IAEA Conference Secretariat:

Scientific Secretary:	I. Khamis
Conference Coordination:	K. Morrison
	I. Orlova
Administrative Support:	C. Czipin

Local Co-ordination:

T. Nishihara
HTGR Cogeneration Design and Assessment Group
Nuclear Science and Engineering Directorate
Japan Atomic Energy Agency (JAEA)

Location of the Conference:

Oarai Research and Develop Center (R&D Center)
JAEA
4002 Narita-cho, O-arai-machi
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Working Language:

English

Resolutions:

No resolutions may be submitted for consideration on any subject; no votes will be taken.

TIMETABLE

Monday, 16 April 2007

08:30	Registration
09:30–10:00	Session 1 Opening Session (Plenary)
10:00–12:30	Session 2 (Plenary): Outlook for Nuclear Power and the Future of Process Heat Applications
12:30–13:30	Lunch Break
13:30–15:10	Session 3 (Plenary): Nuclear Energy for Non-Electric Applications: Technology And Safety
15:10–15:40	Coffee Break
15:40–17:50	Session 3 con't:
18:30	Joint IAEA/JAEA Reception at ASAHI (JAEA Restaurant in Oarai)

Tuesday, 17 April 2007

09:00–10:40	Session 4 (Plenary): Economics and Demand for Non-Electrical Applications
10:40–11:10	Coffee Break
11:10–12:30	Session 4 con't:
12:30–13:30	Lunch Break
13:30–15:30	Session 5 (Parallel): High Temperature Applicatons Session 6 (Parallel): Nuclear Seawater Desalination and Other Applications
15:30/ 15:25–15:50	Coffee Break
15:50–17:50/ 17:15	Sessions 5 con't Session 6 con't

Wednesday, 18 April 2007

9:00–11:00/	Session 5 con't
9:00–10:40	Session 6 con't
11:00–11:30 10:40–11:30	Coffee Break
11:30–12:40	Session 7 (Plenary): Round Table Discussion
12:40–13:40	Lunch Break
13:40–15:20	High Temperature Engineering Test Reactor Workshop (Organized by JAEA)
15:20–15:50	Coffee Break
15:50–17:00	Session 8 (Plenary): Conclusions and Recommendations
17:00–17:30	Session 9 (Plenary): Closing Session
18:30	Conference Dinner (Optional)

Thursday, 19 April 2007

09:00–11:00	Technical tour of the nuclear hydrogen facility (organized by JAEA)

POSTERS:

Posters will be displayed throughout the conference. Authors are requested to be at their posters during the coffee breaks for discussions with participants.

MONDAY, 16 APRIL 2007

08:30 **Registration**

09:30–10:00 **SESSION 1 (Plenary):**
Welcome & Opening Addresses
Meeting Room A

10:00-12:30 **SESSION 2 (Plenary):**
Outlook for Nuclear Power and the Future of Process Heat Applications
Meeting Room A

Chairpersons: L. Awerbuch, IDA
T. Dujardin, OECD/NEA

No of Paper IAEA-CN-152-	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
71	**T. Dujardin**	OECD/NEA	25	Nuclear Energy Outlook
65	**A. Omoto**	IAEA	25	Rising Expectations for Nuclear Power
55	**K. Matsui**	Japan	25	Possible scenarios and its effects by non-power application of nuclear energy – Japan cases
59	**K. Verfondern**	Germany	25	Potential for Nuclear Process Heat Application
57	**L. Awerbuch**	IDA	25	Integration of Desalination, Power, Environment and Security

12:30–13:30 **Lunch Break**

MONDAY, 16 APRIL 2007

13:30–17:50 **SESSION 3 (Plenary): Nuclear Energy for Non-Electric Applications: Technology and Safety Meeting Room A**

