity of Radionuclide (GBq)	cond.	uncond.	category.	Decay Date
U-233	1.900E-05	No	Yes	3	
Pu-238	9.500E-06				
Pu-239	9.500E-06				

Reporting Group RADON, Site Structure: Kh SE

Country: Ukraine Reporting Year: 2006

Full Name: Kharkov State Interregional Special Enterprise

License Holder(s) : Kharkov State Interregional Special Enterprise
Director: Sharov Volodymyr
Fax: +38 0572 94 34 80

The following list the waste management facilities that are located at this site.

Facility: FAC 1

Description	Facility for liquid radioactive waste cementation

Processing part of the "FAC 1" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1993

Facility: FAC 2

Description	Facility for liquid radioactive waste cementation

Processing part of the "FAC 2" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1995

Reporting Group RADON, Site Structure: Kh SE

Country: Ukraine Reporting Year: 2006

Facility: Modul 21

Description	Cask for liquid radioactive waste

Storage part of the "Modul 21" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Modul 21	cask	1961	No	No	No	No

Facility: PIPE

Description	Storage for radioactive contaminated pipes

Storage part of the "PIPE" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units						
Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PIPE	building	1997	No	No	No	No

Reporting Group RADON, Site Structure: Kh SE

Country: Ukraine Reporting Year: 2006

Facility: Modul 1-14

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 1-14" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	1200	Capacity -planned (m3)	1500
Depth (m)	6		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
operation		1990	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2008

Facility: Modul 18

Description	Concrete module for biological radioactive waste

Disposal part of the "Modul 18" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	30	Capacity -planned (m3)	60
Depth (m)	6		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
operation		1968	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2008
EVENT: operation suspended		1991	

Reporting Group RADON, Site Structure: Kh SE

Country: Ukraine Reporting Year: 2006

Facility: Modul 19

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 19" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	400	Capacity -planned (m3)	400
Depth (m)	6		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2008
EVENT: operation suspended		1996	

Facility: Modul 20

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 20" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	400	Capacity -planned (m3)	400
Depth (m)	6		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
operation		1968	
Additional Activities and Events			
ACTIVITY: upgrading		1997	1998
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2008
EVENT: operation suspended		1991	

Reporting Group RADON, Site Structure: Kh SE

Country: Ukraine Reporting Year: 2006

Facility: SRS 15-16

Description	Modules for Spent Radioactive Sources are operating

Disposal part of the "SRS 15-16" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	Yes				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1990	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2008

Facility: SRS 17

Description	Modul for Spent Radioactive Sources are not operating

Disposal part of the "SRS 17" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
operation		1961	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2008
EVENT: operation suspended		1991	

Reporting Group RADON, Site Data: Kh SE

Country: Ukraine | Reporting Year: 2006

Full Name: Kharkov State Interregional Special Enterprise

Inventory Reporting Date: December 2006 | Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	615	0	0	0	100	0	0	0	No
Comment #6808: The additional characteristics of the waste Unprocessed: liquid (aqueous), solid (non-dispersible) Processed: solid (non-dispersible)											
Mid-Active	Disposal	No	500	0	0	0	100	0	0	0	No
Mid-Active	Disposal	Yes	860	0	0	0	100	0	0	0	No
Comment #6809: The additional characteristics of the waste Unprocessed: flammable, resin, sludge, solid (dispersible), solid (non-dispersible) Processed: biohazardous, solid (dispersible), solid (non-dispersible)											

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation			same	

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Sr-90	18			No	Yes	3	3.52E-04	
	3.52E-04							
Cs-137	2			No	Yes	3	6.69E-05	
	6.69E-05							
Co-60	31	50		No	Yes	3	3.07E+02	
	1.70E+01	2.90E+02						
Co-57	1			No	Yes	3	1.21E-05	
	1.21E-05							
Sr-90	100			No	Yes	3	2.49E+01	
	2.49E+01							
Ir-192	1			No	Yes	2	2.32E+00	
	2.32E+00							
Cs-137	92	179		No	Yes	3	1.09E+04	
	1.41E+01	1.09E+04						
Co-60	3			No	Yes	3	5.71E+00	
	5.71E+00							
Co-60	1			No	Yes	3	2.61E-03	
	2.61E-03							
Sr-90		1		No	Yes	3	3.20E+01	
		3.20E+01						
Sr-90	165			No	Yes	3	5.32E+01	
	5.32E+01							
Tm-170	1			No	Yes	3	1.00E-04	
	1.00E-04							

Reporting Group RADON, Site Data: Kh SE

Country: Ukraine Reporting Year: 2006

Pm-147	21			No	Yes	3	1.00E-04	
	1.00E-04							
Na-22	1			No	Yes	3	1.00E-04	
	1.00E-04							
Ir-192	3			No	Yes	3	8.82E+00	
	8.82E+00							
Fe-55	2			No	Yes	3	2.31E-02	
	2.31E-02							
Cs-137		111		No	Yes	3	5.94E+03	
		5.94E+03						
Cs-137	78			No	Yes	3	2.02E+01	
	2.02E+01							
Co-60	1			No	Yes	3	1.67E-02	
	1.67E-02							
Co-60	75			No	Yes	3	1.81E-02	
	1.81E-02							
Co-57	2			No	Yes	3	1.00E-04	
	1.00E-04							
Co-56	1			No	Yes	3	1.00E-04	
	1.00E-04							
Ce-139	1			No	Yes	3	1.00E-04	
	1.00E-04							
Zn-65	79			No	Yes	3	1.41E-03	
	1.41E-03							
Tm-170	2			No	Yes	3	1.00E-07	
	1.00E-07							
Tl-204	1			No	Yes	3	4.57E-09	
	4.57E-09							
Sr-90	6456	3		No	Yes	3	2.12E+02	
	1.33E+02	7.87E+01						
Sn-119m	1			No	Yes	3	1.50E-06	
	1.50E-06							
Pm-147	10			No	Yes	3	1.27E-06	
	1.27E-06							
Na-22	3			No	Yes	3	5.36E-06	
	5.36E-06							
Mn-54	5			No	Yes	3	2.89E-08	
	2.89E-08							
Ir-192	12			No	Yes	3	8.82E-02	
	8.82E-02							
I-131	1			No	Yes	3	1.00E+00	
	1.00E+00							
Hg-203	5			No	Yes	3	1.00E+00	
	1.00E+00							
H-3	376			No	Yes	3	1.81E+02	
	1.81E+02							
H-3	43			No	Yes	3	9.79E-02	
	9.79E-02							
Fe-59	8			No	Yes	3	1.00E-07	
	1.00E-07							
Fe-55	2			No	Yes	3	3.40E-03	
	3.40E-03							

Reporting Group RADON, Site Data: Kh SE

Country: Ukraine Reporting Year: 2006

Cs-137	261	376		No	Yes	3	2.40E+04	
	1.29E+02	2.39E+04						
Co-60	424	3		No	Yes	3	1.16E+02	
	6.35E+00	1.10E+02						
Co-58	31			No	Yes	3	1.00E-07	
	1.00E-07							
Co-56	17			No	Yes	3	1.96E-04	
	1.96E-04							
Co-56	25			No	Yes	3	1.00E-07	
	1.00E-07							
Cf-252	1			No	Yes	3	8.19E-06	
	8.19E-06							
Tm-170	21			No	Yes	3	4.00E-02	
	4.00E-02							
Tl-204	4			No	Yes	3	2.10E+00	
	2.10E+00							
Tl-204	9			No	Yes	3	3.10E+00	
	3.10E+00							
Sr-90		20		No	Yes	3	1.60E+02	
		1.60E+02						
Sr-90	1837			No	Yes	3	3.00E+02	
	3.00E+02							
Sn-119m	3			No	Yes	3	8.10E-05	
	8.10E-05							
Sn-113	24			No	Yes	3	2.80E-08	
	2.80E-08							
Ru-106	1			No	Yes	3	8.00E-05	
	8.00E-05							
Po-210	130			No	Yes	3	3.80E-02	
	3.80E-02							
Pm-147	42	10		No	Yes	3	3.60E+02	
	1.80E-01	3.60E+02						
Na-22	14			No	Yes	3	5.30E-05	
	5.30E-05							
Mn-54	13			No	Yes	3	2.70E-07	
	2.70E-07							
Kr-85	1			No	Yes	3	2.30E+00	
	2.30E+00							
Ir-192	221			No	Yes	3	4.40E-01	
	4.40E-01							
I-125	2			No	Yes	3	2.60E-06	
	2.60E-06							
H-3		38		No	Yes	3	3.10E+04	
		3.10E+04						
Fe-55	15			No	Yes	3	2.00E+00	
	2.00E+00							
Eu-152		1		No	Yes	3	2.30E+01	
		2.30E+01						
Cs-137	568	1493		No	Yes	3	7.83E+04	
	2.70E+02	7.80E+04						
Co-60	1091	64		No	Yes	3	2.83E+02	
	2.30E+01	2.60E+02						

Reporting Group RADON, Site Data: Kh SE

Co-57	26			No	Yes	3	1.90E-04	
	1.90E-04							
Cd-109	22			No	Yes	3	3.80E-02	
	3.80E-02							
Cf-252	16	1		No	Yes	3	1.70E+01	
	5.30E-03	1.70E+01						

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Pu-239	1		No	Yes	3	9.89E-06	
	9.89E-06						
Pu-239	10098		No	Yes	3	3.16E+02	
	3.16E+02						
Am-241	82		No	Yes	3	2.71E+00	
	2.71E+00						
U-238	2		No	Yes	3	1.15E-06	
	1.15E-06						
Th-232	1		No	Yes	3	2.00E-05	
	2.00E-05						
Ra-226	5		No	Yes	3	3.59E-06	
	3.59E-06						
Pu-239		1	No	Yes	2	1.59E+02	
		1.59E+02					
Pu-239	9453		No	Yes	3	1.31E+01	
	1.31E+01						
Pu-238	2715		No	Yes	3	3.08E+00	
	3.08E+00						
Ni-63	10		No	Yes	3	8.11E+00	
	8.11E+00						
C-14	6		No	Yes	3	7.77E-02	
	7.77E-02						
Am-241	5	1	No	Yes	2	7.30E+01	
	4.79E+00	6.82E+01					
U-238	26		No	Yes	3	1.30E-03	
	1.30E-03						
Th-232	2		No	Yes	3	1.90E-02	
	1.90E-02						
Ra-226	978		No	Yes	3	1.90E-01	
	1.90E-01						
Pu-239		8	No	Yes	3	1.00E+02	
		1.00E+02					
Pu-239	18923		No	Yes	3	3.60E+02	
	3.60E+02						
Pu-238		78	No	Yes	3	8.00E+03	
		8.00E+03					
Pu-238	1553		No	Yes	3	9.10E+02	
	9.10E+02						

Reporting Group RADON, Site Data: Kh SE

Country: Ukraine Reporting Year: 2006

Ni-63	14		No	Yes	3	8.80E+00	
	8.80E+00						
C-14	5		No	Yes	3	3.70E-01	
	3.70E-01						
Am-243		1	No	Yes	2	1.50E+03	
		1.50E+03					
Am-241		75	No	Yes	2	1.10E+03	
		1.10E+03					
Am-241	160		No	Yes	3	9.80E+01	
	9.80E+01						

Reporting Group RADON, Site Structure: Kiev SE

Country: Ukraine Reporting Year: 2006

Full Name: Kiev State Interregional Special Enterprise

License Holder(s) : Kiev State Interregional Special Enterprise
Director: Andrievsky Volodymyr
Fax: +38 044 266 74 77

The following list the waste management facilities that are located at this site.

Facility: LRW

Description	Casks for liquid radioactive waste

Storage part of the "LRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Modul 12	cask	1962	No	No	No	No
Modul 13	cask	1962	No	No	No	No
Modul 14	cask	1962	No	No	No	No
Modul 15	cask	1986	No	No	No	No
Modul 16	cask	1986	No	No	No	No

Facility: Stor 1-3

Description	Building for storage solid radioactive waste in containers

Storage part of the "Stor 1-3" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
SRS	Yes	No			
List SRS?	Yes				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Stor 1	building	1995	No	No	No	Yes
Stor 2	building	1995	No	No	No	Yes
Stor 3	building	1995	No	No	No	Yes

Reporting Group RADON, Site Structure: Kiev SE

Country: Ukraine Reporting Year: 2006

Facility: Modul 5-7

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 5-7" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1200	Capacity -planned (m3)	1200
Depth (m)	4		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
operation		1975	
Additional Activities and Events			
ACTIVITY: upgrading		1997	1997
EVENT: operating license granted		1996	1999
EVENT: operating license granted		1999	2002
EVENT: operating license granted		2002	2005
EVENT: operating license granted		2005	2008
EVENT: operating license revoked		1996	1997
EVENT: operating license re-instated		1997	1997
EVENT: operation suspended		1989	

Reporting Group RADON, Site Structure: Kiev SE

Country: Ukraine Reporting Year: 2006

Facility: Modul 8-10

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 8-10" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	600	Capacity -planned (m3)	600
Depth (m)	4		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1996	1999
EVENT: operating license granted		1999	2002
EVENT: operating license granted		2002	2005
EVENT: operating license granted		2005	2008
EVENT: operating license revoked		1996	1997
EVENT: operating license re-instated		1997	1997
EVENT: operation suspended		1975	

Reporting Group RADON, Site Structure: Kiev SE

Country: Ukraine Reporting Year: 2006

Facility: SRS 1-6

Description	Moduls for spent radioactive sources disposal

Disposal part of the "SRS 1-6" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1996	1999
EVENT: operating license granted		1999	2002
EVENT: operating license granted		2002	2005
EVENT: operating license granted		2005	2008
EVENT: operation suspended		1996	

Reporting Group RADON, Site Data: Kiev SE

Country: Ukraine Reporting Year: 2006

Full Name: Kiev State Interregional Special Enterprise

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	590	0	0	0	99	0	1	0	No
Comment #6793: The additional characteristics of the waste Unprocessed: liquid (aqueous), solid (non-dispersible)											
Mid-Active	Disposal	No	1800	0	0	0	99	1	0	0	No
Comment #6794: The additional characteristics of the waste Unprocessed: biohazardous, flammable, resin, solid (dispersible), solid (non-dispersible)											

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Y-88	5			No	Yes	3	1.09E-04	
	1.09E-04							
Sn-113	7			No	Yes	3	1.04E-04	
	1.04E-04							
Ce-139	6			No	Yes	3	9.50E-05	
	9.50E-05							
Mn-54	6			No	Yes	3	1.42E-04	
	1.42E-04							
Tl-204	42			No	Yes	3	1.23E-05	
	1.23E-05							
Ir-192	27	10		No	Yes	3	2.64E+03	
	3.71E+01	2.61E+03						
Eu-152	2			No	Yes	3	4.68E-04	
	4.68E-04							
Pm-147	1			No	Yes	3	4.97E-01	
	4.97E-01							
Cs-137	173	55		No	Yes	3	4.95E+04	
	2.29E+02	4.93E+04						
Ba-133	2			No	Yes	3	7.23E-05	
	7.23E-05							
Cd-109	1			No	Yes	3	7.28E-05	
	7.28E-05							
Sr-90	700			No	Yes	3	1.35E+02	
	1.35E+02							
Kr-85	1			No	Yes	3	2.91E+00	
	2.91E+00							
Co-60	300	1		No	Yes	3	7.79E+02	
	1.11E+02	6.68E+02						
Zn-65	5			No	Yes	3	1.09E-04	
	1.09E-04							
Co-57	7			No	Yes	3	1.40E-04	
	1.40E-04							

Reporting Group RADON, Site Data: Kiev SE

Country: Ukraine Reporting Year: 2006

Na-22	7			No	Yes	3	1.18E-04	
	1.18E-04							
H-3		10		No	Yes	3	7.28E+02	
		7.28E+02						
Tl-204	10			No	Yes	3	1.07E-03	
	1.07E-03							
Th-228	3			No	Yes	3	1.81E-07	
	1.81E-07							
Tm-170	7			No	Yes	3	7.92E+00	
	7.92E+00							
Eu-152	5			No	Yes	3	1.30E-04	
	1.30E-04							
Na-22	10			No	Yes	3	5.64E-06	
	5.64E-06							
Mn-54	17			No	Yes	3	3.33E-07	
	3.33E-07							
Ba-133	6			No	Yes	3	1.46E-06	
	1.46E-06							
Ir-192	6			No	Yes	3	4.04E-06	
	4.04E-06							
Pm-147	3			No	Yes	3	7.95E+00	
	7.95E+00							
Cs-137		40		No	Yes	2	3.74E+03	
		3.74E+03						
Cs-137	98			No	Yes	3	8.40E+01	
	8.40E+01							
Cd-109	10			No	Yes	3	1.51E-05	
	1.51E-05							
Sr-90		17		No	Yes	3	2.97E+03	
		2.97E+03						
Sr-90		737		No	Yes	3	3.82E+03	
		3.82E+03						
Kr-85		1		No	Yes	3	8.45E+00	
		8.45E+00						
Kr-85	5			No	Yes	3	1.22E+00	
	1.22E+00							
Ce-139	11			No	Yes	3	4.26E-04	
	4.26E-04							
Co-60	49			No	Yes	3	3.91E+01	
	3.91E+01							
Co-57		45		No	Yes	3	5.76E+02	
		5.76E+02						
Fe-55	46			No	Yes	3	3.84E+00	
	3.84E+00							
H-3		30		No	Yes	3	2.46E+03	
		2.46E+03						
H-3	19			No	Yes	3	4.05E+01	
	4.05E+01							
Sr-85	1			No	Yes	2	9.66E-03	
	9.66E-03							
Po-210	32			No	Yes	3	1.43E-03	
	1.43E-03							

