



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

**Eighth Review Meeting of the Contracting Parties**

**17 to 28 March 2025, Vienna, Austria**

**SUMMARY REPORT**

Mr. Jean-Luc Lachaume, Acting President and Vice-President  
Ms. Erica Bickford, Vice-President  
Vienna, March 2025

## Contents

A	Introduction .....	3
B	General Observations.....	5
C	Response to overarching issues identified at the Seventh Review Meeting .....	6
D	Other Highlights of the Country Group Discussions .....	9
E	Measures to Improve Safety .....	9
F	Good Practices, Areas of Good Performance, Challenges and Suggestions .....	10
G	Overarching Issues .....	12
H	Outcome of the Open-Ended Working Group (OEWG) .....	14
I	Topical session.....	15
J	Conclusions .....	16
	Annex 1 .....	18
	Annex 2 .....	19

## A Introduction

1. The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, the “Joint Convention”, was adopted on 5 September 1997 and entered into force on 18 June 2001.
2. The Convention was adopted bearing in mind the importance of ensuring sound practices for the safety of spent fuel and radioactive waste management and desiring to promote an effective nuclear safety culture worldwide. The importance of international cooperation in enhancing safety through bilateral and multilateral mechanisms through the convention was affirmed and the importance of informing the public on safety related issues regarding the safety of spent fuel and radioactive waste management was recognized. The importance of the safety principles underlying the international standards on radiation safety, waste management safety and transport safety was recognized. The objectives of the Joint Convention are contained in Article 1.
3. To achieve these objectives, the Joint Convention adopted a peer review process that involves each Contracting Party at intervals not exceeding three years 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.
  - (iii) Present and discuss its National Report during a Review Meeting comprising Country Group sessions and Plenary Sessions.
4. Article 34 of the Joint Convention requires the Contracting Parties to adopt, by consensus, and make available to the public a document addressing issues discussed and conclusions reached during meetings of the Contracting Parties. The objective of this summary report is to summarize the outcomes of the Eighth Review Meeting of the Joint Convention in fulfillment of this obligation.
5. To date, there are 90 Contracting Parties to the Joint Convention. The Eighth Review Meeting of the Contracting Parties pursuant to Article 30 of the Joint Convention was held from 17 to 28 March 2025 at the Headquarters of the International Atomic Energy Agency (IAEA) in Vienna, which is the depositary and Secretariat for the Joint Convention.
6. Due to unavailability of the President Mr Ramzi Jammal, from Canada, he designated the Vice-President Mr Jean-Luc Lachaume, from France, to act as President for the Eighth Review Meeting. The other Vice-President was Ms Erica Bickford, from the United States of America.
7. The General Committee of the Review Meeting comprised the Acting President, the Vice-President and the eight Country Group Chairpersons, namely Mr Francisco Miguel Castejón Magaña (Spain), Ms Merle Lust (EURATOM), Ms Saffron Price-

Finnerty (UK), Mr Magnus Westerlind (Sweden), Ms Marina Nepeypivo (Russian Federation), Ms Annatina Mueller-Germana (Switzerland), Ms Qhamkile Boyede (South Africa) and Mr Mikulas Turner (Slovakia).

