

INTERNATIONAL CONFERENCE

THE SAFE DECOMMISSIONING FOR NUCLEAR ACTIVITIES: ASSURING THE SAFE TERMINATION OF PRACTICES INVOLVING RADIOACTIVE MATERIALS

14 – 18 October 2002

Provisional Agenda

President of the Conference: W. Renneberg

Conference Secretariat:

Scientific Secretary: D. Reisenweaver, IAEA

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R. Wendling, BMU, Germany

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Conference Location: Maritim Pro Arte Hotel Berlin
Friedrichstrasse 151
D-10117 Berlin
Germany
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Working Languages: English and Russian

TIMETABLE**Sunday, 13 October 2002**

16:00 – 18:30 Registration
17:00 20:00 Reception

Monday, 14 October 2002

08:00 – 09:30 Registration
09:30 - 10:40 Opening Session
10:40 - 11:00 Break
11:00 – 13:00 Session 1A
13:00 – 14:15 Lunch Break
14:15 - 16:25 Session 1B
15:15 – 15:45 Break
15:45 – 16:25 Continue Session 1B
16:25 – 17:45 Session 1C

Tuesday, 15 October 2002

9:00 – 12:45 Session 2A
9:00 – 10:30 Presentation of Papers
10:30 – 11:00 Discussion of Papers
11:00 – 11:30 Break
11:30 – 12:45 Panel and Discussion
12:45 – 14:00 Lunch
14:00 – 17:30 Session 2B
14:00 – 15:00 Presentation of Papers
15:00 – 15:30 Discussion of Papers
15:30 – 16:00 Break
16:00 – 17:30 Panel and Discussion
17:30 – 20:00 Poster Session and Reception

Wednesday, 16 October 2002

09:00 – 12:45 Session 2C
09:00 – 10:30 Presentation of Papers
10:30 - 11:00 Discussion of Papers
11:00 – 11:30 Break
11:30 – 12:45 Panel and Discussion
12:45 – 14:00 Lunch
14:00 – 17:30 Session 2D
14:00 – 15:00 Presentation of Papers
15:00 – 15:30 Discussion of Papers
15:30 – 16:00 Break
16:00 – 17:30 Panel and Discussion
19:00 – 22:00 Conference Dinner

Thursday, 17 October 2002

09:00 – 15:30 Session 2E
09:00 – 11:00 Presentation of Papers
11:00 – 11:30 Break
11:30 – 12:00 Discussion of Papers
12:00 – 13:30 Lunch
13:30 – 15:30 Panel and Discussion
15:30 – 17:30 Break
17:30 – 18:30 Session 3A

Friday, 18 October 2002

Technical Tours

SUNDAY, 13 OCTOBER 2002

16:00 – 18:30 Registration
 17:00 20:00 Reception

MONDAY, 14 OCTOBER 2002

08:00 – 09:30 Registration

09:30 – 10:00 Opening Session
T. Taniguchi, I.A.E.A.

Bundesamt f. Strahlenschutz:	W. König
City of Berlin	P. Strieder
I.A.E.A.	A.J. González

10:00 – 10:30 Key Speech
President of the Conference W. Renneberg, DG, BMU

10:30 – 10:40 Summary of findings of the International Conference on Occupational
 Radiation Protection, held in Geneva 24-30 August 2002
Th. Zeltner, Switzerland

10:40 - 11:00	Break
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Session I – Background

Background information will be provided which will set the stage of the discussions.

11:00 – 13:00 *Session 1A: Magnitude of the Decommissioning Task*
 Chairman: *V. Lebedev, Russian Federation*

General information concerning the magnitude of the current and future decommissioning effort worldwide will be provided. Major concerns that have arisen or have been identified during the implementation of current programmes will be identified.

Paper CN-93.1A[1]	P. Bredell, South Africa
Paper CN-93.1A[2]	R. Card, U.S.A.
Paper CN-93.1A[3]	M. Tanaka, Japan
Paper CN-93.1A[4]	D. Mertin, Germany
Paper CN-93.1A[5]	V. Akhounov, Russian Federation
Paper CN-93.1A[6]	J.A. Hoyos Perez, European Union

13:00 – 14:15	Lunch Break
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14:15 – 16:25 *Session 1B: Regulatory Approaches and Safety Strategies*
 Chairman: *A. Lacoste, France*

The current status of safety principles, criteria and requirements used or proposed for decommissioning facilities will be presented. Strategies that have been considered or adopted by various national authorities will be described and discussed.