Reporting Group RADON, Site Data: Kiev SE

Country: Ukraine Reporting Year: 2006

Sr-90	23			No	Yes	3	9.50E+00	
	9.50E+00							
Ce-144	2			No	Yes	3	2.29E-07	
	2.29E-07							
Na-22	27			No	Yes	3	1.11E-01	
	1.11E-01							
Cf-252	60			No	Yes	2	7.65E-04	
	7.65E-04							
Mn-54	9			No	Yes	3	9.17E-04	
	9.17E-04							
Tm-170		7		No	Yes	2	4.43E+02	
		4.43E+02						
Th-228	7			No	Yes	3	6.13E-07	
	6.13E-07							
Tl-204	71			No	Yes	2	1.80E+01	
	1.80E+01							
Ir-192	570			No	Yes	2	3.67E-01	
	3.67E-01							
Eu-152	3			No	Yes	2	2.52E-05	
	2.52E-05							
Pm-147	28	4		No	Yes	3	2.11E+01	
	4.01E+00	1.71E+01						
Cs-137	928	1564		No	Yes	3	1.08E+05	
	1.34E+03	1.07E+05						
Ba-133	5			No	Yes	3	5.51E-05	
	5.51E-05							
Cd-109	20			No	Yes	3	1.36E-01	
	1.36E-01							
Sr-90	1273	16		No	Yes	3	9.73E+02	
	3.33E+02	6.40E+02						
Kr-85	37	27		No	Yes	3	2.17E+02	
	2.01E+01	1.97E+02						
Se-75	5			No	Yes	3	8.95E-08	
	8.95E-08							
Zn-65	23			No	Yes	3	5.05E-09	
	5.05E-09							
Co-60	980	653		No	Yes	3	1.62E+05	
	6.69E+02	1.61E+05						
Co-57	86			No	Yes	3	2.86E-03	
	2.86E-03							
Fe-55	22			No	Yes	2	6.89E-01	
	6.89E-01							
Na-22	9			No	Yes	3	1.38E-01	
	1.38E-01							
H-3		1198		No	Yes	3	2.97E+05	
		2.97E+05						
H-3	239			No	Yes	3	1.01E+02	
	1.01E+02							

Spent Sources >30 years in storage

Reporting Group RADON, Site Data: Kiev SE

Country: Ukraine Reporting Year: 2006

Nuclide	Number of Sources/Total Activity of Sources (GBq) Group I less than or equal 4GBq num./activity	Group II more than 4GBq but less than or equal 4E+4GBq num./activity	cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
Am-241	3		No	Yes	3	1.41E+00	
	1.41E+00						
Ra-226	2		No	Yes	3	4.90E-03	
	4.90E-03						
Th-232	2		No	Yes	3	8.51E-07	
	8.51E-07						
Am-241	394		No	Yes	3	3.13E+00	
	3.13E+00						
K-40	2		No	Yes	3	1.72E-05	
	1.72E-05						
U-238	10		No	Yes	3	3.03E-01	
	3.03E-01						
U-234	8		No	Yes	3	4.20E-07	
	4.20E-07						
U-233	2		No	Yes	3	1.51E-06	
	1.51E-06						
Pu-239	1925		No	Yes	3	7.63E+01	
	7.63E+01						
Pu-238	3		No	Yes	3	1.90E-04	
	1.90E-04						
Ra-226	3		No	Yes	3	2.13E-03	
	2.13E-03						
Ni-63	1		No	Yes	3	5.61E-01	
	5.61E-01						
Am-241	13		No	Yes	3	3.74E-02	
	3.74E-02						
U-233	5		No	Yes	3	1.88E-04	
	1.88E-04						
Pu-239	3285		No	Yes	3	1.25E+01	
	1.25E+01						
Pu-238	6		No	Yes	3	1.20E+00	
	1.20E+00						
Ra-226	21	1	No	Yes	3	3.65E+02	
	2.08E-04	3.65E+02					
Ni-63		30	No	Yes	3	7.55E+01	
		7.55E+01					
Al-26	5	4	No	Yes	3	1.17E+02	
	6.47E+00	1.11E+02					
Th-232	5		No	Yes	3	1.16E-05	
	1.16E-05						
K-40	14		No	Yes	3	2.10E-05	
	2.10E-05						
Pu-239 Neutron Gen.	62	6	No	Yes	2	6.15E+02	
	7.52E+01	5.40E+02					
Pu-238	14	1	No	Yes	3	3.35E+02	
	1.34E+01	3.22E+02					

Reporting Group RADON, Site Data: Kiev SE

Country: Ukraine Reporting Year: 2006

U-234	2		No	Yes	3	4.80E-08	
	4.80E-08						
Pu-239	18299	106	No	Yes	3	9.54E+02	
	6.44E+02	3.10E+02					
Am-241	93	4	No	Yes	3	5.57E+01	
	5.50E+00	5.02E+01					
Al-26	9		No	Yes	3	1.76E+01	
	1.76E+01						
C-14	6	140	No	Yes	3	4.56E+02	
	1.64E+00	4.54E+02					
U-238	15		No	Yes	3	4.44E+00	
	4.44E+00						
U-233	2		No	Yes	3	6.84E-05	
	6.84E-05						
Pu-239	5988		No	Yes	3	2.44E+02	
	2.44E+02						
Ra-226	74	4	No	Yes	3	5.06E+02	
	4.22E+01	4.64E+02					
Ni-63	231		No	Yes	2	5.08E+00	
	5.08E+00						

Reporting Group RADON, Site Structure: LvivSE

Country: Ukraine Reporting Year: 2006

Full Name: Lviv State Interregional Special Enterprise

License Holder(s) : Lviv State Interregional Special Enterprise. Director: Volochyi Yaroslav. Phone: +38 0322 71 23 26. Fax: +38 0322 51 19 00

The following list the waste management facilities that are located at this site.

Facility: LRW

Description	Cask for liquid radioactive waste

Storage part of the "LRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Cask 1	cask	1963	No	No	No	No

Facility: Modul 4

Description	Modul for solid radioactive waste

Storage part of the "Modul 4" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Modul 4	building	1989	No	No	No	No

Reporting Group RADON, Site Structure: LvivSE

Country: Ukraine Reporting Year: 2006

Facility: Modul 1

Description	Concrete modules for solid radioactive waste

Disposal part of the "Modul 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	200	Capacity -planned (m3)	200
Depth (m)	4		
Host medium	sedimentary rock (plastic clay)		

Phase	Estimate	Start Year	End Year
operation		1963	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009
EVENT: operation suspended		1982	

Facility: Modul 2

Description	Modul for solid radioactive waste

Disposal part of the "Modul 2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	120	Capacity -planned (m3)	120
Depth (m)	4		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1989	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009

Reporting Group RADON, Site Structure: LvivSE

Country: Ukraine Reporting Year: 2006

Facility: Modul 3

Description	Modul for solid radioactive waste

Disposal part of the "Modul 3" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	120	Capacity -planned (m3)	120
Depth (m)	4		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1989	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009

Facility: Modul 5

Description	Moduls 5,6,8 for solid radioactive waste

Disposal part of the "Modul 5" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	360	Capacity -planned (m3)	360
Depth (m)	4		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1989	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009

Reporting Group RADON, Site Structure: LvivSE

Country: Ukraine Reporting Year: 2006

Facility: Modul 7

Description	Modul for solid radioactive waste

Disposal part of the "Modul 7" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	120	Capacity -planned (m3)	120
Depth (m)	4		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1989	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009

Facility: Modul B

Description	Modul for solid biological radioactive waste

Disposal part of the "Modul B" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	100	Capacity -planned (m3)	100
Depth (m)	4		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1989	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009

Reporting Group RADON, Site Structure: LvivSE

Country: Ukraine Reporting Year: 2006

Facility: SRS 1

Description	Metalic - concrete modul. Operation Years:1982-1989.

Disposal part of the "SRS 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No

List SRS	Yes		
Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1982	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009
EVENT: operation suspended		1989	

Facility: SRS 2

Description	2 Moduls for disposal SRS in operation from 1989

Disposal part of the "SRS 2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes

List SRS	Yes		
Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1982	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009

Reporting Group RADON, Site Structure: LvivSE

Country: Ukraine Reporting Year: 2006

Facility: SRS 3

Description	Metalic - concrete modul

Disposal part of the "SRS 3" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	Yes
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
operation		1982	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2001
EVENT: operating license granted		2001	2004
EVENT: operating license granted		2004	2009

Reporting Group RADON, Site Data: LvivSE

Country: Ukraine Reporting Year: 2006

Full Name: Lviv State Interregional Special Enterprise

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Disposal	No	627	0	0	0	68	29	3	0	No

Comment #6799: The additional characteristics of the waste

Unprocessed: solid (dispersible), solid (non-dispersible)

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Sr-90	13			No	Yes	3	5.65E-06	
	5.65E-06							
Co-60	2			No	Yes	3	4.19E-06	
	4.19E-06							
Ir-192	7			No	Yes	3	1.67E+01	
	1.67E+01							
Cs-137		18		No	Yes	3	1.20E+03	
		1.20E+03						
Th-228	2			No	Yes	3	7.65E-04	
	7.65E-04							
Na-22	1			No	Yes	3	1.30E-06	
	1.30E-06							
Fe-55	1			No	Yes	3	1.52E-03	
	1.52E-03							
Tl-204	17			No	Yes	3	4.42E-04	
	4.42E-04							
Kr-85	17			No	Yes	3	6.03E+00	
	6.03E+00							
Pm-147	152			No	Yes	3	1.60E-01	
	1.60E-01							
Ir-192	51			No	Yes	2	1.81E+01	
	1.81E+01							
H-3	6549	51		No	Yes	2	2.87E+04	
	8.77E+00	2.87E+04						
Co-57	3			No	Yes	3	1.39E-05	
	1.39E-05							
Co-60	243			No	Yes	2	7.32E+01	
	7.32E+01							
Co-60	2			No	Yes	2	5.45E-02	
	5.45E-02							
Sr-90	4421			No	Yes	2	1.08E+02	
	1.08E+02							
Cs-137	43	811		No	Yes	2	3.48E+03	
	1.12E+01	3.47E+03						

Reporting Group RADON, Site Data: LvivSE

Country: Ukraine Reporting Year: 2006

H-3	2			No	Yes	3	3.77E+00	
	3.77E+00							
Pm-147	137			No	Yes	3	1.31E-04	
	1.31E-04							
Kr-85	8			No	Yes	3	1.00E+00	
	1.00E+00							
Ir-192		8		No	Yes	2	3.23E+02	
		3.23E+02						
Co-60	2			No	Yes	2	5.49E-02	
	5.49E-02							
Sr-90	58			No	Yes	3	1.75E+01	
	1.75E+01							
Cs-137	61	57		No	Yes	2	4.54E+03	
	6.83E+01	4.47E+03						
Na-22	1			No	Yes	3	1.70E-06	
	1.70E-06							
Fe-55	1			No	Yes	3	1.90E-03	
	1.90E-03							
Tl-204	17			No	Yes	3	5.31E-04	
	5.31E-04							
Ir-192		9		No	Yes	2	8.52E+01	
		8.52E+01						
Co-57	3			No	Yes	3	3.54E-05	
	3.54E-05							
Co-60	9			No	Yes	2	1.23E-04	
	1.23E-04							
Sr-90	67			No	Yes	3	3.52E+00	
	3.52E+00							
Cs-137	11	229		No	Yes	2	1.00E+04	
	5.16E-01	1.00E+04						
Kr-85	9			No	Yes	2	6.01E+00	
	6.01E+00							
Ir-192	10	9		No	Yes	2	4.41E+02	
	1.31E+00	4.39E+02						
H-3	6551			No	Yes	2	5.92E+00	
	5.92E+00							
Co-60	110	4		No	Yes	2	9.65E+01	
	2.36E+01	7.29E+01						
Sr-90	4355			No	Yes	2	9.37E+01	
	9.37E+01							
Cs-137	81	279		No	Yes	2	1.35E+04	
	2.68E+01	1.34E+04						
Pm-147	15			No	Yes	0	3.50E+00	
	3.50E+00							
Ir-192	412			No	Yes	0	1.90E+02	
	1.90E+02							
H-3		69		No	Yes	0	8.30E+04	
		8.30E+04						
Co-60	3543			No	Yes	0	3.30E+03	
	3.30E+03							
Sr-90	296			No	Yes	0	7.70E+02	
	7.70E+02							

Cs-137		1854		No	Yes	0	7.40E+04	
		7.40E+04						

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Pu-239	4		No	Yes	3	1.36E-04	
	1.36E-04						
Ra-226	2		No	Yes	3	7.65E-04	
	7.65E-04						
Am-241	401		No	Yes	3	7.01E+01	
	7.01E+01						
Pu-239	1041		No	Yes	3	9.79E-01	
	9.79E-01						
Pu-238	1		No	Yes	2	1.06E+00	
	1.06E+00						
Th-232	1		No	Yes	3	2.52E-05	
	2.52E-05						
Pu-239		4	No	Yes	3	5.08E+01	
		5.08E+01					
Pu-239	6544		No	Yes	3	8.74E+01	
	8.74E+01						
Pu-238		48	No	Yes	2	3.62E+02	
		3.62E+02					
Cf-251		8	No	Yes	0	8.00E+02	
		8.00E+02					
Be-10		8	No	Yes	0	1.50E+02	
		1.50E+02					
Am-241		1	No	Yes	0	2.20E+01	
		2.20E+01					
Am-241	153		No	Yes	0	2.18E+01	
	2.18E+01						
Ra-226		56	No	Yes	0	1.30E+02	
		1.30E+02					
Ra-226	1		No	Yes	0	5.00E-03	
	5.00E-03						

Reporting Group RADON, Site Structure: Odessa SE

Country: Ukraine Reporting Year: 2006

Full Name: Odessa State Interregional Special Enterprise

License Holder(s) : Odessa State Interregional Special Enterprise
Director: Bahchevan Dmytry
Fax: +38 048 732 36 00

The following list the waste management facilities that are located at this site.

Facility: LRW

Description	Cask for liquid radioactive waste

Storage part of the "LRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Cask 1	cask	1963	No	No	No	No
Cask 2	cask	1963	No	No	No	No

Facility: Modul 1

Description	Concrete moduls for radioactive waste disposal

Disposal part of the "Modul 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is modular			
Capacity - existing (m3)	583	Capacity -planned (m3)	583
Depth (m)	6		
Host medium	sedimentary rock (plastic clay)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2006

Reporting Group RADON, Site Structure: Odessa SE

Country: Ukraine Reporting Year: 2006

Facility: SRS 1

Description	Modul for disposal spent radioactive sources, 0,2 m3

Disposal part of the "SRS 1" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	Yes				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (plastic clay)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2006
EVENT: operation suspended		1991	

Facility: SRS 2

Description	Modul for disposal spent radioactive sources, 0,2 m3

Disposal part of the "SRS 2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	No	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	Yes				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	1	Capacity -planned (m3)	1
Depth (m)	6		
Host medium	sedimentary rock (plastic clay)		

Phase	Estimate	Start Year	End Year
operation		1962	
Additional Activities and Events			
EVENT: operating license granted		1995	1998
EVENT: operating license granted		1998	2003
EVENT: operating license granted		2003	2006

Reporting Group RADON, Site Data: Odessa SE

Country: Ukraine Reporting Year: 2006

Full Name: Odessa State Interregional Special Enterprise

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	199	0	0	0	99	1	0	0	No
Comment #6813: The additional characteristics of the waste Unprocessed: liquid (aqueous)											
Mid-Active	Disposal	No	496	0	0	0	98	2	0	0	No
Comment #6814: The additional characteristics of the waste Unprocessed: solid (non-dispersible)											

Spent Sources <=30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Ir-192		48		No	Yes	2	5.30E+03	
		5.30E+03						
Sr-90	1			No	Yes	2	1.50E-03	
	1.50E-03							
Cs-137		10		No	Yes	3	3.80E+02	
		3.80E+02						
Cs-137		30		No	Yes	2	7.47E+02	
		7.47E+02						
Co-60	40			No	Yes	3	4.32E+00	
	4.32E+00							
Cs-137		974		No	Yes	2	1.18E+05	
		1.18E+05						
P-32	317			No	Yes	3	2.10E-01	
	2.10E-01							
Ru-106	2			No	Yes	3	1.30E-03	
	1.30E-03							
Tl-204	9			No	Yes	3	3.80E+00	
	3.80E+00							
Ir-192		140		No	Yes	2	2.30E+03	
		2.30E+03						
Sr-90	1659			No	Yes	2	1.10E+02	
	1.10E+02							
Pm-147	2			No	Yes	3	1.70E-02	
	1.70E-02							
Po-210		35		No	Yes	2	2.00E+03	
		2.00E+03						
Co-60		539		No	Yes	2	9.20E+03	
		9.20E+03						
Kr-85		8		No	Yes	3	2.10E+04	
		2.10E+04						
H-3		9		No	Yes	3	3.13E+04	
		3.13E+04						

Reporting Group RADON, Site Data: Odessa SE

Country: Ukraine Reporting Year: 2006

Spent Sources >30 years in disposal

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					
Pu-238		10	No	Yes	2	2.92E+02	
		2.92E+02					
Pu-239	90		No	Yes	2	4.33E+01	
	4.33E+01						
Ra-226		80	No	Yes	2	3.37E+02	
		3.37E+02					
Pu-239	3361		No	Yes	3	1.60E+03	
	1.60E+03						
U-238	1		No	Yes	0	8.60E-02	
	8.60E-02						
Pu-238		51	No	Yes	3	2.24E+03	
		2.24E+03					
Ni-63	1		No	Yes	3	1.80E+00	
	1.80E+00						
Am-241	43		No	Yes	3	1.60E-03	
	1.60E-03						

Reporting Group RADON, Site Structure: SE Komplex

Country: Ukraine Reporting Year: 2006

Full Name: State Special Enterprise "Komplex"

License Holder(s) : State Special Enterprise "Komplex"
Director: Melnychenko Valentyn
Fax: +38 04493 5 17 08

The following list the waste management facilities that are located at this site.