8. Seventy-seven (77) of the 90 Contracting Parties attended the Review Meeting, namely: Albania, Argentina, Armenia, Australia, Austria, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Canada, Chile, China, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Ghana, Greece, Hungary, Iceland, Indonesia, Iraq, Ireland, Italy, Japan, Jordan, Kazakhstan, Korea (Republic of), Latvia, Lithuania, Luxembourg, Malta, Mexico, Montenegro, Morocco, Netherlands (Kingdom of the), North Macedonia, Norway, Oman, Paraguay, Peru, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Rwanda, Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Syrian Arab Republic, Thailand, Türkiye, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay, Uzbekistan, Viet Nam, Zimbabwe and Euratom.
9. Thirteen (13) Contracting Parties did not attend the Review Meeting, namely, Bolivia, Congo, Eritrea, Gabon, Kyrgyzstan, Lesotho, Madagascar, Malawi, Mauritania, Mauritius, Niger, Nigeria and Tajikistan.
10. There were no late ratifiers as defined in Rule 2 of the Rules of Procedure and Financial Rules (INFCIRC/602/Rev.7).
11. No intergovernmental organization requested to attend the Eighth Review Meeting as an observer.
12. National Reports were provided by 88 Contracting Parties. A total of 77 National Reports were posted by the required date and 11 were posted late. No National Reports were submitted by Gabon and Madagascar.
13. The Contracting Parties welcomed the following two new Contracting Parties; Iraq and Türkiye that had joined since the Seventh Review Meeting. It was noted however that many more IAEA Member States have radioactive waste and spent fuel and are not yet Contracting Parties to the Joint Convention. Contracting Parties agreed to promote and facilitate accession to the Joint Convention.
14. Several Contracting Parties have agreed to make their National Reports publicly available on the national websites. Others informed that they were planning to make their National Reports and questions and answers available on the public Joint Convention web page. All Contracting Parties were encouraged to take into account the voluntary practices for making documents public as described in the annex to the guidelines (INFCIRC/604/Rev.5). Documents voluntarily submitted to the Secretariat for the purpose of publication will be made available on the [Joint Convention public website](#) after the end of the Review Meeting.
15. A total of 5239 written questions / comments were submitted by 62 Contracting Parties on all of the national reports and 5113 responses were provided. Six

Contracting Parties did not respond to any written questions and one did not respond to all of the questions posed.

16. Sixteen Contracting Parties did not make national presentations at the Country Group sessions. Nevertheless, the national reports of some of these Contracting Parties were discussed in Country Group sessions, subject to the consent of members of the Country Groups and the consent of those Contracting Parties. Rapporteurs' reports were produced for these Contracting Parties, with the aim of providing feedback to them and encourage their participation in future Review Meetings.

## B General Observations

17. The Joint Convention process of reporting and peer review continues to highlight progress and remaining challenges. It was evident at the Eighth Review Meeting that participating Contracting Parties are working towards enhancing the level of safety in the management of radioactive waste and spent fuel.
18. Contracting Parties reported good progress and significant accomplishments in implementing their national programmes. Several observations were made including:
  - (i) Whilst many Contracting Parties had established and updated national policies and strategies for the management of radioactive waste and spent fuel, funding, political commitment and public acceptance remain challenging in some cases. The setting of milestones for strategy implementation has proved useful.
  - (ii) Further progress in the planning, development and, licensing of disposal facilities for high level waste and spent fuel was reported by a few Contracting Parties and some other Contracting Parties were developing underground laboratories including as a precursor to developing geological disposal facilities.
  - (iii) Contracting Parties continued to enhance engagement, transparency and openness in stakeholder interaction. The Review Meeting recognized that more inclusive and effective approaches are being developed and used in this regard.
  - (iv) Contracting Parties reported on the funding of radioactive waste and spent fuel management programmes, where it was recognized that early establishment of funding mechanisms was important. Equally the need for accurate estimation of liabilities at various stages of project development and implementation was recognized.
  - (v) Return of disused sealed sources to suppliers is an effective management mechanism but it is recognized that not all sources can be returned to the suppliers. In such cases disposal endpoints are not always available and sources are stored safely pending disposal options becoming available. Recycling and re-use of disused sealed sources was being adopted as a preferred management approach by some Contracting Parties. Borehole disposal and multinational approaches for the disposal of disused sealed sources are being considered by several Contracting Parties.

(vi) Several Contracting Parties have developed human resource development strategies for regulatory bodies, technical support organisations and operators. These involve knowledge management, qualified staff and talent retention, and capacity building initiatives.

(vii) The value of in-depth expert peer reviews was recognized by Contracting Parties. The increasing number of reviews was nevertheless recognized to place a demand on all parties, particularly regulatory bodies.

(viii) Considering the potential of AI and other new technologies to optimize regulatory and operational processes was recognized as important, and approaches in this regard were being developed by some Contracting Parties.

19. Contracting Parties provided presentations that demonstrated the progress that had been made on their national programmes.

20. The discussions in the Country Group sessions were open, constructive and of high technical level. The Contracting Parties are encouraged to present challenging viewpoints to enhance the robustness of the peer review process.