Paper CN-93.1B[1]	D Reisenweaver, IAEA
Paper CN-93.1B[2]	G. Dicus, U.S.A.

Paper CN-93.1B[3] L. Williams, UK

15:15 – 15:45	Break
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15:45 – 16:25 Continue Session 1B

Paper CN-93.1B[4] S. Kutas, Lithuania
 Paper CN-93.1B[5] G. Jack, Canada

16:25 – 17:45 *Session 1C: Status and Development of Decommissioning Technologies*
 Chairman: V. Kansra, India

The status of technologies, that are used or being developed for decommissioning, as well as areas where improved technologies would assist decommissioning activities will be identified.

Paper CN-93.1C[1] F.-W. Bach, Germany
 Paper CN-93.1C[2] T. Ishikura, Japan
 Paper CN-93.1C[3] V. Vainshtein, Russian Federation
 Paper CN-93.1C[4] F. Øwre, Norway

TUESDAY, 15 OCTOBER 2002

Session 2 – Issues

Important issues associated with the decommissioning of nuclear facilities will be identified. The presentation of invited papers stating the concerns will be followed by panels, which are focused on specific topics and participant discussion.

9:00 – 12:45 *Session 2A: Decommissioning Strategies and Regulations*
 Chairman: H. Schatke, Germany

Safety issues that must be considered when developing national policies and regulations for decommissioning will be identified. The necessary framework and the distribution of roles and responsibilities between legislation, regulation and operation will be covered. Waste concerns related to decommissioning and the aspects of environmental impacts associated with decommissioning activities will be addressed.

Paper CN-93.2A[1] C. Paperiello, U.S.A.
 Paper CN-93.2A[2] F. Taylor, U.K.
 Paper CN-93.2A[3] M. Hansen, Denmark

10:30 – 11:00 Discussion of Papers

11:00 – 11:30	Break
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11:30 – 12:45 Panel and Discussion

The following questions will be discussed: How specific should decommissioning regulatory requirements be?; What are the specific safety issues associated with immediate dismantling, safe enclosure and entombment?; Is entombment an acceptable alternative to immediate dismantling and safe enclosure? What is a reasonable time period for facilities to remain in a safe enclosure state?; What is the strategy for dealing with radioactive waste in the absence of a waste disposal facility? Is it necessary to defer dismantling if such a facility is not available?; Can contaminated soil be left in place, and if so, under what circumstances?

Panelists: L. Noviello, Italy
 J. Averous, France
 V. Stefula, Slovak Republic
 H. Park, Republic of Korea

12:45 – 14:00	Lunch
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14:00 – 17:30 *Session 2B: Planning and Implementation*
 Chairman: L. Keen, Canada

Issues associated with early, continuous and complete planning for decommissioning activities will be highlighted. This includes issues related to the transition from operations to the implementation of the decommissioning strategy, the schedule and time frame for decommissioning activities and assuring that the proper resources are available when needed. Issues affecting decision-making, i.e., the management of waste in the absence of disposal facilities will also be addressed, as well as the importance of safety/environmental impact assessments, record keeping and characterization. Further the issues related to the interaction among organizations involved and competent project management will be addressed.

Paper CN-93.2B[1] M. Laraia, IAEA
 Paper CN-93.2B[2] D. Rittscher, Germany

15:00 – 15:30 Discussion of Papers

15:30 – 16:00	Break
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16:00 – 17:30 Panel and Discussion

The following questions will be discussed: What are the specific safety issues associated with immediate dismantling, safe enclosure and entombment?; What are the significant issues associated with the transition from operations to the implementation of the decommissioning strategy?; When should planning for decommissioning be initiated?; When, how and to what extent should characterization be performed to support decommissioning implementation?; Are the types of waste generated during decommissioning different from those generated during operation of a facility, and if so, how should they be managed?; What type of record keeping system should be established to support decommissioning?

Panelists: L. Goodman, U.S.A.
 X. Wang, China
 M. Schrauben, Belgium
 V. Ivanov, Russia
 J. Gravalos, Spain

17:30 – 20:00	Poster Session and Reception
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WEDNESDAY, 16 OCTOBER 2002

09:00 – 12:45 *Session 2C: Funding Approaches and Strategies*
 Chairman: H. Garnett, Australia

The focus will be on issues regarding funding programmes and requirements. The way funding should be regulated, the importance of early cost estimates and how funds should be managed over long time periods will be discussed, as well as the financial consequences of premature closing of facilities, bankruptcy of owners, inherited (abandoned) facilities, change of ownership and international co-operation.