Facility: PTLRW

Description	About 800 trenches and holes for temporary localization of radioactive waste, storages "Pidlisny" and "ChNPP III Stage"

Storage part of the "PTLRW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	No	Low-Active	No	No
High-Active	Yes	No			
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
PTLRW	trench (unlined)	1986	No	Yes	No	No
Pidlisny	building	1986	No	Yes	Yes	No
CNPP III	concrete pad	1986	No	Yes	No	No

Facility: PZRW

Description	Trenches for solid radioactive waste disposal - "Buryakivka"

Disposal part of the "PZRW" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	Yes	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	660000	Capacity -planned (m3)	660000
Depth (m)	6		
Host medium	sedimentary rock (plastic clay)		

Phase	Estimate	Start Year	End Year
operation		1987	
Additional Activities and Events			
EVENT: operating license granted		1996	1999
EVENT: operating license granted		1999	2003
EVENT: operating license granted		2003	

Reporting Group RADON, Site Data: SE Komplex

Country: Ukraine Reporting Year: 2006

Full Name: State Special Enterprise "Komplex"

Inventory Reporting Date: December 2006 Waste Matrix: Ukraine

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Mid-Active	Storage	No	1323000	0	0	0	0	0	100	0	No
Comment #6818: The additional characteristics of the waste Unprocessed: flammable, resin, sludge, solid (non-dispersible)											
Mid-Active	Disposal	No	577000	0	0	0	0	0	100	0	No
Comment #6819: The additional characteristics of the waste Unprocessed: flammable, resin, solid (non-dispersible)											
High-Active	Storage	No	3960	0	0	0	0	0	100	0	No
Comment #6822: The additional characteristics of the waste Unprocessed: flammable, resin, sludge, solid (non-dispersible)											

Reporting Group RADON, Site Structure: SE Tech

Country: Ukraine Reporting Year: 2006

Full Name: State Special Enterprise "Technocentr"

License Holder(s) : State Special Enterprise "Technocentr"
Director: Tokarevskyi Volodymyr
Fax: +38 044 264 66 91

The following list the waste management facilities that are located at this site.

Facility: Vector

Description	Modules for radioactive waste disposal

Disposal part of the "Vector" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Mid-Active	No	Yes	Low-Active	No	No
High-Active	No	No			
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	533644
Depth (m)	12		
Host medium	sedimentary rock (plastic clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1987	1990
site selection		1990	1991
design		1991	1997
construction		1997	

REGULATORS

Country: Ukraine Reporting Year: 2006

Name	SNRCU
Full Name	State Nuclear Regulatory Committee of Ukraine
Division	
City or Town	Kiev

Comment #6780: Wastes that are regulated by the Regulator

Matrix Ukraine - High-Active, Low-Active, Mid-Active

REGULATIONS / LAWS

Country: Ukraine Reporting Year: 2006

Name	Law 1	
Title or Name	About Ratification of the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management	
Reference Number	1688-III	
Date Promulgated or Proclaimed	2000-04-20	Law

Comment #6781: Wastes that are regulated by the Law

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Law 2	
Title or Name	On Use of Nuclear Energy and Radiation Safety	
Reference Number		
Date Promulgated or Proclaimed	1995-02-08	Law

Comment #6782: Wastes that are regulated by the Law

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Law 3	
Title or Name	On Radioactive Waste Management	
Reference Number		
Date Promulgated or Proclaimed	1995-04-30	Law

Comment #6783: Wastes that are regulated by the Law

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Law 4	
Title or Name	On Permissive Activities in the Nuclear Energy Field	
Reference Number	1370-XIV	
Date Promulgated or Proclaimed	2000-01-11	Law

Comment #6784: Wastes that are regulated by the Law

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Law 5	
Title or Name	On Physical Protection of Nuclear Materials, Radioactive Wastes and Other Radiation Sources	
Reference Number	2064-III	
Date Promulgated or Proclaimed	2000-10-19	Law

Comment #6785: Wastes that are regulated by the Law

Matrix Ukraine - High-Active, Low-Active, Mid-Active

REGULATIONS / LAWS

Country: Ukraine Reporting Year: 2006

Name	Law 6	
Title or Name	On Protection of Population from Radiation Effects	
Reference Number	15/98-BP	
Date Promulgated or Proclaimed	1998-01-14	Law

Comment #6786: Wastes that are regulated by the Law

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Reg 1	
Title or Name	Requirement to the Structure and Content of Safety Analysis Report of the Radioactive Waste Treatment Facility	
Reference Number	306.3.02/3.043-2001	
Date Promulgated or Proclaimed	2001-01-26	Regulation

Comment #6787: Wastes that are regulated by the Regulation

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Reg 2	
Title or Name	Requirements to the Structure and Content of Safety Analysis Report of the Near Surface Disposal Facilities of Radioactive Waste	
Reference Number	NP 306.3.02/3.038-2000	
Date Promulgated or Proclaimed	2000-10-02	Regulation

Comment #6788: Wastes that are regulated by the Regulation

Matrix Ukraine - Low-Active, Mid-Active

Name	Reg 3	
Title or Name	Rules and Procedure to Release Radioactive Waste and By-product Radioactive Materials from Regulatory Control	
Reference Number		
Date Promulgated or Proclaimed	1997-12-10	Regulation

Comment #6789: Wastes that are regulated by the Regulation

Matrix Ukraine - Low-Active, Mid-Active

Name	Reg 4	
Title or Name	Procedure of the State Inventory of Radioactive Waste	
Reference Number	306.5.04/2.059-2002	
Date Promulgated or Proclaimed	2003-02-11	Regulation

Comment #6790: Wastes that are regulated by the Regulation

Matrix Ukraine - High-Active, Low-Active, Mid-Active

REGULATIONS / LAWS

Country: Ukraine Reporting Year: 2006

Name	Reg 5	
Title or Name	Norms of the Radiation Protection of Ukraine. Supplement:Radiation Protection from Sources of the Potential Irradiation	
Reference Number		
Date Promulgated or Proclaimed	2000-06-12	Regulation

Comment #6791: Wastes that are regulated by the Regulation

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Reg 6	
Title or Name	Sanitary Rules of Radioactive Waste Management	
Reference Number		
Date Promulgated or Proclaimed	1985-10-01	Regulation

Comment #6792: Wastes that are regulated by the Regulation

Matrix Ukraine - High-Active, Low-Active, Mid-Active

Name	Reg 7	
Title or Name	Safety Conditions and Requirements (Licensing Conditions) on Activities Associated with Radioactive Waste Processing, Storage and Disposal	
Reference Number	NP 306.5.04/2.060-2002	
Date Promulgated or Proclaimed	2002-11-06	Regulation

Name	Reg 8	
Title or Name	Provisions on the List and Requirements on the Format and Content of Documents Submitted by the Operating Organisation to Obtain Licences for Activities at Specific Stages of Radioactive Waste Disposal Facility Lifetime	
Reference Number	NP 306.2.02/3.037-2000	
Date Promulgated or Proclaimed	2000-08-15	Regulation

Name	Reg 9	
Title or Name	Safety Conditions and Requirements (Licensing Conditions) on Activities Associated with Radioactive Waste Processing, Storage and Disposal	
Reference Number	np 306.5.04/2.060-2002	
Date Promulgated or Proclaimed	2000-11-06	Regulation

Policies

Country: Ukraine | Reporting Year: 2006

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	No

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	No

	Requirements	(Yes;Partially;No)
	Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?	
4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	No
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	No
12	implemented formal mechanisms for disseminating information to the public and for public consultation	No

	Responsibilities	(Complete;Incomplete)
	Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.	
	Member State Responsibility	
15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Incomplete
	Regulatory Body Responsibility	
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
	Waste Generator and Operators of Waste Management Facilities Responsibility	
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

Policies

	Activities	(Yes;Partially;No)
	To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?	
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Partially
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Partially
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Partially
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Partially

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
	If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.	
40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

Policies

Country: Ukraine | **Disposal Facilities** | Reporting Year: 2006

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
	If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.	
52	access restrictions	No
53	drainage and/or leachate collection system(s)	No
54	leachate treatment systems	No
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes
58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	Yes
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	No
69	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
109	Will some or all of the product(s) of processing/reprocessing be returned to your country?	No

Policies

Country: Ukraine | **Processing/Storage** | Reporting Year: 2006

110	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)

Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)

71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	No
77	**Are there local-level registries (one or more)?**	No

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)

Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?

80	Government to Government agreements	No
81	Government - Supplier agreements	No
82	Supplier-User agreements	No
84	Do any agreements include suppliers that are outside of your Country?	No

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	Yes
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	Yes

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

	Spent Fuel	(Yes;No)

92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	No

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	No
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Country Waste Profile Report for United Kingdom

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Country Waste Profile Report for

United States of America

Reporting year: 2006

For guidance on reading Country Waste Profile Reports, please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles8/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

Report published on 2008-02-28 15:05:16

Waste Class Matrix(ces) Used/Defined

Country: United States of America Reporting Year: 2006

Waste Class Matrix: IAEA Def. , Not Used

Description: The Agency's standard matrix

Waste Class Matrix: USDOE

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
HLW	0	0	100
TRU	0	100	0
LLW	99.5	0.5	0
11e2 Byproduct Material	100	0	0

Description: Reference for USDOE classes: Radioactive Waste Management Manual, DOE M 435.1, 7/9/1999

Comment #85: Waste Class Comment

The US DOE has a waste class called "11e2" which is essentially by-product material. Keeping with NEWMDB guidance, this year "exsitu" remediation waste, e.g., moved to a disposal cell, will be reported. UMMT disposal cells will not be reported.

Attachment #1362: White paper with DOE waste classfication information and crosswalk to IAEA

File name: DOEwastematrix.wpd

File type: WordPerfect Document

Member State's Reference # 1

Waste Class Matrix: USNRC

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Class A LLW	100	0	0
Class B LLW	100	0	0
Class C LLW	75	25	0
Greater than Class C LLW	0	100	0
HLW	0	0	100
11e2 Byproduct Material	100	0	0

Description: NRC waste classes defined in Title 10, Code of Federal Regulations, Part 61, Subpart 55. 11e2 byproduct materials are not wast under Part 61 regulations. See separate comment on this NEWMDB reporting class.
Class C split based on analysis of actual data

Comment #7234: USNRC - 11e2

11e2 materials by definition are byproduct materials under regulations. These materials are composed of UMMT or equivalent. However, because the NEWMDB reporting requirements address UMMT materials that are moved, there is a need to have this shown as a waste class. The waste class does not fit the IAEA categories, but since surface disposed, for NEMWDB reporting is shown as 100% LILW-SL.

Attachment #1361: White paper on USNRC waste classification crosswalk to IAEA classes

File name: NRCwastematrix.wpd

File type: WordPerfect Document

Member State's Reference # 2

Waste Class Matrix(ces) Used/Defined

Country: United States of America Reporting Year: 2006

Waste Class Matrix: Past

Waste Class Name	LILW_SL%	LILW_LL%	HLW%
Ocean-disposed	99	1	0

Description: Between 1946 and 1970 the United States disposed of waste at several locations in the Atlantic Ocean and Pacific Ocean before such practices were discontinued under the London Convention. The % split between the LILW-SL and LILW-LL is an approximation.

Definition of «unprocessed waste» and «processed waste»:

This country uses the following definitions:

	as-generated waste	processed for handling	processed for storage	processed for disposal
unprocessed	X	X		
processed			X	X

Comment #14543: Definitions for Unprocessed Waste and Processed W

The definition used by the USA generally means that waste packaged for (long-term) storage or disposal is reported as processed. Remedial action waste, e.g., debris and soils, are generally disposed of as unprocessed waste because they are shipped and disposed in bulk form. In the case of mixed radioactive and hazardous waste, the waste has been treated in accordance with hazardous waste regulations.

Groups Overview

Country: United States of America Reporting Year: 2006

Reporting Group: **Commercial**

Inventory Reporting Date: December 2006

Waste Matrix Used: USNRC

Description: Sites Licensed by USNRC or Agreement States

Site Name	Facility Name	Facilities Defined		
Barnwell	Barnwell			disposal
Clive	MLLWproc	processing		
	11e2disp			disposal
	LLWdisp			disposal
	MLLWdisp			disposal
Closed LLW	Beatty			disposal
	MaxeyFlats			disposal
	Sheffield			disposal
	WestValley			disposal
National	Processors	processing		
	GTCC - SRS		storage	
	GTCC-NPP		storage	
	GTCC-Other		storage	
Richland	LLWdisp			disposal
WCS	Treatment	processing		
	Storage		storage	

Groups Overview

Country: United States of America Reporting Year: 2006

Reporting Group: **Government**

Inventory Reporting Date: December 2006

Waste Matrix Used: USDOE

Description: United States Department of Energy owned facilities

Site Name	Facility Name	Facilities Defined		
Cheney	11e2 cell			disposal
FEMP	OSDF			disposal
Hanford	LLWFac	processing	storage	
	TRUFac	processing	storage	
	CSB		storage	
	TankFarms		storage	
	WESF		storage	
	ERDF			disposal
	LLWdisp			disposal
	MLLWdisp			disposal
INL	AMWTF	processing	storage	
	INTEC	processing	storage	
	CERCLA			disposal
	RWMC-SDA			disposal
LANL	CMR SRS	processing		
	TA-54 SRS	processing		
	TA-54 TRU	processing	storage	
	TA54 AreaG	processing		disposal
LLNL	Proc/Store	processing	storage	
Monticello	11e2 Cell			disposal
NFS	Storage		storage	
NTS	Area 5 TRU		storage	
	Area 5 GCD			disposal
	Area 5 MW			disposal
	Area3&5LLW			disposal
OakRidge	TSCAI	processing		
	ORRLLW/TRU	processing	storage	
	EMWMF			disposal
	Hydrofract			disposal
	OldBurial			disposal
	ORNL/IWMF			disposal
OCRWM	Repository			disposal
OtherDOE	Various	processing	storage	
Paducah	Proc/Store	processing	storage	
Portsmouth	Proc/Store	processing	storage	
SRS	DWPF	processing		
	E-AreaFac	processing	storage	
	HLW Tanks	processing	storage	
	GlassStore		storage	
	BurialGrd			disposal
	E-AreaDisp			disposal
	Saltstone			disposal
WIPP	WIPP			disposal
WSSRAP	11e2 cell			disposal
WVDP	TRU&LLW	processing	storage	
	HLW		storage	

Groups Overview

Country: United States of America Reporting Year: 2006

Reporting Group: **OtherGovt**

Inventory Reporting Date: December 2006

Waste Matrix Used: USDOE

Description: Niagara Falls Storage Site currently managed by U.S. Army Corps of Engineers under Formerly Utilized Sites Remedial Action Project

Site Name	Facility Name	Facilities Defined		
NFSS	11e2			disposal

Reporting Group: **PastPract**

Inventory Reporting Date: December 2006

Waste Matrix Used: Past

Description: Past practice ocean dumping sites

Site Name	Facility Name	Facilities Defined		
Atlantic	SeaDispose			disposal
Pacific	SeaDispose			disposal

Comment #7239: Ocean Dumping Information

Provided to IAEA on 27 October 1989.

Reporting Group Commercial, Site Structure: Barnwell

Country: United States of America Reporting Year: 2006

Full Name: Barnwell

Location: Barnwell, South Carolina

License Holder(s) : Chem Nuclear / EnergySolutions, licensed by the State of South Carolina (USNRC Agreement State)

The following list the waste management facilities that are located at this site.

Facility: Barnwell

Description	LLW disposal facility

Disposal part of the "Barnwell" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	Yes	Class B LLW	Yes	Yes
Class C LLW	Yes	Yes	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	880000	Capacity -planned (m3)	880000
Depth (m)	1-9		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
commissioning		1971	1971
operation		1971	2038
closure	Yes	2039	2044
institutional control	Yes	2045	

Comment #7248: Barnwell Disposal Facility

Under current license from the State of South Carolina, this facility will only accept waste from generators withing the Atlantic Compact (regional group of states) in 2008.

Reporting Group Commercial, Site Data: Barnwell

Country: United States of America Reporting Year: 2006

Full Name: Barnwell

Inventory Reporting Date: December 2006 Waste Matrix: USNRC

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Class A LLW	Disposal	Yes	715974	62	14	0	15	0	9	0	Yes

Comment #5671: Waste classes and generator %

1986-2005 data on waste classification and generators (MIMS database) was extrapolated to historical data (1971-1985) found in the IDB report Rev 9. Splits between class and generator are therefore estimates based on best data available.

Class	Location	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
Class B LLW	Disposal	Yes	52319	94	0	0	5	0	1	0	Yes

Comment #5672: Waste class and generator %

1986-2005 data on waste classification and generators (MIMS database) was extrapolated to historical data (1971-1985) found in the IDB report Rev 9. Splits between class and generator are therefore estimates based on best data available.

Class	Location	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
Class C LLW	Disposal	Yes	26093	90	0	0	8	0	2	0	Yes

Comment #5673: Waste class and generator %

1986-2005 data on waste classification and generators (MIMS database) was extrapolated to historical data (1965-1985) found in the IDB report Rev 9. Splits between class and generator are therefore estimates based on best data available.

Reporting Group Commercial, Site Structure: Clive

Country: United States of America Reporting Year: 2006

Full Name: EnergySolutions, Clive

License Holder(s) : EnergySoltuions (licenses by State of Utah as USNRC Agreement State)

The following list the waste management facilities that are located at this site.

Facility: MLLWproc

Description	Mixed low-level waste processing of waste prior to disposal in the MLLW cell

Processing part of the "MLLWproc" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1995

Facility: 11e2disp

Description	11e2 byproduct material disposal cell

Disposal part of the "11e2disp" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	Yes	Yes
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	3440000	Capacity -planned (m3)	3440000
Depth (m)	0		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
construction			1988
commissioning		1988	1988
operation		1988	2023
closure	Yes	2024	2024
institutional control	Yes	2025	

Comment #7238: 11e2 disposal

Envirocare established a 11e2 byproduct material disposal cell adjacent to USDOE UMTRA (UMMT) facility. Information does not include USDOE waste data.

Reporting Group Commercial, Site Structure: Clive

Country: United States of America Reporting Year: 2006

Facility: LLWdisp

Description	disposal facility for class A low-level waste

Disposal part of the "LLWdisp" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	Yes	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	4571000	Capacity -planned (m3)	4571000
Depth (m)	10		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1988	1988
site selection		1988	1988
design		1988	1990
construction		1990	1990
commissioning		1991	1991
operation		1991	2023
closure	Yes	2024	2024
institutional control	Yes	2025	

Comment #7237: Waste

Capacity as of 12/31/2003 from Envirocare of Utah email. Low Activity Class A disposal begian in 1991 and full Class A disposal begin in 2001. Efforts to obtain a license and approval to operate Class B and C disposal facilities were terminated in 2004.