21. There was a general sense that the application of the concept of Good Practice was not uniform across the Country Groups and discussions took place on the efforts to improve consistency.

## C Response to overarching issues identified at the Seventh Review Meeting

22. The Contracting Parties had previously agreed that National Reports to the Eighth Review Meeting would include reporting, as relevant, on the following overarching issues:

(i) Competence and staffing linked to timetable for spent fuel and radioactive waste management programmes.

(ii) Inclusive public engagement on radioactive waste management and on spent fuel management programmes.

(iii) Ageing management of packages and facilities for radioactive waste and spent fuel, considering extended storage periods.

(iv) Long term management of disused sealed sources, including sustainable options for regional as well as multinational solutions.

### C.1 Competence and staffing linked to timetable for spent fuel and radioactive waste management programmes

23. Competence building strategies have been developed and put in place by many Contracting Parties. These are often funded at government level, but operator organizations also have such strategies in place, often required by conditions of

authorization. Some Contracting Parties reported successful joint initiatives by operator, regulator and technical support organizations.

24. The implementation of competence building strategies should be linked to the evolution of radioactive waste and spent fuel management programmes but adapting such strategies to significant changes in the programmes can be challenging. Uncertainties and delays in delivery of spent fuel and radioactive waste management programmes create reluctance, particularly of younger professionals seeking a career in the required disciplines.
25. Quantifying the human resource needs associated with major activities such as decommissioning nuclear facilities, developing geological disposal facilities or management of radioactive waste and spent fuel associated with new nuclear programmes can be challenging. Intercomparisons with radioactive waste and spent fuel management programmes of a similar nature in other Contracting Parties have been found to be of value.
26. Some Contracting Parties with smaller radioactive waste and spent fuel management programmes have experienced difficulties in sustaining training programmes. Collaborative training programmes between Contracting Parties are seen to be of value in this regard.
27. International, regional and national organizations offer some training, tutoring and scientific visit opportunities in the safety of radioactive waste and spent fuel management for the staff of operators, regulatory bodies and technical support organizations. These are seen to be of great value.
28. Some Contracting Parties have found that offering incentives, such as improved remuneration packages, to be of value in maintaining competence. Deferred retirement has also been adopted as a way to maintain human resource requirements.

## C.2 Inclusive public engagement on radioactive waste management and on spent fuel management programmes

29. Most Contracting Parties have formalized and put in place public engagement processes. These are often mandated by Environmental Impact Assessment, regulatory or other legally required processes.
30. Extensive use is being made of digital media for the dissemination of information in the public domain. This mechanism is used by operator organizations, regulatory bodies and governments.
31. Regulatory bodies, involved governmental bodies and facility operators often have public engagement forums in place. Some of them also arrange site visits and organize open days.
32. Public engagement activities were reported to intensify during periods of site selection for facilities, during periods of transition from development to operation.

For some Contracting Parties, public engagement also intensified during periods when legislation is being developed.

33. Innovative approaches to public engagement have been developed and put in place by some Contracting Parties.
34. Despite progress in the field of public engagement, public acceptance of radioactive waste and spent fuel management facilities and activities remains one of the major challenges for many Contracting Parties.

### C.3 Ageing management of packages and facilities for radioactive waste and spent fuel, considering extended storage periods

35. The importance of ageing management was explicitly recognized by most Contracting Parties and formalized programmes are generally in place. Ageing management programmes were often a condition of authorization, together with periodic safety reviews.
36. Improvements to safety assessment approaches and techniques to identify potential degradation mechanisms and processes that could inform inspection programmes were reported.
37. Research on the degradation of spent fuel was being undertaken by a number of Contracting Parties.
38. The planning and construction of new storage facilities was reported by some Contracting Parties due to the ageing of older facilities.
39. The need for consideration of ageing during the operational period in underground disposal facilities was reported by one Contracting Party, a topic that may become of increasing interest as more underground facilities are developed and come into operation.