Paper CN-93.2C[1] C. Müller-Dehn, Germany
 Paper CN-93.2C[2] A. Väätäinen, Finland
 Paper CN-93.2C[3] L. Boing, U.S.A.

10:30 - 11:00 Discussion of Papers

11:00 - 11:30	Break
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11:30 – 12:45 Panel and Discussion

The following questions will be discussed: How do you ensure that funds are available when needed and what are reasonable funding mechanisms?; Who should control the funds collected to support decommissioning activities?; How should inherited or abandoned facilities or sites that require decommissioning be funded?; How does the transfer of ownership of a facility affect funding?

Panelists: O. Söderberg, Sweden
 I. Dumchev, Kazakhstan
 D. Selby, U.K.

12:45 – 14:00	Lunch Break
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14:00 – 17:30 *Session 2D: Consideration of Social Issues*
 Chairman: C. Paperiello, U.S.A.

The social impacts and public acceptance when a nuclear facility is permanently taken out of service will be discussed. Discussions will include the effects on the local economy due to unemployment and the reduction of industrial activities in the immediate area. Other items that will be discussed include the early involvement and identification of interested parties, thorough disclosure of information during the entire decommissioning process, discussion of possible future uses of the site and the impact of waste transportation on the community infrastructure.

Paper CN-93.2D[1] V. Shatalov, Russia
 Paper CN-93.2D[2] J. Barceló Vernet, Spain
 Paper CN-93.2D[3] P. Uhlmann, Germany

15:00 – 15:30 Discussion of Papers

15:30 – 16:00	Break
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16:00 – 17:30 Panel and Discussion

The following questions will be discussed: What are the public concerns associated with the permanent closing of a nuclear facility?; What are effective approaches for involving the public?; How is the impact of the closing of a facility on the local population minimized?; What is the definition of an “interested party”?; How is public acceptance measured?; How is the decision making process conveyed to the public?

Panelists: A. Dainius, Lithuania
 V. Kholosha, Ukraine
 S. Robinson, U.K.
 L. Milam, U.S.A.

19:00 – 22:00	Conference Dinner
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THURSDAY, 17 OCTOBER 2002

09:00 – 15:30 *Session 2E: Criteria for Removal of Controls*
Chairman: J. Cooper, U.K.

The development and implementation of criteria for the removal of material, equipment, buildings and land from regulatory control will be discussed. The question of what criteria should be used when defining the limits for this material will be raised. The issue of recycling and reuse of material will be addressed.

Paper CN-93.2E[1] G. Linsley, IAEA
 Paper CN-93.2E[2] J.C. Lentijo, Spain
 Paper CN-93.2E[3] J. Greeves, U.S.A.
 Paper CN-93.2E[4] H. Schattke, Germany

11:00 – 11:30 Break

11:30 – 12:00 Discussion of Papers

12:00 – 13:30 Lunch

13:30 – 15:30 Panel and Discussion

The following questions will be discussed: How do you define criteria for the release of buildings and sites from regulatory control?; Should different criteria be used when releasing material, buildings and land from practices versus interventions?; Should different methodologies be used when developing criteria for removing material and areas from regulatory control which are contaminated by artificial radionuclides versus when contaminated with natural occurring radioactive material?; How can compliance with developed criteria be assured?; Does material coming from a regulated practice differ from material that is not coming from a regulated practice, but still contains radioactive material?; Should there be different criteria if material is recycled or reused than if it is released directly into the public domain, and if so, how is this controlled?

Panelists: L. Andersson, Sweden
 J. Averous, France
 S. Baranovsky, Russia
 K. Crowley, U.S.A.
 J. Kenigsberg, Belarus

15:30 – 17:30 Break

Session 3 – Closing

Chairman: W. Renneberg, Germany

17:30 – 18:30 *Session 3A: Presentation of Findings*

Session 2A Chairman
 Session 2B Chairman
 Session 2C Chairman
 Session 2D Chairman
 Session 2E Chairman
 Closing Chairpersons' Summary

FRIDAY, 18 OCTOBER 2002

Technical Tours

CONTRIBUTED PAPERS/POSTERS

Sixty (60) Contributed Papers have been accepted for inclusion in the “Book of Contributed Papers”, which is available to participants upon registration. Authors of contributed papers were encouraged to present the substance of their papers as posters. The posters will be displayed during the Conference. The list of posters is presented below.

