

Joint Convention on the Safety of Spent Fuel Management  
and on the Safety of Radioactive Waste Management

Third Review Meeting of the Contracting Parties  
**11 to 20 May 2009, Vienna, Austria**

**SUMMARY REPORT**

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Vienna, 20 May 2009

## **Introduction**

1. Recognizing the importance of the safe management of spent nuclear fuel and radioactive waste, the international community agreed upon the necessity of adopting a convention with the objective of achieving and maintaining a high level of safety worldwide in spent fuel and radioactive waste management: this was the origin of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (the “Joint Convention”), which was adopted on 5 September 1997 and entered into force on 18 June 2001.

2. The objectives of the Joint Convention are:

- (i) To achieve and maintain a high level of safety worldwide in spent fuel and radioactive waste management, through the enhancement of national measures and international cooperation, including, where appropriate, safety-related cooperation;
- (ii) To ensure that during all stages of spent fuel and radioactive waste management there are effective defences against potential hazards so that individuals, society, and the environment are protected from the harmful effects of ionizing radiation now and in the future, in such a way that the needs and aspirations of the present generation are met without compromising the ability of future generations to meet their needs and aspirations; and
- (iii) To prevent accidents with radiological consequences and to mitigate their consequences should they occur during any stage of spent fuel or radioactive waste management.

3. To deliver these objectives, the Joint Convention adopted a review process. The Joint Convention requires each Contracting Party to:

- (i) Submit in advance to all other Contracting Parties a National Report describing how it implements the obligations of the Joint Convention;
- (ii) Seek clarification on the National Reports of other Contracting Parties through a system of written questions and answers; and
- (iii) Present and discuss its National Report during a Review Meeting comprising Country Group sessions and Plenary Sessions.

The Joint Convention specifies that the interval between Review Meetings should not exceed three years. Documents annexed to the Joint Convention provide guidance on the form and structure of the National Reports and on the way to conduct Review Meetings.

4. The Third Review Meeting of the Contracting Parties pursuant to Article 30 of the Joint Convention was held at the Headquarters of the International Atomic Energy Agency (IAEA),

which is the depositary and Secretariat for the Joint Convention, from 11 to 20 May 2009. The President of the Review Meeting is Mr Kunihisa Soda, Commissioner of the Nuclear Safety Commission of Japan. The Vice-Presidents are Mr László Koblinger, Hungarian Atomic Energy Authority, and Mr Frank Marcinowski, United States Department of Energy. The General Committee of the Meeting comprises the President, the two Vice-Presidents, and the six Country Group Chairpersons, namely Mr Andy Hall, United Kingdom; Mr Peter Brennecke, Germany; Mr Doug Metcalfe, Canada; Mr Kaare Ulbak, Denmark; Ms Merle Lust, Estonia; and Mr Jean-Rémi Gouze, France.

5. Forty-five Contracting Parties participated in the Review Meeting, namely: Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Estonia, Euratom, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea (Republic of), Latvia, Lithuania, Luxembourg, Morocco, Netherlands, Nigeria, Norway, Poland, Romania, Russian Federation, Senegal, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Tajikistan, Ukraine, United Kingdom and United States of America. Among these five Contracting Parties participated for the first time: China, Nigeria, Tajikistan, Senegal and South Africa. Three Contracting Parties did not participate in the Review Meeting: Kyrgyzstan, Uruguay and Uzbekistan.

6. Senegal, Kyrgyzstan and Uzbekistan had not submitted a National Report. Although Uruguay did not participate in the Meeting, it had submitted a National Report, which, with its consent, was reviewed by the members of the Country Group. The prepared Rapporteur's Report was sent to the National Contact Point of Uruguay, and agreed to by them.

7. There were no late ratifiers as defined in Rule 2 of the Rules of Procedure and Financial Rules (INFCIRC/602/Rev.2).

8. The Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD) and the European Bank for Reconstruction and Development (EBRD) were present as observers, as agreed at the Organizational Meeting.

### **General Observations**

9. All Contracting Parties present recognized that safety of spent fuel and radioactive waste management is a crucial and difficult topic, and that there are considerable areas for improvement. All Contracting Parties present reaffirmed their commitment to improve the situation.

10. Throughout the Third Review Meeting it was observed that the review process is maturing well and more constructive exchanges and more knowledge sharing took place than at previous Review Meetings.

11. Despite a large diversity of national situations, all Contracting Parties present shared the view that the Third Review Meeting showed that progress has been made both in building and maintaining legislative and regulatory framework and in practical implementation, since the Second Review Meeting.

12. The Third Review Meeting was held in a time when several countries are considering launching a national nuclear power programme. The present Review Meeting strongly recommends that the safety of spent fuel and radioactive waste management be taken into account from the very beginning of such considerations.

13. Areas for which the need for further work was identified at the Second Review Meeting have been addressed by the Contracting Parties and reflected in their National Reports and oral presentations during the Third Review Meeting.

14. During the Third Review Meeting, the Contracting Parties present showed good practices in many areas including:

- i) National strategies and policies for radioactive waste management and for spent fuel management where applicable;
- ii) Legal and regulatory frameworks for radioactive waste management and spent fuel management where applicable; and
- iii) International cooperation and public participation.