Chairpersons: S. Shiozawa, JAEA
A. Omoto, IAEA

No of Paper IAEA-CN-152-	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
69	**V. Kuznetsov**	IAEA	20	Opportunities, Challenges and Strategies for Innovative SMRs Incorporating Non-electrical Applications
20	**I. Dulera**	India	20	The Indian High Temperature Reactor Programme
41	**Y. Baranaev**	Russia	20	Feasibility Study on Deployment of the First Unit of RUTA-70 Reactor in Obninsk: District Heating, Technological, and Medical Applications
51	**M. Richards**	USA	20	Pre-conceptual Hydrogen Production Modular Helium Reactor Designs
13	**X. Vitart**	France	20	A general survey of the potential and the main issues associated with the thermo-chemical cycles for hydrogen production using nuclear heat
15:10–15:40	**Coffee Break**			
40	**Y. Kuznetsov**	Russian Federation	20	Non-Electricity Application of Nuclear Energy: Some general issues and prospects
29	**N. Sakaba**	Japan	20	Conceptual system design of non-nuclear grade IS process to be coupled with the HTTR
35	**J. Chang**	Republic of Korea	20	Status of Nuclear Hydrogen Production Technology Development in Korea
52	**B. Summers** **S. Herring**	USA	20	The petrochemical-nuclear project in Texas to use hydrogen from a Nuclear Power Plant for refinery
71	**M A. Fütterer**	European Commission	15	High temperature process heat generation with medium temperature heat source
72	**M A. Fütterer**	European Commission	15	Nuclear power for the production of liquid hydrocarbons

18:30 **Joint IAEA/JAEA Reception at ASAHI (JAEA Restaurant in Oarai)**

TUESDAY, 17 APRIL 2007

9:00–12:30 **SESSION 4 (Plenary): Economics and Demand for Non-Electric Applications**
Meeting Room A

Chairpersons: L. Brey, USA
M. Megahed, Egypt

No of Paper IAEA-CN-152-	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
39	**K. Ono**	Japan	20	Allocating costs for non-electricity products from generation IV nuclear energy systems
56	**Y. Tsuchie**	Japan	20	Economics, cost and demand for non-electric applications of nuclear energy: Industrial hydrogen applications
14	**S. Nisan**	France	20	A comprehensive economic evaluation of desalination systems, using renewable fossil-fuelled based and nuclear energies
1	**L. Martins Jr**	Brazil	20	Economic Evaluation of Nuclear Desalination in the North eastern region of Brazil
3	**L. Tian**	China	20	Economic-environmental effects analysis of process steam supplied by a 200 MW Nuclear Heating Reactor using the clean development mechanism (CDM)
10:40–11:10	**Coffee Break**			
4	**D. Song**	China	20	Sensitive Economic Analysis of Nuclear Desalination by using DEEP
62	**I. Khamis**	IAEA	20	The Desalination Economic Evaluation Programme (DEEP)
45	**M. Guellouz**	Tunisia	20	Technical and Economical Evaluation of Nuclear Water
25	**A. Sudi**	Indonesia	20	Economic and financial assessment of nuclear desalination
12:30–13:30	**Lunch Break**			

TUESDAY, 17 APRIL 2007

13:30–18:10 **SESSION 5 (Parallel Session): High Temperature Applications Meeting Room B**

Chairpersons: C. Forsberg, USA
A.I. Miller, Canada

No of Paper IAEA-CN-152	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
2	**A. I. Miller**	Canada	20	A review of Canadian advances in thermochemical hydrogen production within the context of conventional hydrogen production
16	**K. Verfondern**	Germany	20	Survey on 20 years of research and development on nuclear process heat applications in Germany
17	**H. Klefenz**	Germany	20	Integration to Nuclear Energy and Chemical Production
18	**C.S.R. Prasad**	India	20	Heterogeneous Bunsen Reaction: Analysis and Experimental Study of chemical absorption of Sulfur dioxide and dissolution of Iodine into aqueous reacting system
19	**S. Mohan**	India	20	A new approach to improve hydrogen yield for HIX system of IS Process
6	**K. Ahmed**	Egypt	20	The future of nuclear energy as primary source for clean hydrogen energy system in development countries
15:30–15:50	**Coffee Break**			
30	**S. Kubo**	Japan	20	Closed cycle and continuous operations by a thermo-chemical water-splitting IS process
33	**J.H. Kim**	Republic of Korea	20	Modeling of Evaporation and Decomposition Processes of H2SO4 in SI cycle
38	**M. Madisha**	Netherlands	20	System comparisons of HTGR coupling to Hydrogen Production from Sulfur-Iodine, High-Temperature electrolysis and sulfur process
31	**Y. Kato**	Japan	20	Carbon Recycle Nuclear Hydrogen Carrier System using Nuclear Power
34	**Y.J. Shin**	Republic of Korea	20	Computational analysis in a packed column for SO3 Decomposition in Sulfur-Iodine Process
64	**J.L. Kloosterman**	Netherlands	20	Conceptual Design of a Natural Circulation Cooled Nuclear Battery for process heat applications
32	**T. Nakagiri**	Japan	20	Development of a new thermo-chemical and electrolytic hybrid hydrogen production process for sodium cooled FBR – Status and Future Plan