Reporting Group Commercial, Site Structure: Clive

Country: United States of America Reporting Year: 2006

Facility: MLLWdisp

Description	Disposal facility for Class A mixed low-level waste

Disposal part of the "MLLWdisp" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	Yes	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	816000	Capacity -planned (m3)	816000
Depth (m)	10		
Host medium	sedimentary rock (consolidated clay)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1988	1988
site selection		1988	1988
design		1988	1990
construction		1990	1994
commissioning		1995	1995
operation		1995	2023
closure	Yes	2024	2123
institutional control	Yes	2124	

Reporting Group Commercial, Site Data: Clive

Country: United States of America Reporting Year: 2006

Full Name: EnergySolutions, Clive

Inventory Reporting Date: December 2006 Waste Matrix: USNRC

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Class A LLW	Disposal	No	2639611	5	0	0	0	0	95	0	Yes
Class A LLW	Disposal	Yes	91448	0	0	0	0	0	100	0	Yes
Comment #9905: Waste characterization Processed waste is mixed low-level waste, while unprocessed waste reported is non-mixed.											
11e2 Byproduct Material	Disposal	No	1230000	0	0	0	0	0	100	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Deactivation (of Sodium)			same	
Oxidation			same	
Thermal Desorption			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Macroencapsulation			increase	
Polymerization			same	
Stabilization			same	

Reporting Group Commercial, Site Structure: Closed LLW

Country: United States of America Reporting Year: 2006

Full Name: Closed commercial LLW disposal sites

Location: Beatty, Nevada; Sheffield, Illinois; Maxey Flats, Kentucky; West Valley, New York

License Holder(s) : Licenses terminated on closure

The following list the waste management facilities that are located at this site.

Facility: Beatty

Description	Closed commercial LLW facility in Beatty, Nevada Long-term institutional control by State of Nevada

Disposal part of the "Beatty" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	No	Class B LLW	Yes	No
Class C LLW	Yes	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	137500	Capacity -planned (m3)	137500
Depth (m)			
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
operation		1962	1992
closure		1992	1992
institutional control		1992	

Reporting Group Commercial, Site Structure: Closed LLW

Country: United States of America Reporting Year: 2006

Facility: MaxeyFlats

Description	Closed commercial LLW disposal site at Maxey Flats, Kentucky State of Kentucky

Disposal part of the "MaxeyFlats" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	No	Class B LLW	Yes	No
Class C LLW	Yes	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	135500	Capacity -planned (m3)	135500
Depth (m)			
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1963	1963
operation		1963	1977
closure		1977	1977
institutional control		1977	

Facility: Sheffield

Description	Closed commercial LLW disposal facility located in Sheffield, IL Long-term institutional control by Illinois Department of Nuclear Safety

Disposal part of the "Sheffield" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	No	Class B LLW	Yes	No
Class C LLW	Yes	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	88380	Capacity -planned (m3)	88380
Depth (m)			
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1968	1968
operation		1968	1978
closure		1978	1978
institutional control		1978	

Reporting Group Commercial, Site Structure: Closed LLW

Country: United States of America Reporting Year: 2006

Facility: WestValley

Description	Closed commercial LLW facility at West Valley Nuclear Services Site, New York, Under control of New York State Energy Research and Development Authority

Disposal part of the "WestValley" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	No	Class B LLW	Yes	No
Class C LLW	Yes	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	77070	Capacity -planned (m3)	77070
Depth (m)			
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1963	1963
operation		1986	1986
closure		1986	1986
institutional control		1986	

Reporting Group Commercial, Site Data: Closed LLW

Country: United States of America Reporting Year: 2006

Full Name: Closed commercial LLW disposal sites

Inventory Reporting Date: December 2006 Waste Matrix: USNRC

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Class A LLW	Disposal Beatty	Yes	132000	30	30	0	30	0	10	0	Yes
Class A LLW	Disposal MaxeyFlats	Yes	130000	30	30	0	30	0	10	0	Yes
Class A LLW	Disposal Sheffield	Yes	84800	30	30	0	30	0	10	0	Yes
Class A LLW	Disposal WestValley	Yes	74000	20	0	50	10	0	20	0	Yes
Comment #7359: Waste classes and generators Estimated splits between class A, B, and C are arbitrary and assumed based on Beatty data. Generator %s are estimated.											
Class B LLW	Disposal Beatty	Yes	4100	50	0	0	40	0	10	0	Yes
Class B LLW	Disposal MaxeyFlats	Yes	4100	50	0	0	40	0	10	0	Yes
Class B LLW	Disposal Sheffield	Yes	2700	50	0	0	40	0	10	0	Yes
Class B LLW	Disposal WestValley	Yes	2300	20	0	50	10	0	20	0	Yes
Comment #7360: Waste classes and generators Estimated splits between class A, B, and C are arbitrary and assumed based on Beatty data. Generator %s are estimated											
Class C LLW	Disposal Beatty	Yes	1400	50	0	0	40	0	10	0	Yes
Class C LLW	Disposal MaxeyFlats	Yes	1400	50	0	0	40	0	10	0	Yes
Class C LLW	Disposal Sheffield	Yes	880	50	0	0	40	0	10	0	Yes
Class C LLW	Disposal WestValley	Yes	770	20	0	50	10	0	20	0	Yes
Comment #7361: Waste classes and generators Estimated splits between class A, B, and C are arbitrary and assumed based on Beatty data. Generator %s are estimated											

Reporting Group Commercial, Site Structure: National

Country: United States of America Reporting Year: 2006

Full Name: Grouping of multiple licensees

Location: Throughout the USA

License Holder(s) : Various utilities and corporations licensed by USNRC or Agreement States

The following list the waste management facilities that are located at this site.

Facility: Processors

Description	Many many commercial firms in the USA provide treatment/conditioning services (see link in reading room to www.bpdirectory.com)

Processing part of the "Processors" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1960

Facility: GTCC - SRS

Description	GTCC sealed Source inventory

Storage part of the "GTCC - SRS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
SRS	Yes	Yes			
List SRS?	No				
Capacity	Various storage areas across the nation				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	0	No	No	No	Yes

Reporting Group Commercial, Site Structure: National

Country: United States of America Reporting Year: 2006

Facility: GTCC-NPP

Description	Estimate of greater than class C LLW awaiting disposal at commercial facilities

Storage part of the "GTCC-NPP" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	Yes	Yes
HLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Various storage pools and independent storage facilities at NPPs contain GTCC LLW				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
NPP	pool	0	No	No	No	No
NPP	cask	0	No	No	Yes	No

Comment #7268: GTCC

Information on GTCC LLW is limited at this time. An Environmental Impact Statements is in development including an estimate of waste volume. GTCC waste has been safely stored at nuclear power plants for many years awaiting the US goverment's decision on disposal.

Facility: GTCC-Other

Description	GTCC other than sealed sources and at nuclear power plants. Includes industrial users.

Storage part of the "GTCC-Other" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	Yes	Yes
HLW	No	No	11e2 Byproduct Material	No	No
SRS	Yes	No			
List SRS?	No				
Capacity	At various locations throughout the nation				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Various	building	0	No	No	No	Yes

Reporting Group Commercial, Site Data: National

Country: United States of America Reporting Year: 2006

Full Name: Grouping of multiple licensees

Inventory Reporting Date: December 2006 Waste Matrix: USNRC

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Greater than Class C LLW	Storage GTCC-NPP	No	58	100	0	0	0	0	0	0	No
Greater than Class C LLW	Storage GTCC-Other	No	34	0	0	0	100	0	0	0	No

Comment #7378: GTCC in storage at commercial facilities

The non-NPP number includes a very small volume sealed sources other GTCC waste. Inventory includes 4 m3 of MLLW and 30 m3 of LLW. Inventory estimate prepared by Sandia National Laboratories in July 2007.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Shredding			same	
Size Reduction			same	

Comment #7376: Represents all commercial firms across the USA

The Low-Level Waste Forum, Inc., maintains a national directory of brokers and processors. These private concerns provide treatment, conditioning, and transportation services to generators of LLW and 11(e)2 waste. The listing of these services is found at www.bpdirectory.com. There are many treatment services offered. Just a few of the more common ones are listed in NEWMDB.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			same	

Comment #7377: Represents commercial firms across the USA

The Low-Level Waste Forum, Inc., maintains a national directory of brokers and processors. These private concerns provide treatment, conditioning, and transportation services to generators of LLW and 11(e)2 waste. The listing of these services is found at www.bpdirectory.com.

Reporting Group Commercial, Site Structure: Richland

Country: United States of America | Reporting Year: 2006

Full Name: Richland, Washington, Radioactive Disposal Facility
U.S. Ecology (subsidiary of American Ecology Inc.)

Location: Richland, Washington

License Holder(s) : U.S. Ecology/American Ecology Corp. (licesnsed by State of Washington as a USNRC Agreement State)

The following list the waste management facilities that are located at this site.

Facility: LLWdisp

Description	Northwest Compact and Rocky Mountain Compact regions LLW Disposal Facility, operated by U.S. Ecology Disposal facility land leased from USDOE by State of Washington

Disposal part of the "LLWdisp" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	Yes	Yes	Class B LLW	Yes	Yes
Class C LLW	Yes	Yes	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	1700000	Capacity -planned (m3)	1700000
Depth (m)	12		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1965	1965
operation		1965	2055
closure	Yes	2056	2056
institutional control	Yes	2056	

Reporting Group Commercial, Site Data: Richland

Country: United States of America Reporting Year: 2006

Full Name: Richland, Washington, Radioactive Disposal Facility
U.S. Ecology (subsidiary of American Ecology Inc.)

Inventory Reporting Date: December 2006 Waste Matrix: USNRC

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Class A LLW	Disposal	Yes	384885	45	20	0	25	0	10	0	Yes
Comment #5675: Waste class and generator % 1986-2005 data on waste classification and generators (MIMS database) was extrapolated to historical data (1965-1985) found in the IDB report Rev 9. Splits between class and generator are therefore estimates based on best data available.											
Class B LLW	Disposal	Yes	3703	93	0	0	5	0	2	0	Yes
Comment #5676: Waste classes and generator % 1986-2005 data on waste classification and generators (MIMS database) was extrapolated to historical data (1965-1985) found in the IDB report Rev 9. Splits between class and generator are therefore estimates based on best data available.											
Class C LLW	Disposal	Yes	2761	76	0	0	21	0	3	0	Yes
Comment #5677: Waste classes and generator % 1986-2005 data on waste classification and generators (MIMS database) was extrapolated to historical data (1965-1985) found in the IDB report Rev 9. Splits between class and generator are therefore estimates based on best data available.											

Reporting Group Commercial, Site Structure: WCS

Country: United States of America Reporting Year: 2006

Full Name: Waste Control Specialists

Location: Andrews, TX

License Holder(s) : Waste Control Specialists (licensed by State of Texas Agreement State and USNRC)

Comment #12132: WCS disposal

Waste Control Specialists currently has license applications pending for Class A, B, and C LLW (mixed LLW) and 11e.(2) byproduct material. If facilities are licensed and constructed information will be reported in the future.

The following list the waste management facilities that are located at this site.

Facility: Treatment

Description	Treatment facility for hazardous and mixed low-level waste under RCRA Part B permt

Processing part of the "Treatment" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	No	No
HLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1997

Facility: Storage

Description	Waste storage facility for some transuranic/GTCC waste and planned 11e.(2)

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Class A LLW	No	No	Class B LLW	No	No
Class C LLW	No	No	Greater than Class C LLW	Yes	Yes
HLW	No	No	11e2 Byproduct Material	Yes	Yes
SRS	No	No			
List SRS?	No				
Capacity	About 3,000 cubic meters total capacity in facility				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1998	No	No	No	No
11e.(2)	concrete pad	2005	No	No	No	No

Reporting Group Commercial, Site Data: WCS

Country: United States of America Reporting Year: 2006

Full Name: Waste Control Specialists

Inventory Reporting Date: December 2006 Waste Matrix: USNRC

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Greater than Class C LLW	Storage	Yes	45.8	0	0	0	0	0	100	0	No

Comment #7413: GTCC at WCS

WCS is storing greater than class C LLW generated as a result of cleanup of Gulf Nuclear Inc. sites in Texas by the State of Texas and U.S. EPA pending a disposal path.

Class	Location	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
11e2 Byproduct Material	Storage	Yes	22243	0	0	0	0	100	0	0	No

Comment #12141: Waste Storage facilities/Class 11e2 Byproduct M/Si

3776 canisters filled with processed 11e(2) byproduct material formerly stored at the DOE Fernald site are in storage awaiting disposal. WCS has applied for a license to construct a disposal facility. A decision on the license is expected in late 2008.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation			same	
Compaction			same	
Decontamination			same	
Shredding			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			same	
Solidification			same	
Stabilization			same	

Reporting Group Government, Site Structure: Cheney

Country: United States of America Reporting Year: 2006

Full Name: Cheney Disposal Cell

Location: Near Grand Junction, Colorado

License Holder(s) : U.S. Department of Energy, Grand Junction Office

The following list the waste management facilities that are located at this site.

Facility: 11e2 cell

Description	Cheney or Grand Junction Disposal Site

Disposal part of the "11e2 cell" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	Yes	Yes
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	3600000	Capacity -planned (m3)	3600000
Depth (m)	2-20		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1991	1991
operation		1991	2023
closure		1994	2023

Reporting Group Government, Site Data: Cheney

Country: United States of America Reporting Year: 2006

Full Name: Cheney Disposal Cell

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
11e2 Byproduct Material	Disposal	No	3592700	0	0	0	0	0	100	0	No

Reporting Group Government, Site Structure: FEMP

Country: United States of America Reporting Year: 2006

Full Name:	Fernald Environmental Management Project, formerly Feed Materials Production Center
Location:	Cincinnati, Ohio
License Holder(s) :	U.S. Department of Energy, Ohio Field Office

The following list the waste management facilities that are located at this site.

Facility: OSDF

Description	Onsite Disposal Facility - Remediation Waste

Disposal part of the "OSDF" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	2300000	Capacity -planned (m3)	2300000
Depth (m)	0-15		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
construction		1997	2006
commissioning		1997	2006
operation		1997	2006
closure		2001	2006
institutional control	Yes	2006	

Reporting Group Government, Site Data: FEMP

Country: United States of America Reporting Year: 2006

Full Name: Fernald Environmental Management Project, formerly Feed Materials Production Center

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Disposal	No	2294000	0	0	0	0	0	100	0	No

Reporting Group Government, Site Structure: Hanford

Country: United States of America Reporting Year: 2006

Full Name: Hanford Site

Location: Richland, Washington

License Holder(s) : U.S. Department of Enery, Richland Operations Office

U.S. Department of Energy, Office of River Protection

The following list the waste management facilities that are located at this site.

Facility: LLWFac

Description	Storage, characterization, and treatment of LLW awaiting disposal

Processing part of the "LLWFac" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1985

Storage part of the "LLWFac" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	300,000 square feet (64,000 drum equivalents) plus. 25 trenches at 4 burial grounds for TRU; now being retrieved				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
MLLW	building	1987	No	No	Yes	No
LLW	building	1987	No	No	Yes	No

Facility: TRUFac

Description	TRU characterization and treatment facilities. 25 trenches at 4 burial grounds for TRU; now being retrieved

Processing part of the "TRUFac" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1997

Storage part of the "TRUFac" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Sufficient retrievable storage capacity for 15 years				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
trenches	trench (unlined)	1970	No	Yes	No	No
CWC	building	1985	No	No	No	No

Facility: CSB

Description	Cansiter Storage Building - contains 6 vaults with storage wells for HLW and SNF canisters

Storage part of the "CSB" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	Yes	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	1320 cansiters (HLW or SNF)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
CSBvaults	building	2000	No	No	No	No

Comment #7264: CSB

Currently in operation for spent fuel storage only.

Reporting Group Government, Site Structure: Hanford

Country: United States of America Reporting Year: 2006

Facility: TankFarms

Description	Hanford Tank Farms with HLW, LLW, and TRU waste

Storage part of the "TankFarms" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	No	TRU	Yes	No
LLW	Yes	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Over 210 million liters				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
DST	tank (stainless steel)	1971	No	No	No	No
SST	tank (other)	1944	No	No	No	No

Facility: WESF

Description	Waste encapsulation and storage facility Hot cells and storage pool used for storage of Cs and Sr capsules separated from HLW

Storage part of the "WESF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	Yes	No			
List SRS?	Yes				
Capacity	12 storage pools				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
WESF	pool	1974	No	No	No	Yes

Reporting Group Government, Site Structure: Hanford

Country: United States of America Reporting Year: 2006

Facility: ERDF

Description	Environmental Restoration Disposal Facility

Disposal part of the "ERDF" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	3250000	Capacity -planned (m3)	4300000
Depth (m)	0-70		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1992	1995
site selection		1994	1995
design		1994	1996
construction		1995	1996
commissioning		1996	1996
operation		1996	2035
closure	Yes	2035	2035
institutional control	Yes	2035	2096

Reporting Group Government, Site Structure: Hanford

Country: United States of America Reporting Year: 2006

Facility: LLWdisp

Description	Hanford 200 Area Burial Grounds, excluding Trenches 31 & 34 used for MLLW disposal and associated processing facilities

Disposal part of the "LLWdisp" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	2000000	Capacity -planned (m3)	2000000
Depth (m)	6-24		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
design		1945	1945
construction		1945	1945
commissioning		1945	1945
operation	Yes	1945	2035
closure	Yes	2035	2035
institutional control	Yes	2035	

Reporting Group Government, Site Structure: Hanford

Country: United States of America Reporting Year: 2006

Facility: MLLWdisp

Description	Mixed Waste Trenches 31 & 34 and associated processing facilities

Disposal part of the "MLLWdisp" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	21000	Capacity -planned (m3)	42000
Depth (m)	6-24		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1945	1945
site selection		1945	1945
design		1986	1986
construction		1986	1986
commissioning		1987	1987
operation		1987	2035
closure	Yes	2035	2035
institutional control	Yes	2035	

Reporting Group Government, Site Data: Hanford

Country: United States of America Reporting Year: 2006

Full Name: Hanford Site

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
HLW	Storage TankFarms	No	207198	0	0	0	0	100	0	0	No

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage	No	11258	0	0	0	0	100	0	0	No

Comment #5682: Required processing

Legacy wastes stored in drums, boxes, and tanks. May have been processed prior to storage, but will require some processing, e.g. repackaging, prior to shipment.