PARTICIPATION IN AGENCY SCIENTIFIC MEETINGS

Governments of Member States and certain organizations are invited to designate participants in Agency scientific conferences, symposia and seminars. In addition, the Agency itself may invite a limited number of scientists as invited speakers. Only participants designated or invited in this way are entitled to present papers.

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

Scientists interested in participating in any of the Agency’s meetings should request information from the government authorities of their own countries, in most cases the Ministry of Foreign Affairs or the national atomic energy authority.

PROCEEDINGS

Publication

The proceedings of the Conference containing opening speeches, invited papers, summaries of panel discussions and the findings of the Conference will be published by the Agency as soon as possible after the meeting.

Orders

No registration fee is charged to participants but they are encouraged to order for themselves or on behalf of their supporting organization at least one copy of the proceedings. These can be obtained at the special price of EURO 30 representing half of the estimated sales price provided that they are ordered during the meeting at the Conference Desk.

OTHER AGENCY PUBLICATIONS

All Agency publications may be ordered at the Conference Desk or directly from the Sales and Promotion Unit, International Atomic Energy Agency, P.O. Box 100, A-1400 Vienna, Austria.

Fax: (+43 1) 2600 29302

Email: sales.publications@iaea.org

Internet: <http://www.iaea.org.worldatom/books>

LIST OF POSTERS

<i>No. of paper IAEA- CN-93</i>	<i>Name</i>	<i>Designating Member State / Organization</i>	<i>Title of Paper</i>
[03]	E.T. GLOVER, et al.	Ghana	Challenges in the management of decommissioning waste of nuclear facilities in Ghana
[08]	J. L. DIAZ DIAZ, et al.	Spain	Dismantling and rehabilitation programme of nuclear and radioactive facilities at the Spanish research Centre CIEMAT
[10]	I. HILLEBRAND, et al.	Germany	Dismantling the reactor vessel of the compact sodium-cooled nuclear reactor facility (KNK) under consideration of radiation protection aspects
[11]	P. POSKAS, et al.	Lithuania	Planning for decommissioning of Ignalina NPP Unit 1
[12]	K.G. GHAZARYAN	Armenia	Planning activities for ANPP decommissioning
[13]	A. ZAVAŽANOVA, et al.	Slovak Republic	NPP A-1 spent fuel pond decontamination / dismantling – NRA requirements
[14]	Tz. DELCHEVA	Bulgaria	The influence of conditioned waste volume on the selection of the technical decisions and overall decommissioning costs
[18]	S. ABRAMIDZE, et al.	Georgia	The possibility of creating a new low power nuclear facility with slightly enriched nuclear fuel on the basis of decommissioned reactor IRT-M intended for applied purposes
[23]	M. SALGADO, et al.	Cuba	Decontamination activities at the National Institute of Oncology and Radiobiology in Havana
[24]	J. CARLSSON, et al.	Sweden	Preparing for future decommissioning of NPPs in Sweden
[29]	R.A. MECK, et al.	U.S.A.	UNRA basis for control of solid materials
[30]	H. EFRAIMSSON, et al.	Sweden	Swedish regulations on the planning of radiation protection issues before and during decommissioning of nuclear plants
[33]	M. BREZA, et al.	Slovak Republic	Nuclear Power Plant A-1 decommissioning
[34]	T. ÖZDEMİR, et al.	Turkey	A general overview and literature review on clearance criteria
[35]	K. KRAVÁRIK, et al.	Slovak Republic	Advanced CA technologies and remotely controlled manipulators used for decontamination of A-1 NPP Jaslovske Bohunice
[45]	A. SURIPTO, et al.	Indonesia	Present status of research reactor decommissioning
[53]	R. CHARAFOUTDINOV, et al.	Russian Federation	Improvement of safety regulation in management of radioactive waste accumulated in the liquid radioactive waste water basins of PO “Majak” (Ozersk), Siberian Chemical Plant (Seversk) and Mining-Chemical Plant (Zheleznogorsk)
[60]	C. CIUCULESCO	Romania	State of decommissioning process in Romania