15. Although significant progress has been made since the last Review Meeting, much still needs to be done to meet the following challenges:

- i) The implementation of national policies for the long-term management of spent fuel, including disposal of high level waste and/or spent fuel;
- ii) Siting, construction and operation of spent fuel and radioactive waste disposal facilities;
- iii) Management of legacy wastes;
- iv) Monitoring of disused sealed sources and recovery of orphan sources;
- v) Knowledge management and human resources; and
- vi) Financial resources for liabilities.

### **Policy and technical highlights from the Third Review Meeting**

The main issues on which progress was noted are as follows.

#### *Legislative and Regulatory Framework*

16. Many Contracting Parties have completed and updated their legislative and regulatory framework, although implementation needs further efforts in some Contracting Parties.

17. Some Contracting Parties are developing or have established clearance systems.

### Policy

18. All Contracting Parties present are committed to address waste management and spent fuel management, if applicable, in a comprehensive manner. Many Contracting Parties have already developed, or are currently developing, spent fuel and waste management strategies based on increasingly comprehensive inventories, including spent fuel and waste arising, or to arise, from decommissioning.

19. Some Contracting Parties reported on progress in siting, construction and operation of geological disposal facilities.

20. The subject of regional repositories was mentioned by several Contracting Parties with small nuclear programmes or with limited waste management programmes. However no real practical progress has been achieved up to now. It is suggested that further cooperation between Contracting Parties would facilitate progress in this important issue.

21. Some Contracting Parties included naturally occurring radioactive material (NORM), which does not originate from the nuclear fuel cycle, in their National Reports.

### Decommissioning

22. Many Contracting Parties, especially those having nuclear power plants, have established funding schemes for decommissioning. However, for some Contracting Parties the issue of funding for decommissioning of research reactors remains to be solved.

23. A number of Contracting Parties reported on notable progress in decommissioning of facilities.

### Disused Sealed Sources

24. Some progress has been made since the Second Review Meeting in the management of disused sealed sources and orphan sources. Many Contracting Parties have started implementation of tracking systems and national registries.

### Past Practices

25. Many Contracting Parties reported on progress in the areas of remediation of sites and the management of legacy waste.

### Knowledge Management

26. Preservation and transfer of knowledge, and of corporate memory and experience, concerning the safety of spent fuel management and the safety of radioactive waste management through education and training, and through recruitment of new staff were recognized as being of crucial importance for both operators and regulatory bodies.

27. Building competence in the safety of spent fuel management and the safety of radioactive waste management is also crucial for countries considering launching a nuclear power programme.

#### Stakeholder involvement

28. All Contracting Parties present agreed that decisions on the policy of radioactive waste management and spent fuel management, and on the siting of radioactive waste management and spent fuel management facilities, should be made with stakeholder involvement.

29. In particular, recognizing that the development of a radioactive waste disposal facility implies societal acceptance, Contracting Parties stress the utmost importance of involving stakeholders and affected communities, from the beginning, in the process of developing such facilities.

#### International Cooperation

30. Many Contracting Parties see the benefits and importance of enhancing international cooperation through the exchange of information, experiences and technology. In particular, needs for sharing knowledge and assistance were emphasized by Contracting Parties with limited radioactive waste management and research programmes. Many Contracting Parties reported on their use of the IAEA Safety Standards and on their experiences with the Integrated Regulatory Review Service (IRRS) of the IAEA; other Contracting Parties plan to undergo or to request IRRS missions in the future.

31. The repatriation of research reactor spent fuel was also identified as a good practice.

#### **Improvements for the future Review Meetings**

32. Seven topics were discussed by the Open-Ended Working Group, established at the opening plenary session and chaired by Mr Frank Marcinowski:

- (1) Policy Makers Topical Meeting;
- (2) Data Presentation Tool for JC National Reports Based on Net-Enabled Waste Management Database (NEWMDB);
- (3) Improvements in Officers' Selection;
- (4) Joint Convention Leadership;
- (5) Knowledge transfer and continuity between Review Meetings;
- (6) Improve interaction between Review Meetings; and
- (7) Amendments to the Duties of the Country Group Vice-Chair.

33. Improvements for future Review Meetings were identified through the deliberations of the Open-Ended Working Group and were approved at the Plenary Session of the Review Meeting.

## Conclusions

34. The participants in the Third Review Meeting noted the moderate increase in number of Contracting Parties, as compared to the Second Review Meeting. The Contracting Parties present suggested that efforts should be increased to accelerate this trend in the future.

35. The review process is maturing well and constructive exchanges and knowledge sharing took place in an open and frank manner.

36. The Third Review Meeting showed that many Contracting Parties had initiated new actions or were enhancing existing actions to improve the safe management of spent fuel and radioactive waste. However, each Contracting Party has challenges requiring further action or continuing implementation of recently initiated activities.

37. The three trends above indicate that the Fourth Review Meeting, to be held in May 2012, will contribute further to achieving and maintaining a high level of safety worldwide in spent fuel and radioactive waste management. In order to fulfil this goal, the actions of the Contracting Parties and as a consequence their reports to the next Review Meeting should include the following issues:

- Development of a comprehensive regulatory framework;
- The effective independence of the regulatory body;
- Implementation of the strategies with visible milestones;
- Funding to secure waste management;
- Education and recruitment of competent staff and employees;
- Geological repositories for high level waste.