Class	Location	Proc.	Volume (m3)	RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	2310	0	0	0	0	100	0	0	No
LLW	Storage	Yes	550	0	0	0	0	100	0	0	No

Comment #7412: LLW storage numbers

The unprocessed inventory reported is mixed LLW; the processed inventory is non-mixed LLW.

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Disposal ERDF	No	3100500	0	0	0	0	0	100	0	No
LLW	Disposal LLWdisp	Yes	309262	0	0	0	0	80	20	0	Yes
LLW	Disposal MLLWdisp	Yes	106687	0	0	0	0	95	5	0	Yes

Comment #12142: Hanford disposal

Volumes reported include some reactor compartments disposed at Hanford. Historical waste sites not on the central plateau, e.g., 100 Areas, are being remediated and waste is being disposed at ERDF. Thus, waste volumes are reported at ERDF when disposed.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Evaporation			same	
Filtration			same	
Wastewater Treatment			same	

Spent Sources <=30 years in storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat.	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Sr-90			601	No	Yes	1	8.50E+08	1996.06
			8.50E+08					
Cs-137			1328	No	Yes	1	2.00E+09	1996.06
			2.00E+09					

Comment #7358: Source description

These sources contain separated cesium and strontium in large quantities and therefore category 1 was chosen to represent them.

Reporting Group Government, Site Structure: INL

Country: United States of America Reporting Year: 2006

Full Name: Idaho National Laboratory

Location: Idaho Falls, ID

License Holder(s) : U.S. Department of Energy, Idaho Operations Office

The following list the waste management facilities that are located at this site.

Facility: AMWTF

Description	Advanced Mixed Waste Treatment Project for retrieval characterization, packaging, sorting/size reduction of TRU and suspect TRU waste

Processing part of the "AMWTF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	2003

Storage part of the "AMWTF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Waste stored on asphalt pads (now being retreived and closed) and in buildings (approximately 66,000 m3)				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TRUpads	mound	1970	Yes	No	No	No
TRUbuild	building	1996	No	No	Yes	No

Facility: INTEC

Description	Idaho Nuclear Technology and Engineering Center; contains HLW processing and storage facilities, former reprocessing plant and other associated facilities

Processing part of the "INTEC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1958

Storage part of the "INTEC" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	3,420,000 gallons (15 tanks) plus bin sets containing 4,400 cubic meters of HLW calcine				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
HLWTnkFarm	tank (stainless steel)	1963	No	No	No	No
CalcineBin	tank (stainless steel)	1963	No	No	Yes	No
LLW/MLLW	building	1963	No	No	No	No

Reporting Group Government, Site Structure: INL

Country: United States of America Reporting Year: 2006

Facility: CERCLA

Description	Idaho CERCLA Disposal Facility and INEEL Remediation Unit

Disposal part of the "CERCLA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	200000	Capacity -planned (m3)	200000
Depth (m)	0-5		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1995	1998
site selection		1996	1998
design		1997	2002
construction		2002	2012
commissioning		2003	2003
operation		2003	2012
closure	Yes	2012	2012
institutional control	Yes	2012	2045

Comment #7266: Remediation waste disposal

Disposal of contaminated soil in the INL remediation waste facility (CERCLA) disposal began in October 2003.

Reporting Group Government, Site Structure: INL

Country: United States of America Reporting Year: 2006

Facility: RWMC-SDA

Description	Radioactive Waste Management Complex -Subsurface Disposal Area

Disposal part of the "RWMC-SDA" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	97000	Capacity -planned (m3)	97000
Depth (m)	1-8		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1949	1951
site selection		1949	1951
design		1949	1951
construction		1952	1952
commissioning		1952	1952
operation		1952	2020
closure	Yes	2020	2020
institutional control	Yes	2020	

Reporting Group Government, Site Data: INL

Country: United States of America | Reporting Year: 2006

Full Name: Idaho National Laboratory

Inventory Reporting Date: December 2006 | Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Form	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
HLW	Storage Liquid	No	3400	0	0	0	0	100	0	0	No
HLW	Storage Solid	No	4400	0	0	0	0	100	0	0	No

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage AMWTF	No	46800	0	0	0	0	100	0	0	No

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	1411	0	0	0	0	100	0	0	No
LLW	Storage	Yes	1880	0	0	0	0	100	0	0	No

Comment #12167: Waste Storage facilities/Class LLW/Site INL

Unprocessed waste is mixed LLW awaiting shipment to a treatment site prior to disposal.

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Disposal CERCLA	No	173764	0	0	0	0	0	100	0	No
LLW	Disposal RWMC-SDA	Yes	55000	0	0	0	0	0	100	0	No

Comment #7357: INL disposal inventory

Disposed volumes as of 9/30/2006. RWMC-SDA volumes from 1990 to present (55,000). Does not include historical volume (142,200) from Table 4.4 of 1993 IDB (rev 9), some of which is undergoing remedial action.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Calcination				Yes
Compaction			same	
Evaporation			same	
Size Reduction			decrease	
Super Compaction			increase	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			same	
Solidification			same	

Reporting Group Government, Site Structure: LANL

Country: United States of America Reporting Year: 2006

Full Name: Los Alamos National Laboratory

Location: Los Alamos, New Mexico

License Holder(s) : U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Site Office

The following list the waste management facilities that are located at this site.

Facility: CMR SRS

Description	The Chemical and Metallurgy Research Building provides sealed source consolidation services

Processing part of the "CMR SRS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	Yes	No			
List SRS?	Yes				

Type	conditioning
Year opened	1955, Estimate

Facility: TA-54 SRS

Description	Technical Area 54 provides storage for sources of the USDOE Offsite Recovery Program and limited disposal for sources meeting LLW disposal facility acceptance requirements

Processing part of the "TA-54 SRS" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	Yes	No			
List SRS?	Yes				

Type	conditioning
Year opened	1995, Estimate

Reporting Group Government, Site Structure: LANL

Country: United States of America | Reporting Year: 2006

Facility: TA-54 TRU

Description	TRU waste facilities

Processing part of the "TA-54 TRU" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1970

Storage part of the "TA-54 TRU" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	1970-1979 in trenches; 1979-1991 on asphalt pads covered with soil; 1991-present in fabric domes; some RHTRU in shafts				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Buildings	building	1985	No	No	No	No
Berms	mound	1979	Yes	No	No	No
UG	trench (unlined)	1970	Yes	No	No	No

Reporting Group Government, Site Structure: LANL

Country: United States of America Reporting Year: 2006

Facility: TA54 AreaG

Description	Area G disposal area, Technical Area 54; waste compactor is treatment

Processing part of the "TA54 AreaG" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1945

Disposal part of the "TA54 AreaG" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	1600000	Capacity -planned (m3)	1600000
Depth (m)	2-20		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1957	1957
operation		1957	2070
closure	Yes	2070	2070
institutional control	Yes	2070	

Reporting Group Government, Site Data: LANL

Country: United States of America Reporting Year: 2006

Full Name: Los Alamos National Laboratory

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage TA-54 TRU	No	6722	0	0	0	0	100	0	0	No

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	50	0	0	0	0	100	0	0	Yes

Comment #14614: Waste Storage facilities/Class LLW/Site LANL

Waste reported as unprocessed is MLLW.

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Disposal TA54 AreaG	Yes	239800	0	0	0	0	100	0	0	Yes

Comment #12152: Waste Disposal facilities/Class LLW/Site LANL

Disposed waste from 1957-9/30/2006.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			same	

Spent Sources >30 years in storage Waste data available, will not be reported.

Attachment #1364: USDOE sealed source (both used and disused) inventory as of July 2004

File name: Sealed Sources.doc

File type: MS Office Document

Member State's Reference # Sources

Reporting Group Government, Site Structure: LLNL

Country: United States of America Reporting Year: 2006

Full Name: Lawrence Livermore National Laboratory

Location: Pleasanton, CA

License Holder(s) : U.S. Department of Energy, National Nuclear Security Admnistration

The following list the waste management facilities that are located at this site.

Facility: Proc/Store

Description	Various laboratory waste management processing and storage facilities

Processing part of the "Proc/Store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1950

Storage part of the "Proc/Store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	sufficient for laboratory operations				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1950	No	No	No	No

Reporting Group Government, Site Data: LLNL

Country: United States of America Reporting Year: 2006

Full Name: Lawrence Livermore National Laboratory

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage	Yes	201	0	0	0	0	100	0	0	No
LLW	Storage	No	45	0	0	0	0	100	0	0	No
LLW	Storage	Yes	976	0	0	0	0	100	0	0	No

Comment #12153: Waste Storage facilities/Class LLW/Site LLNL

Unprocessed is mixed LLW and processed is LLW.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Evaporation			same	
Size Reduction			same	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			same	
Stabilization			same	

Reporting Group Government, Site Structure: Monticello

Country: United States of America Reporting Year: 2006

Full Name: Monticello Remedial Action Project - Disopsal Cell

Location: Monticello, Utah

License Holder(s) : U.S. Department of Energy, Idaho Operations Office, Grand Junction Office

The following list the waste management facilities that are located at this site.

Facility: 11e2 Cell

Description	Disposal cell - mill tailing design

Disposal part of the "11e2 Cell" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	Yes	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	2000000	Capacity -planned (m3)	2000000
Depth (m)	0-15		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
site selection			1994
design		1995	1995
construction		1995	1997
commissioning		1997	1997
operation		1997	2001
closure		2001	2001
institutional control		2002	

Reporting Group Government, Site Data: Monticello

Country: United States of America Reporting Year: 2006

Full Name: Monticello Remedial Action Project - Disopsal Cell

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
11e2 Byproduct Material	Disposal	No	1911387	0	0	0	0	0	100	0	No

Reporting Group Government, Site Structure: NFS

Country: United States of America Reporting Year: 2006

Full Name: Decommissioning at Nuclear Fuel Services

Location: Erwin, TN

License Holder(s) : U.S. Department of Energy

The following list the waste management facilities that are located at this site.

Facility: Storage

Description	Storage awaiting shipment to disposal

Storage part of the "Storage" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			

List SRS?	No
Capacity	Sufficent for project

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1960	No	No	No	No

Reporting Group Government, Site Data: NFS

Country: United States of America Reporting Year: 2006

Full Name: Decommissioning at Nuclear Fuel Services

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	Yes	2560	0	0	0	0	0	100	0	Yes

Reporting Group Government, Site Structure: NTS

Country: United States of America Reporting Year: 2006

Full Name: Nevada Test Site

Location: Mercury, Nevada (northwest of Las Vegas)

License Holder(s) : U.S. Department of Energy, National Nuclear Security Administration, Nevada Site Office

The following list the waste management facilities that are located at this site.

Facility: Area 5 TRU

Description	Storage of TRU awaiting disposal

Storage part of the "Area 5 TRU" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Pads covered with buildings store TRU waste shipped from other sites pending WIPP disposal.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TRU	building	1974	No	No	No	No

Facility: Area 5 GCD

Description	Greater confinement boreholes at Area 5

Disposal part of the "Area 5 GCD" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	No
LLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	borehole		
Facility is non modular			
Capacity - existing (m3)	1900	Capacity -planned (m3)	1900
Depth (m)	36		
Host medium	volcanic tuff		

Phase	Estimate	Start Year	End Year
construction		1983	1989
commissioning		1983	1989
operation		1983	1989
closure	Yes	1984	2015
institutional control	Yes	2015	

Reporting Group Government, Site Structure: NTS

Country: United States of America Reporting Year: 2006

Facility: Area 5 MW

Description	Area 5 Pit 3, Mixed Waste Disposal Unit

Disposal part of the "Area 5 MW" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	20000	Capacity -planned (m3)	20000
Depth (m)	2-30		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
design			2002
construction			2003
commissioning			2003
operation		1995	2015
closure	Yes	2015	2015
institutional control	Yes	2015	

Facility: Area3&5LLW

Description	Areas 3&5 Radioactive Waste Management Sites (Area 3-use of subsidence craters from testing for LLW disposal) (Area 5-trenches)

Disposal part of the "Area3&5LLW" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	3700000	Capacity -planned (m3)	3700000
Depth (m)	2-30		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
construction		1960	1960
commissioning		1960	1960
operation		1960	2015
closure	Yes	1965	2015
institutional control	Yes	2015	

Reporting Group Government, Site Data: NTS

Country: United States of America Reporting Year: 2006

Full Name: Nevada Test Site

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage	No	380	0	0	0	0	100	0	0	No
TRU	Disposal	No	200	0	0	0	0	100	0	0	No

Comment #5717: TRU disposal

TRU waste disposal in greater confinement boreholes at NTS under past practice.

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Disposal Area3&5LLW	No	562000	0	0	0	0	100	0	0	No
LLW	Disposal Area 5 MW	Yes	8686	0	0	0	0	100	0	0	No
LLW	Disposal Area3&5LLW	Yes	409500	0	0	0	0	100	0	0	No

Reporting Group Government, Site Structure: OakRidge

Country: United States of America Reporting Year: 2006

Full Name: Oak Ridge Reservation, including Oak Ridge National Laboratory and East Tennessee Technology Park

Location: Oak Ridge, Tennessee

License Holder(s) : U.S. Department of Energy, Oak Ridge Operations Office

The following list the waste management facilities that are located at this site.

Facility: TSCAI

Description	Facilities for neutralization, solidification, packaging, overpacking, evaporation, compaction, and incineration (Toxic Substance Controlled Air Incinerator).

Processing part of the "TSCAI" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1991

Reporting Group Government, Site Structure: OakRidge

Country: United States of America Reporting Year: 2006

Facility: ORRLLW/TRU

Description	Various Oak Ridge Reservation waste management facilities including ORNL, /Bethel Valley/Melton Valley treatment, storage, and processing facilities for LLW & TRU waste awaiting disposal

Processing part of the "ORRLLW/TRU" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1942

Storage part of the "ORRLLW/TRU" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Includes a variety of facilities including, bunkers, buildings, casks, tanks, etc.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TRUtrenchs	cask	1970	No	No	No	No
TRU	building	1980	No	No	No	No
MVST	tank (concrete)	0	Yes	No	No	No
LegacyLLW	concrete pad	0	No	No	No	No

Reporting Group Government, Site Structure: OakRidge

Country: United States of America Reporting Year: 2006

Facility: EMWMF

Description	Environmental Mangagement Waste Management Facility- CERCLA Remedial Action Facility

Disposal part of the "EMWMF" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is modular			
Capacity - existing (m3)	922000	Capacity -planned (m3)	1700000
Depth (m)	0-10		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
design		2001	2001
construction		2001	2002
commissioning		2002	2002
operation		2002	2015
closure	Yes	2015	2033
institutional control	Yes	2015	2070

Facility: Hydrofract

Description	Past-practice of injecting grout (hydrofracture) in shale underlying ORNL from 1959-1983

Disposal part of the "Hydrofract" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No

Type	deep well injection

Depth (m)	100-300	
Host medium	sedimentary rock (consolidated clay)	

Phase	Estimate	Start Year	End Year
commissioning		1959	1959
operation		1959	1984
closure		2000	2004
institutional control		2004	

Reporting Group Government, Site Structure: OakRidge

Country: United States of America Reporting Year: 2006

Facility: OldBurial

Description	Solid Waste Storage Areas (Old Burial Grounds)

Disposal part of the "OldBurial" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No

List SRS	No		
Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	441000	Capacity -planned (m3)	441000
Depth (m)	0-10		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
operation		1945	1986

Facility: ORNL/IWMF

Description	Interim Waste Management Facility at ORNL - No longer in operation

Disposal part of the "ORNL/IWMF" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No

List SRS	No		
Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	5400	Capacity -planned (m3)	5400
Depth (m)	abovegrnd		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1986	1990
site selection		1986	1990
design		1986	1990
construction		1991	1991
commissioning		1991	1991
operation		1991	2001
closure	Yes	2002	2006
institutional control	Yes	2006	

Reporting Group Government, Site Data: OakRidge

Country: United States of America Reporting Year: 2006

Full Name: Oak Ridge Reservation, including Oak Ridge National Laboratory and East Tennessee Technology Park

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage ORRLLW/TRU	No	2438	0	0	0	0	100	0	0	No
TRU	Storage ORRLLW/TRU	Yes	55	0	0	0	0	100	0	0	No
LLW	Storage ORRLLW/TRU	No	3316	0	0	0	0	100	0	0	No
LLW	Storage ORRLLW/TRU	Yes	3820	0	0	0	0	100	0	0	No
LLW	Disposal EMWMF	No	491381	0	0	0	0	0	100	0	No
LLW	Disposal Hydrofract	No	17300	0	0	0	10	90	0	0	Yes
LLW	Disposal OldBurial	Yes	441000	0	0	0	10	90	0	0	Yes
LLW	Disposal ORNL/IWMF	Yes	3637	0	0	0	0	100	0	0	Yes

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Evaporation			same	
Incineration			same	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			same	
Solidification			same	
Stabilization			same	

Reporting Group Government, Site Structure: OCRWM

Country: United States of America Reporting Year: 2006

Full Name: Yucca Montain Project

Location: Yucca Mountain, Northwest of Las Vegas, Nevada

License Holder(s) : US Department of Energy, Office of Civilian Radioactive Waste Management

The following list the waste management facilities that are located at this site.

Facility: Repository

Description	Geologic repository site investigation, currently at the Yucca Mountain site (capacity below is vol of HLW canisters planned to be disposed in the future)

Disposal part of the "Repository" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	Yes	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	geological (cavern)		
Facility is non modular			
Capacity - existing (m3)	0	Capacity -planned (m3)	12300
Depth (m)	300		
Host medium	volcanic tuff		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1982	2001
site selection		2002	2002
design	Yes	2002	2007
construction	Yes	2011	2016
commissioning	Yes	2016	2017
operation	Yes	2017	

Comment #12168: Disposal Facility Repository Schedule

Assumed schedule dates based on best-achievable repository construction schedule as of 7/19/2006. Based on license application submittal to NRC in June 2008 with construction authorization in September 2011.

Reporting Group Government, Site Structure: OtherDOE

Country: United States of America Reporting Year: 2006

Full Name: All other US Department of Energy sites with rad processing facilities and/or ongoing remedial action

Location: Across the nation

License Holder(s) : U.S. Department of Energy

The following list the waste management facilities that are located at this site.