<i>No. of paper IAEA-CN-93</i>	<i>Name</i>	<i>Designating Member State / Organization</i>	<i>Title of Paper</i>
[61]	M. KLEIN, et al.	Belgium	Safety aspects in decontamination operations: Lessons learned during the decommissioning of a small PWR reactor
[67]	Y. LOBACH, et al.	Ukraine	Decommissioning strategy of the operating WWER-type units in the Ukraine
[69]	D. BRADBURY (J. WOOD)	U.K. (U.S.A.)	Decontamination and provenance tracking – the key to acceptable recycle of nuclear materials
[73]	J.-J. GRENOUILLET	France	EdF decommissioning programme: A global commitment to safety, environment and cost efficiency of nuclear energy
[74]	O. BANIU, et al.	Romania	Assessment methodology applicable to safe decommissioning of Romanian VVR-S research reactor
[76]	A. GRAF, et al.	Germany	Treatment of rod shaped intermediate active waste
[77]	A. GRAF, et al.	Germany	Treatment of concrete bars from the dismantling of hot cells
[80]	L. MASKALCHUK, et al.	Belarus	The use of sapropels for remediation of soil contaminated by radionuclides in the Republic of Belarus as a result of the Chernobyl catastrophe
[83]	M. BAGHERPOUR	Islamic Republic of Iran	Alternative concepts of Bushehr NPP reactor decommissioning
[85]	D. GRÜNDLER	Germany	Aspects of supervision of the release of nuclear fuel production sites in the Hanau area

AGENCY PUBLICATIONS RELATING TO THE SUBJECT OF THE CONFERENCE

SR No. WS-R-2	Predisposal Management of Radioactive Waste, Including Decommissioning	2000
SG No. WS-G-2.1	Decommissioning of Nuclear Power Plants and Research Reactors	1999
SG No. WS-G-2.4	Decommissioning of Nuclear Fuel Cycle Facilities	2001
TRS No. 389	Radiological Characterization of Shutdown Nuclear Reactors for Decommissioning Purposes	1998
TRS No. 399	Organization and Management of Decommissioning of Large Nuclear Facilities Record Keeping Criteria and Experience for Decommissioning Purposes	2000
IAEA-TECDOC-1133	The Decommissioning of WWER-type Nuclear Power Plants	2000

FORTHCOMING SCIENTIFIC MEETINGS SCHEDULED BY THE IAEA:

2002

19th IAEA Fusion Energy Conference
14-19 October, Lyon, France

International Conference on Safe Decommissioning for Nuclear Activities: Assuring the Safe Termination of Practices Involving Radioactive Materials
14-18 October, Berlin, Germany

International Conference on Advances in Non-Destructive and Destructive Analysis for Environmental Monitoring and Nuclear Forensics
21-23 October, Karlsruhe, Germany

International Symposium on NPP Life Management
4-8 November, Budapest, Hungary

International Symposium on Standards and Codes of Practice in Medical Radiation Dosimetry
25-28 November, Vienna, Austria

International Conference on Safety Culture in Nuclear Installations
2-6 December, Rio de Janeiro, Brazil

International Conference on Issues and Trends in Radioactive Waste Management
9-13 December, Vienna, Austria

2003

International Symposium on Isotope Hydrology & Integrated Water Resources Management
19-23 May, Vienna, Austria

International Conference on Storage of Spent Fuel from Power Reactors
2-6 June, Vienna, Austria

International Conference on Isotopic and Nuclear Analytical Techniques for Health and Environment
10-13 June, Vienna, Austria

International Conference on Innovative Technologies for Nuclear Fuel Cycle and Nuclear Power
23-27 June, Vienna, Austria

International Conference on the Safety of Transport of Radioactive Material
7-11 July, Vienna, Austria

International Symposium on Seismic Evaluation of Existing Nuclear Facilities,
25-29 August, Vienna, Austria

International Conference on National Infrastructures for Radiation Safety
8-12 September, Rabat, Morocco

Scientific Forum
16-17 September, Vienna, Austria

International Symposium on Applications of Gene-based Technologies for Improving Animal
Production and Health in Developing Countries
6-10 October, Vienna, Austria

International Conference on the Protection of the Environment from the Effects of Ionizing Radiation
6-10 October, Stockholm, Sweden

International Symposium on Electricity and the Environment: What have we learned since Helsinki
1991?
October/November, Republic of Korea

International Conference on Research Reactor (Utilization, Safety, Decommissioning, Fuel and Waste
Management)
10-14 November, Santiago, Chile

International Conference on Advances in Information Analysis and its Applications
1-5 December, Vienna, Austria

**For information on forthcoming scientific meetings please consult the IAEA World Atom
website:
<http://www.iaea.org/worldatom/Meetings/>**