TUESDAY, 17 APRIL 2007

13:30–17:15 **SESSION 6 (Parallel Session): Nuclear Seawater Desalination and Other Applications**
Meeting Room A

Chairpersons: P.K. Tewari, India
S. Nisan, France

No of Paper IAEA-CN-152	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
53	**I. Khamis**	IAEA	25	An Overview of Global Activities in Nuclear Desalination
	P.K. Tewari	India		
60	**M. Nasreddine**	AAEA	25	The contribution of the Arab Atomic Energy Agency in Desalination Projects in the Arab Countries
61	**M. Megahed**	Egypt	25	The need for desalination in the Mediterranean region and the importance of nuclear energy
68	**G. Ejjeh**	IDA	20	Desalination and Water Reuse – A technology for the future
12	**S. Bedrose**	Egypt	20	Suggested Programme for Developing Sinai Desert Community using Nuclear Energy
15:25–15:50	**Coffee Break**			
24	**G. Sunaryo**	Indonesia	20	Prospect on Desalination by using Nuclear Energy in Indonesia
43	**W. Kriel**	South Africa	20	Conceptual design of desalination plant using PBMR as heat source
23	**B. Suprawoto**	Indonesia	20	Feasibility Study for Nuclear Desalination Plant in Madura Island
63	**M.Y. Bahran**	Yemen	25	The Economic Prospects of Nuclear Desalination in Yemen

WEDNESDAY, 18 APRIL 2007

09:00–11:00 **SESSION 5 cont'd (Parallel Session): High Temperature Applications**
Meeting Room B

Chairpersons: A.I. Miller, Canada
C. Forsberg, USA

No of Paper IAEA-CN-152-	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
50	**M. Petri**	USA	20	The Value of Product Flexibility in Nuclear Hydrogen Technologies: A Real Option Analysis
44	**R. Greyvenstein**	South Africa	20	Role of HTGR Technology in Synthetic Fuel Production
46	**B. Buckingham**	USA	20	Status of the Sulfur-Iodine engineering demonstration loop
32	**S.H. Kim**	Republic of Korea	20	Verification tests performed for development on an integral type reactor
48	**M. Mintz**	USA	20	Hydrogen Production and Delivery Analysis in U.S. Markets: Cost, Energy and Greenhouse Gas Emissions
42	**W.A. Kriel, R. Greyvenstein**	South Africa	20	Status of PBMR Process Heat Plant Project

11:00–11:30 **Coffee Break**

09:00–10:40 **SESSION 6 cont'd (Parallel Session): Nuclear Seawater Desalination and Other Applications**
Meeting Room A

Chairpersons: S. Nisan, France
P.K. Tewari, India

No of Paper IAEA-CN-152-	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
58	**S.J. Herring**	USA	20	Non electrical applications within GenIV reactor systems
69	**A. Doval**	Argentina	20	Overview of the Safety Aspects of Nuclear Desalination Coupling
22	**A. Matcheswalla**	India	20	Design considerations in secondary cycle system for coupling existing nuclear power plants to retrofit desalination plant
61	**B. A. Rolfe**	Canada	20	CANDU Plant for Oil Sands Applications
47	**C. Forsberg**	USA	20	Fuel Ethanol Production using Nuclear Plant Steam

10:40–11:30 **Coffee Break**

WEDNESDAY, 18 APRIL 2007

11:30–12:40 **SESSION 7 (Plenary):**
Round Table Discussion on Challenges In the Introduction of Nuclear Heat Applications

Meeting Room A

Chairpersons: S. Shiozawa, Japan
I. Khamis, IAEA

Panelists:
A. Eltayeb, Sudan
C. Forsberg, USA
S.M. Ghurbal, Libyan Arab Jamahiriya
Z. Kodah, Jordan
I. Othman, Syrian Arab Republic

12:40–13:40 **Lunch Break**

13:40–15:20 **HTTR WORKSHOP (Organized by JAEA)**
Chairpersons: R. Hino, JAEA

No of Paper IAEA-CN-152-	*Name*	*Designating Member State/Organization*	*Time (min)*	*Title of Paper*
73	**N. Nojiri**	Japan	25	Operation of the High-Temperature Engineering Test Reactor
74	**S. Ueta**	Japan	25	Fuel Researches in the HTTR Project
75	**K. Takamatsu**	Japan	25	Development and Validation of Analysis Method for Reactor Performance and Safety Characteristics of HTGR
76	**H. Sato**	Japan	25	Study on safety related issues of the Cogeneration VHTR

15:20–15:50 **Coffee Break**

15:50–17:00 **SESSION 8 (Plenary):**
Conclusions and Recommendations

Chairpersons:
S. Shiozawa, Japan
I. Khamis, IAEA

17:00–17:30 **SESSION 9 (Plenary):**
Closing Session

Chairpersons:
S. Shiozawa, Japan
I. Khamis, IAEA

18:30 **Conference Dinner (optional)**

THURSDAY, 19 APRIL 2007

9:00-11:00 TECHNICAL TOUR OF NUCLEAR HYDROGEN FACILITY

(organized by JAEA)

LIST OF POSTERS

Posters will be displayed throughout the conference. Authors are requested to be at their posters during the coffee breaks for discussions with participants.