### C.4 Long term management of disused sealed sources, including sustainable options for regional as well as multinational solutions

40. The approach to long term management of disused sealed sources reported by most Contracting Parties was to return disused sources to the supplier. If this option was not possible, sources would be stored pending disposal. In some cases, a disposal option was available locally, but in the majority of Contracting Parties this was not the case. It was noted that some Contracting Parties have successfully implemented reuse and recycle strategies for disused sealed sources.
41. The tracking and controlling of disused sealed sources was recognized to be of importance based on a cradle to grave control approach. Different approaches were reported, but most aimed to ensure that once a source was taken out of use its status must be known. Some Contracting Parties have developed centralised storage facilities to which sources must be transferred within a prescribed timeframe.



42. Ensuring that all disused sealed sources were kept under control was recognized to be of high importance and some Contracting Parties were updating plans to search for and recover orphaned sources.
43. In terms of disposal, a number of Contracting Parties reported that the intended disposal option was geological disposal, a few Contracting Parties reported they were considering borehole disposal as an option. Some Contracting Parties also reported progress in using near surface disposal solutions. A few Contracting Parties mentioned the possibility of multinational solutions.

## D Other Highlights of the Country Group Discussions

44. In the context of licensing process, some Contracting Parties highlighted their regulatory approach to address site evaluation and design phases in the development of waste disposal facilities.
45. Funding regimes for disused sealed sources and regulatory funding in the event of phase out and decommissioning of licensed facilities needed further consideration.
46. Estimating waste volumes and types for new build and new technologies such as small modular reactors, new medical and fusion facilities was a topic that some Contracting Parties were starting to consider.
47. Some Contracting Parties made statements on one Contracting Party's jurisdiction over spent fuel or waste management in one facility and on the reporting on this facility by another Contracting Party, which stated that it has jurisdiction over this facility.
48. Some Contracting Parties expressed concerns that armed conflicts and their potential effects on radioactive waste and spent fuel management may affect the capacity of concerned Contracting Parties to maintain levels of safety, effective defenses against potential hazards and the prevention of accidents and reminded the importance of achieving the overall objectives set out in article 1 of the Joint Convention.
49. One Contracting Party informed that it could only partially fulfill its commitments and responsibilities under the Joint Convention, including Article 21 concerning the responsibility of the license holder, with respect to ensuring safety of spent fuel and radioactive waste management in some installations in the territory out of access due to the ongoing armed conflict in the country.

## E Measures to Improve Safety

50. Contracting Parties reported on specific plans to improve safety. They differ depending on the scope of the national programme. Some of the topics that were discussed are highlighted below.
51. A number of Contracting Parties reported further developments to their national policies and strategies for the management of radioactive waste and spent fuel aimed at improving safety. Specific examples were provided for extending facilities to

accommodate increasing amounts of waste and longer timeframes for storage, definitive plans to implement a disposal programme and harmonizing national control.

52. Developments in the area of predisposal radioactive waste management were reported by Contracting Parties. Improved arrangements were noted for the management of spent fuel, establishment of radioactive waste research laboratories, improved techniques for disused sealed sources conditioning for long term storage and disposal, as well as novel techniques for waste processing. Improved clearance mechanisms and approaches to waste acceptance criteria for the radioactive waste management in the absence of disposal facility development were also reported.
53. Some Contracting Parties mentioned progress was being made in finding disposal solutions for intermediate level waste such as radium bearing waste and contaminated graphite.
54. Other improvements had been made in developing research programmes for underground laboratories and linking the outcomes to safety assessment and the development of safety cases for geological disposal. Improved flow and mass transport modelling approaches were also reported.
55. The decommissioning of large nuclear facilities in particular nuclear power plants is receiving increasing attention. Planning for such activities, building capacity, provision of waste management and disposal options are all receiving attention as is the use of clearance mechanisms and dealing with large quantities of very low level waste.
56. A reported measure to improve safety was that of international peer reviews focused on the safety of radioactive waste, disused sealed sources and spent fuel management. Contracting parties pointed out the value of in-depth review by independent teams of experts and the recommendations arising from such reviews. The reviews both recognized progress in implementing comprehensive cradle to grave programmes covering all waste types and areas requiring improvement. Follow up reviews were seen as valuable to monitor progress.