Facility: Various

Description	Many DOE laboratory and cleanup sites have a variety of processing facilities with associated storage facilities for radioactive waste management

Processing part of the "Various" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1945

Storage part of the "Various" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Storage sufficient to support operations				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
LLWstore	building	1945	No	No	No	No
TRUstore	building	1970	No	No	No	No

Reporting Group Government, Site Data: OtherDOE

Country: United States of America | Reporting Year: 2006

Full Name: All other US Department of Energy sites with rad processing facilities and/or ongoing remedial action

Inventory Reporting Date: December 2006 | Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage	No	61	0	0	0	0	100	0	0	No
LLW	Storage	No	178	0	0	0	30	50	20	0	Yes
LLW	Storage	Yes	4080	0	0	0	30	50	20	0	Yes

Comment #14616: Waste Storage facilities/Class LLW/Site OtherDOE

Includes 18 facilities managed by DOE and NNSA. MLLW is reported as unprocessed. LLW is reported as processed.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Deactivation (of Sodium)			decrease	
Filtration			decrease	
Size Reduction			decrease	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			same	
Solidification			same	
Stabilization			decrease	

Reporting Group Government, Site Structure: Paducah

Country: United States of America Reporting Year: 2006

Full Name:	Paducah Gaseous Diffusion Plant
Location:	West Paducah, Kentucky
License Holder(s) :	U.S. Department of Energy, Paducah Site Office U.S. Enrichment Corporation

The following list the waste management facilities that are located at this site.

Facility: Proc/Store

Description	Legacy waste processing and storage awaiting disposal

Processing part of the "Proc/Store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1952

Storage part of the "Proc/Store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Processing and storage pending disposal of waste resulting from operation of a gaseous diffusion plant and remedial action				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1952	No	No	No	No

Reporting Group Government, Site Data: Paducah

Country: United States of America Reporting Year: 2006

Full Name: Paducah Gaseous Diffusion Plant

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Storage	No	11	0	100	0	0	0	0	0	No
LLW	Storage	No	2513	0	100	0	0	0	0	0	No
LLW	Storage	Yes	3032	0	100	0	0	0	0	0	No

Comment #9906: Waste characteristics

The unprocessed waste is mixed waste hazardous and radioactive. Processed waste is just radioactive

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	Yes			
Stabilization	Yes			

Reporting Group Government, Site Structure: Portsmouth

Country: United States of America Reporting Year: 2006

Full Name:	Portsmouth Gaseous Diffusion Plant
Location:	Piketon, Ohio
License Holder(s) :	U.S. Department of Energy, Portsmouth Site Office U.S. Enrichment Corporation

The following list the waste management facilities that are located at this site.

Facility: Proc/Store

Description	Legacy waste processing and storage awaiting disposal

Processing part of the "Proc/Store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	conditioning
Year opened	1954

Storage part of the "Proc/Store" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Processing and storage pending disposal of waste resulting from operation of a gaseous diffusion plant and remedial action				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Storage	building	1954	No	No	No	No

Reporting Group Government, Site Data: Portsmouth

Country: United States of America | Reporting Year: 2006

Full Name: Portsmouth Gaseous Diffusion Plant

Inventory Reporting Date: December 2006 | Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage	No	683	0	100	0	0	0	0	0	No
LLW	Storage	Yes	7633	0	100	0	0	0	0	0	No

Comment #9907: Waste characteristics

The unprocessed waste is mixed waste hazardous and radioactive. Processed waste is just radioactive

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			increase	

Reporting Group Government, Site Structure: SRS

Country: United States of America Reporting Year: 2006

Full Name:	Savannah River Site
Location:	Aiken, South Carolina
License Holder(s) :	U.S. Department of Energy, Savannah River Operations Office (South Carolina regulates mixed waste)

The following list the waste management facilities that are located at this site.

Facility: DWPF

Description	Defense Waste Processing Facility (vitrification); also facilities for evaporation and pretreatment for vitrification.

Processing part of the "DWPF" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	Yes	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1996

Facility: E-AreaFac

Description	Interim storage of LLW and TRU awaiting disposal; LLW treatment and conditioning facilities, including mixed waste processing

Processing part of the "E-AreaFac" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1974

Storage part of the "E-AreaFac" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	Modular buildings and pads are used for TRU waste (pads 1-13 covered with earth; pads 14-19 have weather enclosures) and mixed LLW storage pending disposal; the				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
MLLWstore	building	1986	No	No	Yes	No
TRUcov_pad	building	1992	No	No	Yes	No
TRUpads	concrete pad	1974	No	No	No	No

Reporting Group Government, Site Structure: SRS

Country: United States of America Reporting Year: 2006

Facility: HLW Tanks

Description	Fand H Area Tank Farms with HLW; including 3 evaporators processing tank supernate and the Effluent Treatment Facility

Processing part of the "HLW Tanks" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	Yes	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment
Year opened	1980

Storage part of the "HLW Tanks" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	49 carbon steel underground tanks totalling over 56 million gallons capacity: 12 Type I @750,000 gallons; 4 Type II @ 1 million gallons; 27 Type III at 1.3 million gallons; 8 Type IV @1.3 million gallons.				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
Type-I	tank (stainless steel)	1951	No	No	No	No
Type-II	tank (stainless steel)	1955	No	No	No	No
Type-III	tank (stainless steel)	1967	No	No	No	No
Type-IV	tank (stainless steel)	1953	Yes	No	No	No

Comment #7249: SRS HLW Tanks

2 tanks closed (Type IV) as of this date. Tank types I, II, and IV will be emptied and retired ASAP. Type III tanks have state-of-the-art designs and will close last

Facility: GlassStore

Description	Glass Waste Storage Buildings for interim storage of vitirified HLW awaiting shipment to repository

Storage part of the "GlassStore" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	Yes	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity	GWSB#1 capacity is 2,139 canisters GWSB#2 under construction will increase capacity by an additional 2,340 canisters				

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
GWSB#1	building	1996	No	No	Yes	No

Reporting Group Government, Site Structure: SRS

Country: United States of America Reporting Year: 2006

Facility: BurialGrd

Description	Includes the Old Radioactive Waste Burial Ground (1952-1972) and Low-Level Radioactive Waste Disposal Facility (1973-1995)

Disposal part of the "BurialGrd" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	677000	Capacity -planned (m3)	677000
Depth (m)	0-10		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
commissioning		1952	1952
operation		1952	1994
closure		1995	1995
institutional control		1995	

Facility: E-AreaDisp

Description	E-Area Disposal Trenches and Vaults

Disposal part of the "E-AreaDisp" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	trench(es)		
Facility is non modular			
Capacity - existing (m3)	245600	Capacity -planned (m3)	245600
Depth (m)	6		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
commissioning		1995	1995
operation	Yes	1995	2050
closure	Yes	2050	2050
institutional control	Yes	2050	

Reporting Group Government, Site Structure: SRS

Country: United States of America Reporting Year: 2006

Facility: Saltstone

Description	Stabilized (grouted) low-activity fraction disposal from HLW processing

Disposal part of the "Saltstone" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	Yes	Yes	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	773000	Capacity -planned (m3)	773000
Depth (m)	0		
Host medium	sedimentary (sand)		

Phase	Estimate	Start Year	End Year
commissioning		1990	1990
operation	Yes	1990	2025
closure	Yes	2025	2025
institutional control	Yes	2025	

Reporting Group Government, Site Data: SRS

Country: United States of America Reporting Year: 2006

Full Name: Savannah River Site

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
HLW	Storage HLW Tanks	No	140000	0	0	0	0	100	0	0	No
HLW	Storage GlassStore	Yes	1638	0	0	0	0	100	0	0	No
Comment #7312: Vitrified HLW Vitrified HLW is in 2,214 canisters, based on a nominal 0.74 m3 per canister.											
TRU	Storage E-AreaFac	No	7367	0	0	0	0	100	0	0	No
LLW	Storage E-AreaFac	No	334	0	0	0	0	100	0	0	No
LLW	Storage E-AreaFac	Yes	243	0	0	0	0	100	0	0	No
Comment #14615: Waste Storage facilities/Class LLW/Site SRS Unprocessed is MLLW, while processed is LLW.											
LLW	Disposal BurialGrd	No	677000	0	0	0	0	100	0	0	Yes
LLW	Disposal E-AreaDisp	Yes	266772	0	0	0	0	80	20	0	Yes
LLW	Disposal Saltstone	Yes	26647	0	0	0	0	100	0	0	No
Comment #7370: Savannah River Site The volume reported for E-Area is inclusive of all the waste disposed in the LAW vaults, ILW vaults, and trenches (reported since 1988). No breakdown was available. Old Burial Grounds number is historically disposed waste pre-1992 as reported in IDB Rev 9.											

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction			same	
Decontamination			same	
Evaporation			same	
Incineration				Yes
Size Reduction	Yes			
Sludge washing			same	
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Stabilization			same	
Vitrification			same	

Reporting Group Government, Site Structure: WIPP

Country: United States of America Reporting Year: 2006

Full Name: Waste Isolation Pilot Plant

Location: Southeast New Mexico

License Holder(s) : US Department of Energy, Carlsbad Field Office (license = certification by USEPA; State of New Mexico issues hazardous waste permit)

The following list the waste management facilities that are located at this site.

Facility: WIPP

Description	Waste Isolation Pilot Plant, geologic disposal facility for defense TRU Waste

Disposal part of the "WIPP" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	No	No	11e2 Byproduct Material	No	No
Disused/spent, sealed radioactive sources (SRS).				Yes	Yes
List SRS	No				

Type	rock cavern		
Facility is non modular			
Capacity - existing (m3)	175600	Capacity -planned (m3)	175600
Depth (m)	655		
Host medium	sedimentary rock (bedded salt)		

Phase	Estimate	Start Year	End Year
planning and/or concept assessment		1955	1974
site selection		1974	1974
design		1980	1982
construction		1982	1988
commissioning		1989	1998
operation		1999	2034
closure	Yes	2035	2039
institutional control	Yes	2040	2140

Reporting Group Government, Site Data: WIPP

Country: United States of America Reporting Year: 2006

Full Name: Waste Isolation Pilot Plant

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
TRU	Disposal	Yes	44687	0	0	0	0	100	0	0	No

Reporting Group Government, Site Structure: WSSRAP

Country: United States of America Reporting Year: 2006

Full Name: Weldon Spring Site Remedial Action Project

Location: St. Charles, Missouri

License Holder(s) : U.S. Department of Energy, Oak Ridge Operations Office (license=CERCLA ROD approved by USEPA)

The following list the waste management facilities that are located at this site.

Facility: 11e2 cell

Description	Disposal cell - mill tailing design; built for waste from remedial action of the Weldon Spring Site

Disposal part of the "11e2 cell" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	Yes	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	1120000	Capacity -planned (m3)	1120000
Depth (m)	0		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
design		1995	1997
construction		1997	1998
commissioning		1998	1998
operation		1998	2001
closure		1998	2002
institutional control		2003	

Reporting Group Government, Site Data: WSSRAP

Country: United States of America Reporting Year: 2006

Full Name: Weldon Spring Site Remedial Action Project

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
11e2 Byproduct Material	Disposal	No	930000	0	0	0	0	0	100	0	No
11e2 Byproduct Material	Disposal	Yes	190000	0	0	0	0	0	100	0	No

Reporting Group Government, Site Structure: WVDP

Country: United States of America | Reporting Year: 2006

Full Name: West Valley Demonstration Project, formerly West Valley Nuclear Services

Location: West Valley, New York

License Holder(s) : State of New York

U.S. Department of Energy, West Valley Project Office (USNRC License)

The following list the waste management facilities that are located at this site.

Facility: TRU&LLW

Description	Processing = remote handling facility Storage = LLW and TRU Storage areas

Processing part of the "TRU&LLW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				

Type	treatment, conditioning
Year opened	1966

Storage part of the "TRU&LLW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	Yes	Yes
LLW	Yes	Yes	11e2 Byproduct Material	No	No
SRS	No	No			
List SRS?	No				
Capacity					

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
TRUstore	building	1982	No	No	No	No
LLWstore	building	1982	No	No	No	No

Reporting Group Government, Site Structure: WVDP

Country: United States of America Reporting Year: 2006

Facility: HLW

Description	Vitrified HLW storage

Storage part of the "HLW" facility

The following shows storage status for waste classes, and SRS.

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	Yes	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	No	No
SRS	No	No			

List SRS?	No
Capacity	2 HLW storage tanks, are now empty but have some residual contamination; vitrified HLW canisters are stored in a former process cell awaiting shipment to a repository

Types of Storage Units

Unit Name	Type	Year Opened	Closed?	Full?	Modular ?	Contains SRS?
HLWtanks	tank (stainless steel)	1966	Yes	No	No	No
glass	building	1966	No	No	No	No

Reporting Group Government, Site Data: WVDP

Country: United States of America Reporting Year: 2006

Full Name: West Valley Demonstration Project, formerly West Valley Nuclear Services

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
HLW	Storage	Yes	229	0	0	100	0	0	0	0	No
TRU	Storage	No	669	0	0	0	0	0	100	0	No

Comment #7310: Waste source

The TRU waste in storage resulted from D&D of a commercial reprocessing plant (reported as D&D, not reprocessing in this cycle)

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
LLW	Storage TRU&LLW	No	122	0	0	0	0	0	100	0	No
LLW	Storage TRU&LLW	Yes	13315	0	0	0	0	0	100	0	No

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Wastewater Treatment			same	

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Containerization			increase	
Vitrification				Yes

Reporting Group OtherGovt, Site Structure: NFSS

Country: United States of America Reporting Year: 2006

Full Name: Niagara Falls Storage Site

Location: Lewiston, NY

License Holder(s) : U.S. Army Corps of Engineers

The following list the waste management facilities that are located at this site.

Facility: 11e2

Description	Disposal site for 11e2 material

Disposal part of the "11e2" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
HLW	No	No	TRU	No	No
LLW	No	No	11e2 Byproduct Material	Yes	No
Disused/spent, sealed radioactive sources (SRS).				No	No
List SRS	No				

Type	engineered surface		
Facility is non modular			
Capacity - existing (m3)	195000	Capacity -planned (m3)	195000
Depth (m)	0		
Host medium	sedimentary (other)		

Phase	Estimate	Start Year	End Year
construction		1982	1982
commissioning		1982	1982
operation		1982	1986
closure		1986	

Reporting Group OtherGovt, Site Data: NFSS

Country: United States of America Reporting Year: 2006

Full Name: Niagara Falls Storage Site

Inventory Reporting Date: December 2006 Waste Matrix: USDOE

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
11e2 Byproduct Material	Disposal	No	195000	0	0	0	0	0	100	0	No

Reporting Group PastPract, Site Structure: Atlantic

Country: United States of America Reporting Year: 2006

Full Name:	Altantic Ocean disposal
Location:	11 sites located in the Atlantic Ocean where disposal occurred between 1949 and 1967; both in US territorial and international waters (foreign flag set).
License Holder(s) :	none - past practice

The following list the waste management facilities that are located at this site.

Facility: SeaDispose

Description	Waste was dumped at sea at 11 sites in the Atlantic Ocean (Northern Hemisphere), including the Gulf of New Mexico. A total of 34,282 containers and 2.94E+06 GBq. (See TECDOC-1105 in the IAEA reading room)

Disposal part of the "SeaDispose" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Ocean-disposed	Yes	No			
Disused/spent, sealed radioactive sources (SRS).				No	No

Type	sea dumping (deep sea disposal)

Depth (m)	11-5289	
Host medium	unknown (site not selected)	

Phase	Estimate	Start Year	End Year
operation		1949	1967

Reporting Group PastPract, Site Data: Atlantic

Country: United States of America Reporting Year: 2006

Full Name: Altantic Ocean disposal

Inventory Reporting Date: December 2006 Waste Matrix: Past

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Ocean-disposed	Disposal	Yes	8600	0	0	0	0	0	0	100	Yes

Comment #7277: Atlantic Ocean Disposal Volumes

Between 1949 and 1967 over 34,000 containers were reported disposed. Most waste was put into a cement matrix in steel drums (210 liter or 300 liter). Waste volume information is not cited in the available references, so an assumption of 0.25 cubic meters/drum or 8,600 m3. This volume has significant uncertainty.

Reporting Group PastPract, Site Structure: Pacific

Country: United States of America Reporting Year: 2006

Full Name: Pacific Ocean disposal

Location: 18 sites located in the Atlantic Ocean where disposal occurred between 1946 and 1970; both in US territorial and international waters (foreign flag set). See TECDOC-1105 in the IAEA reading room.

License Holder(s) : none - past practice

The following list the waste management facilities that are located at this site.

Facility: SeaDispose

Description	Waste was dumped at 18 sites in the Pacific Ocean (Northern Hemisphere). A total of 56,261 containers and 5.54E+05 GBq were disposed. (See IAEA TECDOC 1105 link in reading room)

Disposal part of the "SeaDispose" facility

The following shows disposal status for waste classes, and SRS

Waste Class	Actual	Planned	Waste Class	Actual	Planned
Ocean-disposed	Yes	No			
Disused/spent, sealed radioactive sources (SRS).				No	No

Type	sea dumping (sea bed disposal)

Depth (m)	896-5487	
Host medium	unknown (site not selected)	

Phase	Estimate	Start Year	End Year
operation		1946	1962

Reporting Group PastPract, Site Data: Pacific

Country: United States of America Reporting Year: 2006

Full Name: Pacific Ocean disposal

Inventory Reporting Date: December 2006 Waste Matrix: Past

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined

Class	Location Facility	Proc.	Volume (m3)	Distribution in %							
				RO	FF FE	RP	NA	DF	DC RE	ND	Est
Ocean-disposed	Disposal SeaDispose	Yes	14000	0	0	0	0	0	0	100	Yes

Comment #7278: Pacific Ocean Disposed Volumes

Between 1946 and 1970 over 56,000 containers were reported disposed. Most waste was put into a cement matrix in steel drums (210 liter or 300 liter). Waste volume information is not cited in the available references, so an assumption of 0.25 cubic meters/drum or 14,000 m3. This volume has significant uncertainty.