No of Paper IAEA-CN-152-	*Name*	*Designating Member State/Organization*	*Title of Paper*
5	**J.F. Zuniga Santana**	Cuba	Economic Evaluation of seawater desalination in Cuba using DEEP
9	**Y. Abdelaziz**	Egypt	Technical and Economic consideration for water desalination
11	**Y. Ibrahim**	Egypt	An overview of El-Dabaa RO Experimental Facility
21	**A. Jain**	India	Desalination of seawater utilizing waste heat from nuclear plants using membrane distillation
27	**K. Sepanloo**	Iran, Islamic Rep. of	Safety issues of production of hydrogen by nuclear power
36	**B. Erdev**	Mongolia	Nuclear Power Demand in Mongolia, Erdev B. Mongolia
70	**T. Zidi, A. Belkaid**	Algeria	Implementation of Nuclear Seawater desalination in Algeria

PARTICIPATION IN IAEA SCIENTIFIC MEETINGS

Governments of Member States and those organisations whose activities are relevant to the meeting subject matter are invited to designate participants in IAEA scientific conferences and symposia. In addition, the IAEA itself may invite a limited number of scientists as invited speakers. Only participants designated or invited in this way are entitled to present papers and take part in the discussions.

Representatives of the press, radio, television or other information media and members of the public, the latter as "observers", may also be authorised to attend, but without the right to take part in the proceedings.

Scientists interested in participating in any of the IAEA meetings listed in this programme should request information from the governmental authorities of their own countries, in most cases the Ministry of Foreign Affairs or national atomic energy authority.

PUBLICATIONS

Proceedings

The proceedings of the symposium will be published by the IAEA in unedited form as a CD-ROM. All participants will receive a free copy of the CD-ROM.

Other IAEA Publications

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Fax: (+43 1) 2600-29302
Email: sales.publications@iaea.org
Internet:
http://www-pub.iaea.org/MTCD/publications/publications.asp

IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE CONFERENCE

DOCUMENT NUMBER	*TITLE*	*YEAR*
1085	Hydrogen as an energy carrier and its production by nuclear power	1999
761	High temperature applications of nuclear energy	1994
881	Design and development status of small and medium reactor systems	1996
923	Role of IAEA in non-electric applications of nuclear energy	1997
801	Development of safety principles for the design of future nuclear power plants	1995
881	Design and development status of small and medium reactor systems	1995
1444	Optimization of the coupling of nuclear reactors and desalination systems	2005
1542	Status of nuclear desalination in the IAEA Member States	2006
942	Thermodynamic and economic evaluation of co-production plants for electricity and potable water	1992
1056	Nuclear heat applications: design aspects and operating experience	1998
1210	Safety related design and economic aspects of HTGR	1998

FORTHCOMING SCIENTIFIC MEETINGS SCHEDULED BY THE IAEA

2007

International Conference on Knowledge Management in Nuclear Facilities
18–22 June, Vienna, Austria

Second International Symposium on Nuclear Power Plant Life Management
15–18 October, Shanghai, China

International Conference on Research Reactors: Safe Management and Effective Utilization
5–9 November, Sydney, Australia

International Symposium on Clinical PET and Molecular Medicine
10–14 November, Bangkok, Thailand

International Conference on Illicit Trafficking
November

2008

International Conference on Topical and Infrastructure Issues in Nuclear Installations Safety

Ministerial Conference on the Future Application of Nuclear Power

International Conference on Induced Mutations in Higher Plants (ISIM)

International Conf. on Opportunities and Challenges for Water Cooled Reactors in the 21st Century – Advanced Water Cooled Reactor and Optimization for Operation and Maintenance

22nd IAEA Fusion Energy Conference, Geneva

International Conference on Nuclear Security: Global Directions for the Future

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For information on forthcoming scientific meetings,
please consult the IAEA website: http://www.iaea.org/

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