## F Good Practices, Areas of Good Performance, Challenges and Suggestions

57. According to the Joint Convention Guidelines (Annex 2 of INFCIRC 603/Rev.10), a Good Practice is defined as being *“a new or revised practice, policy or program that makes a significant contribution to the safety of radioactive waste and spent fuel management. A Good Practice is one that has been tried and proven by at least one Contracting Party but has not been widely implemented by other Contracting Parties; and is applicable to other Contracting Parties with similar programs”*.
58. Contracting Parties in the Country Group sessions identified a total number of 21 Good Practices.
  - (i) Adopting the WHO “health” definition in the codes and standards to broaden their scope.

- (ii) Participative structuring of stakeholder engagement and decision-making processes.
- (iii) Industrial scale implementation of plasma incineration for radioactive waste.
- (iv) Identification and remediation of radium contaminated legacy sites.
- (v) Immediate dismantling followed by processing of radioactive waste and its disposal and sharing related experience internationally.
- (vi) Stakeholder engagement and benefit sharing mechanism in developing the waste disposal facility.
- (vii) Adaptation of laser decontamination technology to radioactive contamination.
- (viii) Advanced engineering of the tunnel boring machine for construction of deep geological underground laboratory.
- (ix) Innovative measures in the recycling and reuse of disused sealed sources.
- (x) Minimisation of waste volume by consolidation of legacy disused sealed sources.
- (xi) Application of high intensity focused ultrasound and microwave technology in decontamination and radioactive waste treatment.
- (xii) Trialing the regulation and use of AI by licensees in safety related activities.
- (xiii) Establishment of national skills development infrastructure.
- (xiv) Implementation of ISO-certified Integrated Management Systems in the regulatory body of CPs with small inventories.
- (xv) Assistance provided to other Contracting Parties for long term accident impact remediation.
- (xvi) New initiative for public engagement in geological disposal development.
- (xvii) Risk assessment tool for dry storage cask design.
- (xviii) Use of AI to optimize spent fuel handling.
- (xix) Collaborative approach to waste led design in new nuclear technologies.
- (xx) Methodology for audit of regulatory body inspection processes.
- (xxi) Approach to capacity building for new build programmes.

59. In addition to the Good Practices, the Contracting Parties in the Country Group sessions identified 208 Areas of Good Performance defined as *“An Area of Good Performance is a new or enhanced practice, policy or program for a Contracting Party*

*is a significant accomplishment for that Contracting Party, although it may have been undertaken by other Contracting Parties”.*

60. The Contracting Parties in the Country Group sessions identified 294 Challenges defined as *“A Challenge is a difficult issue for the Contracting Party. It may be a demanding undertaking (beyond day-to-day activities); or a weakness that needs to be remediated.”* and 65 Suggestions defined as *“A Suggestion refers to an area for improvement. It is an action needed to improve the implementation of the obligations of the Convention”.*
61. The written report of the President consolidating the Good Practices recognized in the Country Groups has been made available to Contracting Parties.
62. The oral report of the President on Good Practices summarizing the written report was presented at the Plenary followed by constructive discussions. Some Contracting Parties expressed the opinion that there was a disproportionate amount of time spent on discussion of Good Practices at the expense of discussion on Challenges and Suggestions.
63. The report of the President on Good Practices included recommendations to either limit the number of self-identified Good Practices or to consolidate Good Practices and Areas of Good Performance in one section of the National Report without differentiation and to make use of the peer review process to identify Good Practices and Areas of Good Performance and to provide feedback on the effectiveness of the Good Practices recognized by the Country Groups.
64. Contracting Parties expressed the view that work on improving the identification, including a possible limitation of the self-identification of Good Practices must continue and make the process of identification more robust and consistent. This could be achieved through a working group.