REGULATORS

Country: United States of America Reporting Year: 2006

Name	NRC
Full Name	US Nuclear Regulatory Commission
Division	Office of Federal and State Materials and Environmental Management Programs, Office of Nuclear Materials and Safeguards (Headquarters) and regional offices
City or Town	Washington, DC and regional offices throughout the USA

Comment #5615: Wastes that are regulated by the Regulator

Matrix USNRC - LLW Class A, Class B and Greater than Class C LLW and HLW. In special cases mandated by law, NRC regulates USDOE facilities, such as the HLW repository.

Name	EPA
Full Name	U.S. Environmental Protection Agency
Division	Headquarters: Office of Radiation and Indoor Air, Office of Solid Waste, and regional offices
City or Town	Washington DC and regional offices throughout the USA

Comment #5613: Wastes that are regulated by the Regulator

The EPA regulates the hazardous portion of mixed waste. It is possible that mixed waste can be found in any of these classes: Matrix USDOE - HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C, and HLW. Most mixed waste is in the USDOE LLW and TRU waste classes. By law, the EPA is a regulator of the Waste Isolation Pilot Plant (WIPP) under long-term disposal standards. EPA mixed waste authority under the Resource Conservation and Recovery Act may also be delegated to States in some instances.

Name	States
Full Name	50 State government agencies throughout the USA
Division	Various State Radiation Protection Agencies for NRC Agreement State authority Various State Environmental Departments for hazardous waste (RCRA) Authority and permitting under environmental statutes
City or Town	Various Locations

Comment #5614: Wastes that are regulated by the Regulator

Certain states are considered Agreement States by USNRC and have regulatory authority over certain waste management facilities These would fall into Matrix USNRC - Class A LLW, Class B LLW, Class C LLW. States also have authority for hazardous waste regulation as delegated by the USEPA. In these instances, mixed wastes that primarily fall into Matrix USDOE - LLW and TRU waste.

Name	DOE
Full Name	United States Department of Energy
Division	Office of Health, Safety, and Security, and field locations
City or Town	Washington, DC

Comment #5616: Wastes that are regulated by the Regulator

The USDOE internally regulates its facilities under AEA authority. Wastes are in Matrix USDOE - 11e2, HLW, LLW, TRU. Some waste management facilities by law fall under outside regulators, e.g. EPA or NRC.

REGULATORS

Country: United States of America Reporting Year: 2006

Name	DOT
Full Name	U.S. Department of Transportation
Division	Headquarters - regulate transportation of radioactive waste
City or Town	Washington, DC

Comment #5612: Wastes that are regulated by the Regulator

Transportation of waste from classes: Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW is regulated.

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	DOEO435.1	
Title or Name	Radioactive Waste Management US Department of Energy Order (Manual and Implementation Guide)	
Reference Number	DOE O 435.1 (DOE M 435.1-1 DOE G 435.1-1)	
Date Promulgated or Proclaimed	1999-07-09	Regulation

Comment #5617: Wastes that are regulated by the Regulation

Matrix USDOE - HLW, LLW, TRU

Name	NWPA	
Title or Name	Nuclear Waste Policy Act of 1982, as amended in 1987, Public Law 97-425 Implementing Regulations: Title 10, Code of Federal Regulations, Parts 53, 60, and 960-962 also Title 40, Code of Federal Regulations, Part 191	
Reference Number	Title 42, U.S. Code, Sect. 10101 et seq.	
Date Promulgated or Proclaimed	1983-01-07	Law

Comment #5618: Wastes that are regulated by the Law

Matrix USDOE - HLW; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	AEA	
Title or Name	Atomic Energy Act of 1954 as amended Implementing Regulations: Title 10, Code of Federal Regulations, Parts 20, 39, 60-61, 71, 100, 762, 960. and 962 also Title 40, Code of Federal Regulations, Parts 190-194	
Reference Number	Title 42, U.S. Code, Sections 2011-2259	
Date Promulgated or Proclaimed	1954-01-01	Law

Comment #5619: Wastes that are regulated by the Law

Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	UMTRCA	
Title or Name	Uranium Mill Tailings Radiation Control Act of 1978, Public Law 95-604 Implementing Regulation: Title 40, Code of Federal Regulations, Part 192	
Reference Number	Title 42, U.S. Code, Sect. 7901-7942	
Date Promulgated or Proclaimed	1978-11-08	Law

Comment #5620: Wastes that are regulated by the Law

Matrix USDOE - 11e2

Name	CERCLA	
Title or Name	Comprehensive Environmental Response, Compensation, and Liability Act as amended by the Superfund Amendments and Reauthorization Act of 1984 Implementing Regulations: Title 40, Code of Federal Regulations, Parts 300-372	
Reference Number	Title 42, U.S. Code, Sect. 9601-9675	
Date Promulgated or Proclaimed	1980-01-01	Law

Comment #5621: Wastes that are regulated by the Law

CERCLA wastes are derived from remediation projects. They may include waste in any of these waste classes: Matrix USDOE - 11e2, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW. HLW is excluded because it is unlikely that any would be generated from CERCLA cleanup projects.

Name	RCRA	
Title or Name	Resource Conservation and Recovery Act. Public Law 94-580 as amended by the Hazardous and Solid Waste Amendment of 1984 (public law 98-616) Implementing Regulations: Title 40 Code of Federal Regulations, Parts 240-257, 260-280	
Reference Number	Title 42, U.S. Code, Sect. 6901-6991i	
Date Promulgated or Proclaimed	1976-01-01	Law

Comment #5622: Wastes that are regulated by the Law

Radioactive wastes that contain hazardous consituents as defined under the RCRA regulations. These may fall into any of the classes: Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	FFCA	
Title or Name	Federal Facilities Compliance Act	
Reference Number	Public Law 102-386	
Date Promulgated or Proclaimed	1992-10-01	Law

Comment #5623: Wastes that are regulated by the Law

If wastes are mixed hazardous waste and radioactive waste from federal facilities. Waste classes may be USDOE - HLW, LLW, TRU

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	TSCA	
Title or Name	Toxic Substances Control Act, Public Law 94-469 including Asbestos Hazard Emergency Act, Public Law 99-519 Implementing Regulations: Title 40, Code of Federal Regulations, 1500-1508	
Reference Number	Title 15, U.S. Code, Sections 2601-2654	
Date Promulgated or Proclaimed	1976-10-11	Law

Comment #5624: Wastes that are regulated by the Law

Any of the following radioactive classes if they include hazardous waste consitutents regulated under this law: Matrix USDOE - HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	NEPA	
Title or Name	National Environmental Policy Act, Public Law 91-190	
Reference Number	Title 42, U.S. Code, Section 4321-4370a	
Date Promulgated or Proclaimed	1970-01-01	Law

Comment #123: DOE Implementing Order

DOE Order 451.1B dated 10/26/2000

Comment #5625: Waste Facilities Must Comply With the Law

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	LLRWPA	
Title or Name	Low-level Radioactive Waste Policy Act, Public Law 96-573, as amended includes Amendments Act of 1985 and Amendments Act of 1995 includes consent of Congress for LLW compacts	
Reference Number	Title 42, US Code, Section 2021	
Date Promulgated or Proclaimed	1980-12-22	Law

Comment #5626: Wastes that are regulated by the Law

Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	10CFR61	
Title or Name	Licensing requirements for land disposal of radioactive waste	
Reference Number	Title 10, Code of Federal Reglations, Part 61	
Date Promulgated or Proclaimed	1960-01-01	Regulation

Comment #122: Agreement State Regulations

Each agreement state has enabling regulations that must be equivalent or more restrictive than those promulgated by USNRC.

Comment #5627: Wastes that are regulated by the Regulation

Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW

Name	40CFR191	
Title or Name	Disposal Standards for Long-Lived Waste	
Reference Number	Title 40, Code of Federal Reglations, Part 191	
Date Promulgated or Proclaimed	1992-01-01	Regulation

Comment #5628: Wastes that are regulated by the Regulation

Matrix USDOE - HLW, TRU

Name	WIPP-LWA	
Title or Name	Waste Isolation Pilot Plant Land Withdrawal Act	
Reference Number	Public Law 102-549	
Date Promulgated or Proclaimed	1992-10-01	Law

Comment #5629: Wastes that are regulated by the Law

Matrix USDOE - TRU

Name	10CFR830	
Title or Name	Nuclear Safety Management	
Reference Number	Title 10, Code of Federal Regulations, Part 830	
Date Promulgated or Proclaimed	2001-01-01	Regulation

Comment #124: Additional DOE Orders related to Nuclear Safety

DOE Order 5480.21, Unreviewed Safety Questions 12/24/1991
DOE Order 5480.22, Change 2, Technical Safety Requirements, 1/23/1996
DOE Order 5480.23, Change 1, Nuclear Safety Analysis Reports, 3/10/1994

Comment #5630: Waste Facilities Must Comply With the Regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOEO5400.5	
Title or Name	Radiation Protection of the Public and the Environment	
Reference Number	DOE Order 5400.5, Chg. 2	
Date Promulgated or Proclaimed	1993-01-07	Regulation

Comment #5631: Waste Facilities Must Comply With the Regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOE5480.19	
Title or Name	Conduct of Operations Requirements for Nuclear Facilities	
Reference Number	DOE Order 5480.19, Change 2	
Date Promulgated or Proclaimed	2001-10-23	Regulation

Comment #5632: Wastes Facilities Must Comply With This Regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOE5480.20	
Title or Name	Personnel Selection, Qualification, and Training Requirements	
Reference Number	DOE Order 5480.20A	
Date Promulgated or Proclaimed	2001-07-12	Regulation

Comment #5634: Waste facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOEO151.1C	
Title or Name	Comprehensive Emergency Management System	
Reference Number	DOE Order 151.1C	
Date Promulgated or Proclaimed	2005-11-02	Regulation

Comment #5635: Waste facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOEO231.1A	
Title or Name	Environment, Safety, and Health Reporting	
Reference Number	DOE Order 231.1, Change 1	
Date Promulgated or Proclaimed	2004-09-09	Regulation

Comment #5636: Wastes facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOEO430.1B	
Title or Name	Life Cycle Asset Management	
Reference Number	DOE Order 430.1A	
Date Promulgated or Proclaimed	2003-09-24	Regulation

Comment #5638: Wastes facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	DOE433.1	
Title or Name	Maintenance Management Program	
Reference Number	DOE Order 433.1	
Date Promulgated or Proclaimed	2001-06-01	Regulation

Comment #5639: Waste facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	HMTA	
Title or Name	Hazardous Materials Transportation Act, Public Law 101-416 Hazardous Materials Transportation Uniform Safety Act of 1990, Public Law 101-615 Implementing Regulations: Title 49, Code of Federal Regulations, Parts 100-199	
Reference Number	Title 49, U.S. Code, Sect. 1801-1812, 5101-5103	
Date Promulgated or Proclaimed	1990-11-16	Law

Comment #5640: Application of the Law

Covers hazardous material transport, which includes these wastes:

Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	DOEO460.1B	
Title or Name	Packaging and Transportation Safety	
Reference Number	DOE Order 460.1A	
Date Promulgated or Proclaimed	2004-04-26	Regulation

Comment #5641: Wastes that are regulated

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	10CFR835	
Title or Name	Occupational Radiation Protection	
Reference Number	Title 10, Code of Federal Regulations, Part 835	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #125: Other DOE order on Rad Protection

DOE Order 5480.4, Change 4, 1/7/1993 was in effect when 10CFR835 was promulgated

Comment #5642: Wastes that are regulated

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOE470.2B	
Title or Name	Security and Emergency Management Independent Oversight and Performance Assurance Program	
Reference Number	DOE Order 470.2B	
Date Promulgated or Proclaimed	2000-03-01	Regulation

Comment #5643: Wastes facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOEO414.1C	
Title or Name	Quality Assurance (guidance also)	
Reference Number	DOE Order 414.1C	
Date Promulgated or Proclaimed	2005-06-17	Regulation

Comment #5644: Wastes facilities must compy with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOEO360.1B	
Title or Name	Federal Employee Training	
Reference Number	DOE Order 360.1B	
Date Promulgated or Proclaimed	2001-10-11	Regulation

Comment #5647: Waste facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOEO425.1C	
Title or Name	Startup and Restart of Nuclear Facilities	
Reference Number	DOE Order 425.1C	
Date Promulgated or Proclaimed	2003-03-13	Regulation

Comment #5648: Waste facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	DOE440.1A	
Title or Name	Worker Protection Management for DOE Federal and Contractor Employees	
Reference Number	DOE Order 440.1A, Change 3	
Date Promulgated or Proclaimed	1998-03-27	Regulation

Comment #5649: Wastes faciliteis must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	DOEO420.1B	
Title or Name	Facility Safety	
Reference Number	DOE Order 420.1B	
Date Promulgated or Proclaimed	2005-12-22	Regulation

Comment #5650: Waste facilities must comply with this regulation

Matrix USDOE - 11e2, HLW, LLW, TRU

Name	10CFR960	
Title or Name	General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories	
Reference Number	Title 10, Code of Federal Regulations, Part 960	
Date Promulgated or Proclaimed	1999-01-01	Regulation

Comment #5651: Wastes that are regulated

Matrix USDOE - HLW and USNRC -HLW

Name	10CFR961	
Title or Name	Standard contract for disposal of spent nuclear fuel and high level waste	
Reference Number	Title 10, Code of Federal Regulations, Part 961	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #5652: Wastes that are regulated

Matrix USDOE - HLW; Matrix USNRC - HLW

Name	10CFR962	
Title or Name	Byproduct Material	
Reference Number	Title 10, Code of Federal Regulations, Part 962	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #5653: Wastes that are regulated

Matrix USDOE - 11e2

Name	10CFR51	
Title or Name	Environmental protection regulation for domestic licensing and related regulatory functions	
Reference Number	Title 10, Code of Federal Regulations, Part 51	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #5654: Wastes that are regulated

Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	10CFR60	
Title or Name	Disposal of high-level radioactive wastes in geologic repositories	
Reference Number	Title 10, Code of Federal Regulations, Part 60	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #5655: Wastes that are regulated

Matrix USDOE - HLW; Matrix USNRC - HLW

Name	10CFR62	
Title or Name	Criteria and procedures for emergency accesss to non-federal and regional low-level waste disposal facilities	
Reference Number	Title 10, Code of Federal Regulations, Part 62	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #5656: Wastes that are regulated

Matrix USNRC - Class A LLW, Class B LLW, and Class C LLW

Name	10CFR71	
Title or Name	Packaging and transportation of radioactive waste	
Reference Number	Title 10, Code of Federal Regulations, Part 71	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #5657: Wastes that are regulated

Applies to transportation of waste

Matrix USDOE - HLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	10CFR72	
Title or Name	Licensing requirements for the independent storage of spent nuclear fuel and high level radioactive waste	
Reference Number	Title 10, Code of Federal Regulations, Part 72	
Date Promulgated or Proclaimed	1990-01-01	Regulation

Comment #5658: Wastes that are regulated

Matrix USNRC - HLW

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	CAA	
Title or Name	Clean Air Act (Implementing Regulations: Title 40, Code of Federal Regulations, Parts 50-87)	
Reference Number	Title 33, U.S. Code, Sect. 7401-7642	
Date Promulgated or Proclaimed	1970-01-01	Law

Comment #5659: Waste Facilities Must Comply With the Law

Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	CWA	
Title or Name	Clean Water Act Implementing Regulations, Title 40, Code of Federal Regulations, Parts 100-136, 230-233, 400-471) Implementing Regulations, Title 33, Code of Federal Regulations, Parts 320, 323, 325, 328 and 330	
Reference Number	Title 33, U.S. Code, Sect. 1251-1387	
Date Promulgated or Proclaimed	1972-01-01	Law

Comment #5660: Waste Facilities Must Comply With the Law

Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	SDWA	
Title or Name	Safe Drinking Water Act Implementing Regulations: Title 40, Code of Federal Regulations, Parts 141-149	
Reference Number	Title 42, U.S. Code, Sect. 300f-300j-11	
Date Promulgated or Proclaimed	1974-01-01	Law

Comment #5661: Waste Facilities Must Comply With the Law

Matrix USDOE - 11e2, HLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	OSHA	
Title or Name	Occupational Safety and Health Act Implementing Regulations: Title 29, Code of Federal Regulations, Parts 1990-19990	
Reference Number	Title 29, U.S. Code, Sect. 651 et seq.	
Date Promulgated or Proclaimed	1970-01-01	Law

Comment #5662: Waste Facilities Must Comply With the Law

Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	EnergyReor	
Title or Name	Energy Reorganization Act of 1974, Public Law 93-438	
Reference Number	Title 42, US Code, Sections 5801-5891	
Date Promulgated or Proclaimed	1974-10-11	Law

Comment #5663: Waste facilities must comply with the law

Matrix USDOE - 11e2, HLW, LLW, TRU; Matrix USNRC - Class A LLW, Class B LLW, Class C LLW, Greater than Class C LLW, HLW

Name	WVDPA	
Title or Name	West Valley Demonstration Project Act, Public Law 96-368	
Reference Number	Title 42, US Code, Section 2021a	
Date Promulgated or Proclaimed	1980-10-01	Law

Comment #5664: Wastes that are regulated by the Law

The West Valley facility must comply with the law

Matrix USDOE - HLW, LLW, TRU

Name	FFCAct	
Title or Name	Federal Facilities Compliance Act of 1992, Public Law 102-386	
Reference Number	Title 42, US Code, Section 6961	
Date Promulgated or Proclaimed	1992-01-01	Law

Comment #5665: Federal wastes facilities must comply with the Law

Applies to federal government facilities with mixed hazardous and radioactive waste. Waste may fall into these radioactive classes:
Matrix USDOE - HLW, LLW, TRU

Name	EnPolAct	
Title or Name	Energy Policy Act of 1992	
Reference Number	Title 42, United States Code, Part 2296	
Date Promulgated or Proclaimed	1992-01-01	Law

Comment #5666: Wastes that fall under this Law

Matrix USDOE - HLW; Matrix USNRC - HLW

Name	10CFR963
Title or Name	Amended Yucca Mountain Site Suitabiilty Guidelines
Reference Number	Title 10, Code of Federal Regulations, Subpart 963
Date Promulgated or Proclaimed	2001-11-14	Regulation

Comment #5667: Application of the regulation

Yucca Mountain site is subject to this regulation.

Matrix USDOE - HLW; Matrix USNRC - HLW

Name	40CFR197
Title or Name	Public Health and Environmental Radiation Protection Standards for Yucca Mountain, Nevada
Reference Number	Title 40, Code of Federal Regulations, Part 197
Date Promulgated or Proclaimed	1998-01-01	Regulation

Comment #5668: Application of this regulation

Yucca Mountain site

Matrix USDOE - HLW; Matrix USNRC - HLW

Name	10CFR63
Title or Name	Disposal of high-level radioactive waste in a geologic repository at Yucca Mountain. Nevada (licensing regulations)
Reference Number	Title 10, Code of Federal Regulations, Part 63
Date Promulgated or Proclaimed	2000-01-01	Regulation

Comment #5669: Application of this regulation

Yucca Mountain site

Matrix USDOE - HLW; Matrix USNRC - HLW

Name	40CFR194
Title or Name	Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the 40 CFR Part 191 Disposal Regulations
Reference Number	Title 40, Code of Federal Regulations, Part 191
Date Promulgated or Proclaimed	1996-04-09	Regulation

Comment #7217: Application of this regulation

Waste Isolation Pilot Plant

Matrix DOE: TRU waste

REGULATIONS / LAWS

Country: United States of America Reporting Year: 2006

Name	ENPA05	
Title or Name	Energy Policy Act of 2005	
Reference Number	Public Law 109-58	
Date Promulgated or Proclaimed	2005-08-08	Law

MILESTONES

Country: United States of America | Reporting Year: 2006

Start Year or Reference Year:	1942	End Year	1945
Description of Milestone			
Manhattan Project creates radioactive waste at several sites in the USA			

Start Year or Reference Year:	1943	End Year	
Description of Milestone			
Chemical research activites begin at X-10 plant, predecessor to Oak Ridge National Laboratory			

Start Year or Reference Year:	1944	End Year	
Description of Milestone			
Waste operations begin at Hanford Site. Over the ensuing decades millions of gallons of high-level waste will be generated and stored pending future treatment and conditioning and burial grounds continue to dispose of solid radioactive waste.			

Start Year or Reference Year:	1946	End Year	1975
Description of Milestone			
Atomic Energy Commission established to administer nuclear energy programs			

Start Year or Reference Year:	1952	End Year	
Description of Milestone			
Waste management, including low-level waste disposal and storage of high-level waste, begins at Savannah River Site continuing to the present			

Start Year or Reference Year:	1956	End Year	
Description of Milestone			
The National Academy of Sciences recommends salt as a geologic disposal media			

Start Year or Reference Year:	1957	End Year	
Description of Milestone			
The National Academy of Sciences concludes radioactive waste could be safely disposed in a variety of geologic media within the USA			

Start Year or Reference Year:	1963	End Year	
Description of Milestone			
Idaho Chemical Processing Plant begins to calcine high-level waste into a dry granular powder for interim storage			

Start Year or Reference Year:	1968	End Year	1983
Description of Milestone			
Cesium and strontium are separated from Hanford high-level waste and made into capsules for storage and reuse			

Start Year or Reference Year:	1970	End Year	
Description of Milestone			
Congress enacts legislation requiring environmental impact analysis for all major federal actions, including waste management projects, under the National Environmental Policy Act. The Clean Air Act and the Occupational Safety and Health Act become the first of several environmental laws impacting waste operations			

Start Year or Reference Year:	1970	End Year	1972
Description of Milestone			
The Atomic Energy Commission proposes salt deposits near Lyons, Kansas, for permanent disposal of radioactive waste. In just two years the project was abandoned due to technical and political issues.			

MILESTONES

Country: United States of America Reporting Year: 2006

Start Year or Reference Year:	1970	End Year	
Description of Milestone			
The Atomic Energy Commission begins to classify and separately manage long-lived transuranic waste from low-level waste			

Start Year or Reference Year:	1974	End Year	
Description of Milestone			
The Atomic Energy Commission chooses a site in southeast New Mexico near Carlsbad for exploratory repository work.			

Start Year or Reference Year:	1975	End Year	
Description of Milestone			
A presidential decision is made not to reprocess commercial spent nuclear fuel in favor of a once-through fuel cycle			

Start Year or Reference Year:	1975	End Year	
Description of Milestone			
The Atomic Energy Commission is disbanded. In its place are created the U.S. Nuclear Regulatory Commission with regulatory jurisdiction over US commercial nuclear power and the Energy Research and Development Administration which manages the government's nuclear complex.			

Start Year or Reference Year:	1975	End Year	
Description of Milestone			
The Resource Conservation and Recovery Act and Toxic Substances Control Act, two environmental statutes dealing with hazardous waste, become law, having significant impacts on radioactive waste management in the USA.			

Start Year or Reference Year:	1977	End Year	
Description of Milestone			
The U.S. Department of Energy, a cabinet level agency, is formed from the Energy Research and Development Administration.			

Start Year or Reference Year:	1978	End Year	
Description of Milestone			
Congress gives authority to the Department of Energy for stabilization and control of inactive uranium mill tailing sites under the Uranium Mill Tailing Radiation Control Act.			

Start Year or Reference Year:	1979	End Year	
Description of Milestone			
Congress authorizes the Waste Isolation Pilot Plant, near Carlsbad, New Mexico, to demonstrate the safe disposal of transuranic waste			

Start Year or Reference Year:	1980	End Year	
Description of Milestone			
Final Environmental Impact Statement on Management of Commercially Generated Radioactive Waste is issued			

Start Year or Reference Year:	1980	End Year	
Description of Milestone			
Congress gives the Department of Energy responsibility for demonstrating high-level waste solidifcation at West Valley, New York, a former commercial reprocessing plant, under the West Valley Demonstration Project Act.			

MILESTONES

Country: United States of America Reporting Year: 2006

Start Year or Reference Year:	1980	End Year	
Description of Milestone			
Congress passes "superfund" legislation, the Comprehensive Environmental Response, Compensation, and Liability Act, aimed at cleanup of hazardous, toxics and radioactive waste sites. The legislation creates a trust fund to finance investigation and cleanup of abandoned and uncontrolled hazardous waste sites.			

Start Year or Reference Year:	1980	End Year	
Description of Milestone			
Congress enacts the Low-level Radioactive Waste Policy Act to promote commercial low-level waste disposal compacts for regional disposal.			

Start Year or Reference Year:	1982	End Year	1983
Description of Milestone			
The Nuclear Waste Policy Act becomes law directing the Department of Energy to find and characterize a repository site for spent nuclear fuel and high-level waste			

Start Year or Reference Year:	1983	End Year	
Description of Milestone			
Nine potential repository sites are selected in 6 states in various geological media for further consideration.			

Start Year or Reference Year:	1983	End Year	1988
Description of Milestone			
Full construction begins at the Waste Isolation Pilot Plant after completion of initial shafts and exploratory characterization.			

Start Year or Reference Year:	1987	End Year	
Description of Milestone			
Congress directs the Department of Energy to investigate only the Yucca Mountain Site, Nevada, for a potential repository ending studies on the remaining 8 sites. Characterization studies begin.			

Start Year or Reference Year:	1988	End Year	
Description of Milestone			
Congress gives consent to 3 low-level waste compacts. Several other compacts are formed, but no new regional repositories have moved to construction, although several were proposed but political and technical issues were not overcome.			

Start Year or Reference Year:	1989	End Year	
Description of Milestone			
The Department of Energy creates the Environmental Restoration and Waste Management Program (later called Environmental Management) to focus agency efforts on cleanup of government legacy radioactive waste sites.			

Start Year or Reference Year:	1992	End Year	
Description of Milestone			
Congress enacts the Federal Facility Compliance Act, requiring the federal government agencies to submit plans for treatment of mixed hazardous and radioactive waste to state agencies and the Environmental Protection Agency.			

Start Year or Reference Year:	1996	End Year	1998
Description of Milestone			
The Department of Energy achieved its complex-wide waste reduction goal of reducing waste by 50% compared to its 1993 baseline between 1996 and 1998.			

MILESTONES

Start Year or Reference Year:	1996	End Year	
Description of Milestone			
Vitrification of high-level waste begins at Savannah River Site and West Valley Demonstration Project.			

Start Year or Reference Year:	1997	End Year	
Description of Milestone			
The Department of Energy releases its Final Waste Management Programmatic Environmental Impact Statement. Decisions resulting from this analysis covered high-level waste treatement, transuranic storage and disposal, low-level waste storage and disposal, and hazardous waste disposal.			

Start Year or Reference Year:	1997	End Year	
Description of Milestone			
The Department of Energy initiates a sealed radioactive source acceptance program.			

Start Year or Reference Year:	1998	End Year	
Description of Milestone			
DOE releases its viability assessment for the Yucca Mountain site investigations.			

Start Year or Reference Year:	1999	End Year	
Description of Milestone			
After completion of all regulatory and legal requirements, the Waste Isolation Pilot Plant geologic repository begins disposal of transuranic waste.			

Start Year or Reference Year:	2000	End Year	2004
Description of Milestone			
Construction begins in 2000 on Advanced Mixed Waste Treatment Facility designed to repackage and treat legacy transuranic waste at the Idaho National Engineering and Environmental Laboratory. Operation begins in 2003 and shipments to WIPP begin in 2004.			

Start Year or Reference Year:	2002	End Year	
Description of Milestone			
In July 2002, the U.S. Congress approved final legislation approving development of a geologic repository at Yucca Mountain. The legislation was then signed into law by President Bush.			

Start Year or Reference Year:	2003	End Year	
Description of Milestone			
The USA ratified the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management in April 2003. The US fully participated in the first review meeting held in November 2003.			

Start Year or Reference Year:	2004	End Year	
Description of Milestone			
License application submitteed for new LLW disposal facility serving the Texas Compact by Waste Control Specialists, LLC			

Start Year or Reference Year:	2005	End Year	
Description of Milestone			
Completed physical cleanup at Rocky Flats site			

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
The Waste Isolation Pilot Plant receives regulatory approval to begin disposal of remote-handled transuranic waste.			

MILESTONES

Country: United States of America

Reporting Year: 2006

Start Year or Reference Year:	2006	End Year	
Description of Milestone			
Department of Energy completed decommissioning and remedial action of 3 former defense sites Fernald, Battelle Columbus, and Ashtabula.			

Policies

National Systems

	Policy	(Yes;Partially;No)
1	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment #7187: US Policy

A discussion on US policy can be found in Section B.1 of the U.S. National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

Comment #12133: Policies National Systems-Policy

U.S. National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, DOE/EM-0654, Rev 1, U.S. Department of Energy, October 2005 (See reading room for Internet link)

Attachment #1363: U.S. National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, DOE/EM-0654, U.S. Department of Energy, May 2003 (See reading room for Internet link)

File name:

File type: PDF Document

Member State's Reference # 2003-01

	Strategies	(Yes;Partially;No)
2	Has your country developed strategies to implement a national policy?	Yes

Comment #7188: US Practices

A discussion on US practices can be found in Section B.4 of the U.S. National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. The document is in the NEWMDB reading room.

Requirements (Yes;Partially;No)

Insert each of the following phrases into the question. "Has your country... ...according to IAEA Safety Series No. 111-S-1". For example, "Has your country identified the parties involved in the different steps of radioactive waste management according to IAEA Safety Series No. 111-S-1?

4	identified the parties involved in the different steps of radioactive waste management	Yes
5	specified a rational set of safety, radiological and environmental protection objectives	Yes
6	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
7	implemented controls over radioactive waste generation	Yes
8	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
9	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
10	implemented appropriate research and development to support the operational and regulatory needs	Yes
11	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
12	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

Responsibilities (Complete;Incomplete)

Indicate whether or not the following responsibilities have been defined in your country according to IAEA Safety Series No. 111-S-1.

Member State Responsibility

Policies

Country: United States of America **National Systems** Reporting Year: 2006

15	establish and implement a legal framework for the management of radioactive waste	Complete
16	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
17	define the responsibilities of waste generators and operators of waste management facilities	Complete
18	provide for adequate resources	Complete
Regulatory Body Responsibility		
20	enforce compliance with regulatory requirements	Complete
21	implement the licensing process	Complete
22	advise the government	Complete
Waste Generator and Operators of Waste Management Facilities Responsibility		
24	identify an acceptable destination for the radioactive waste	Complete
101	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
To indicate the status for implementing the responsibility to "manage radioactive waste safely" in your country, please answer the question "Does your country..." by inserting the following phrases. For example, "Does your country perform safety and environmental impact assessments?		
30	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
31	ensure adequate radiation protection for workers, the general public and the environment	Yes
32	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
33	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
34	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
35	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
36	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
37	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

Comment #7189: Information Collected

Information collected (clarification): manifests of waste sent to disposal sites contain information regarding generation, processing, transport and disposal of radioactive waste. The MIMS system compiles commercial LLW data. The USDOE compiles information from its facilities, such as WIPP.

	Clearance	(Yes;No)
115	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	No
116	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes

117	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Comment #9793: Policies National Systems-Clearance

The U.S. has regulations in place that allow case-by-case authorized limits for release of waste or material from radiation areas for disposal. These are successfully applied. However, the U.S. does not have clearance levels.

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)

If any of the following are part of your disposal policy, indicate Yes - All if they apply to all facilities, indicate Yes - Some if the apply to only some of the facilities or indicate No if they are not part of your policy at all.

40	Environmental Assessment (EA)	Yes - All
41	Environmental Impact Statement (EIS)	Yes - All
42	Performance Assessment (PA)	Yes - All
43	Quality Assurance (QA)	Yes - All
44	Safety Assessment (SA)	Yes - All
46	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - Some

Comment #7219: International Standards

USNRC and USDOE require strict adherence to QA programs. At present these standards do not implement ISO 9000. USNRC have considered how broader international standards in ISO 9000 could be applied within the USNRC 20 CFR Part 50 requirements. See the following link for USNRC staff paper on this topic: http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2003/secy2003-0117/2003-0117scy.html

	Operation	(Yes - All;Yes - Some;No)
47	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - All

Comment #7220: Waste Acceptance Requiremetns

Several documents on waste acceptance are included in the NEWMDB public reading room.

	Post-Closure	(Yes;No)
48	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	Yes
49	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
50	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes

If the use of active institutional controls is part of your Country's written policies, please indicate which of the following practices are either implemented or are being considered.

52	access restrictions	Yes
53	drainage and/or leachate collection system(s)	Yes
54	leachate treatment systems	Yes
55	environmental monitoring	Yes
56	facility monitoring	Yes
57	surveillance	Yes

58	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Comment #108: Reference Long Term Stewardship Report

A Report to Congress on Long-Term Stewardship, DOE/EM-0563, January 2001
Consists of 2 volumes: a summary report and site summaries. Copies available from U.S. Department of Energy, Office of Legacy Management

Processing/Storage

	Policies/Procedures	(Yes;No)
	Does your country have written policies or written procedures for the following:	
60	waste sorting/segregation	No
61	waste minimization	Yes
62	waste storage	Yes
63	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
65	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

NOTE: The statement above implies wastes that require processing should not be placed into storage facilities (except for short-term, interim storage awaiting processing) in an unprocessed state for significant periods, where significant is defined by the regulatory body.

Comment #111: Recycling Policies

Executive Order 12780 Federal Agency Recycling and the Council on Federal Recycling and Procurement Policy
Executive Order 13101 Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition

	Implementation	(Yes;No)
67	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
68	In your Country are there any centralized waste processing facilities?	Yes
69	In your Country are there any mobile waste processing facilities?	Yes

Comment #112: Question on centralized processing

The US has some commercial and governmental facilities that process/treat waste prior to disposal. These are assumed to meet the IAEA definition of centralized processing, although they may only process a small portion of wastes from throughout the nation.

	Foreign	(Yes;No)
108	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
111	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Spent SRS

	Registration	(Yes;No)
	Please indicate the types of registries used in your country for sealed radioactive sources (SRS) (please check all that apply)	
71	**Is there a national level registry?**	Yes
72	If answer was yes, is the registry used only for disused/spent SRS?	No
74	**Are there regional-level registries (one or more)?**	Yes

75	If the answer was yes, are any registries used only for disused/spent SRS?	No
77	**Are there local-level registries (one or more)?**	Yes
102	If the answer was yes, are any registries used only for disused/spent SRS?	No

Comment #110: Sealed Sources Registrations

National: US Nuclear Regulatory Commission - National Sealed Source and Device Registry

Regional: US Department of Energy Offsite Sealed Source Recovery Program Registry

Local: Some US Department of Energy sites have local registries

	Procedures	(Yes;No)
78	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	No

	Agreements	(Yes;No)
	Does your Country have any agreements in place whereby spent sealed radioactive sources (SRS) are returned to their supplier by the user (check all options that apply)?	
80	Government to Government agreements	No
81	Government - Supplier agreements	Yes
82	Supplier-User agreements	Yes
84	Do any agreements include suppliers that are outside of your Country?	No

	Release / Disposal	(Yes;No)
86	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	No
87	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	Yes
88	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
89	Has your Country implemented dedicated disposal facilities for spent SRS?	No
90	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

	Radioactive Waste	(Yes;No)
91	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

Comment #160: Citations for import/export regulation and law

Title 10, Code of Federal Regulations, Part 110.1, Export and Import of Nuclear Equipment and Material
United States Code, Title 42, Chapter 23, Subchapter X, International Activities (Sections 2153, 2160, 2160c)
Atomic Energy Act of 1954

	Spent Fuel	(Yes;No)

92	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	Yes

Liquid HLW

	Storage	(Yes;No)
93	Does your Country have high-level liquid wastes in storage?	Yes

	Processing	(Yes - All;Yes - Some;No)
94	If your Country has high-level liquid wastes in storage, are there documented plans in place to process these liquids?	Yes - All

	Timeframe	(Yes - All;Yes - Some;No)
95	If your Country has high-level liquid wastes in storage, are there plans to have this waste be processed within a specified time frame?	Yes - All
96	If the answer to the previous question is Yes, what year is this processing planned to be completed (format = YYYY)	2042

UMMT

	Responsibility	(Yes;No)
97	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
98	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - Some

Comment #109: Decommissioning costs

Fees are collected from nuclear power utilities to cover life cycle costs including decommissioning of HLW repositories

	Facilities	(Yes;No)
106	Does Your Country have any nuclear fuel cycle facilities?	Yes
107	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
99	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	No
100	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No