## **G** Overarching Issues

65. The President’s Report of the Sixth Review Meeting defines an overarching issue as being *“topics that pose challenges for multiple Contracting Parties and may benefit from increased attention at future review meetings”.*
66. During the Eighth Review Meeting, the Contracting Parties identified several overarching issues throughout the Country Group discussions at the first week. Some of these issues had already been identified in previous Review Meetings and continue to be overarching issues. These were presented at the closing plenary by the Rapporteurs as part of their oral reports.
67. Stemming from the Rapporteurs’ Reports, the overarching issues were consolidated into the following 14 which were discussed by Contracting Parties in the plenary:
  - (i) Safe management of waste streams from new technologies.
  - (ii) Disposal of radioactive waste and spent fuel.

- (iii) Emergency preparedness: response to natural and human-made events.
- (iv) Artificial intelligence and other digital technologies.
- (v) Ensuring that the regulatory and legal frameworks are fit for purpose.
- (vi) Financial, human resources and knowledge management for sustainable radioactive waste and spent fuel management.
- (vii) Funding for management of radioactive waste and spent fuel.
- (viii) Public engagement in the safe management of radioactive waste, disused sealed sources, and spent fuel.
- (ix) Long term planning and implementation for disposal.
- (x) Monitoring the condition of spent fuel, radioactive waste and disused sealed sources in long-term storage.
- (xi) End-States for the decommissioning and remediation of Nuclear and Legacy Sites.
- (xii) Implementation of waste hierarchy.
- (xiii) New entities entering the nuclear sector.
- (xiv) Bi- and multilateral cooperation on waste at a national/ international levels.

68. The Contracting Parties are encouraged to address the following overarching issues, as appropriate, in the National Reports for the Ninth Review Meeting:

**(i) Response to natural and human-made events**

Emergency preparedness is an essential part of the programme of safe management of spent fuel and radioactive waste. Loss of control can be a result of natural disasters, accidents or conflicts within the Contracting Parties or in a neighbouring country, or military actions, or a pandemic. Emergency preparedness is a fundamental requirement under Article 25 of the Joint Convention.

**(ii) Financial resources, human resources and knowledge management for sustainable radioactive waste and spent fuel management**

The requirement for sufficient financial and human resources for delivering sustainable radioactive waste and spent fuel management programmes in both operators and regulatory bodies is identified as an ongoing challenge for some Contracting Parties. The need for knowledge management over periods of time that span multiple generations presents an additional complexity.

### **(iii) Safe management of waste streams from new technologies**

As new applications in the medical, research, industrial and nuclear sectors are being proposed or are under consideration, there needs to be a proactive consideration to address the waste streams that may arise from these activities.

### **(iv) Public engagement in the safe management of radioactive waste, disused sealed sources and spent fuel**

Inclusive public engagement is seen as a critical step to building trust. There is a need to move beyond the dissemination of information to a more collaborative model, with active involvement of the public in regulatory and operator decision making process.

### **(v) Monitoring the condition of spent fuel, radioactive waste and disused sealed sources in long-term storage**

Many Contracting Parties are now adopting a strategy to extend storage of spent fuel, disused sealed sources and radioactive waste. There are ageing management programmes in place for the packages, but there is limited data and information on the long-term ageing management and behaviour of the spent fuel. Prior to disposal, these data and information will inform the final treatment and conditioning of the spent fuel, disused sealed sources and radioactive waste.

69. It was suggested that the use of AI for the safety of radioactive waste and spent fuel management and multilateral cooperation, be considered for the Topical Session at the Ninth Review Meeting. Subject to the agreement of the Contracting Parties at the Organizational Meeting of the Ninth Review Meeting.

## **H Outcome of the Open-Ended Working Group (OEWG)**

70. Pursuant to the agreement at the Opening Plenary session, an Open-Ended Working Group (OEWG) was established.

71. The OEWG was chaired by Acting President Mr. Jean-Luc Lachaume. OEWG sessions were held over three evenings from 18 to 20 March 2025, following closure of the daily Country Group sessions.

72. Seven proposals were submitted by the Contracting Parties and discussed by the OEWG.

73. The Chairperson reported that discussions during the OEWG had been very constructive and a report on deliberations and the recommendations of the OEWG was provided to the Contracting Parties for their considerations at the Closing Plenary session, as document JC/RM8/OEWG/02/Rev2 and is attached to the President's Report.

74. The Contracting Parties decided the following:

- (i) To adopt the proposed amendment to INFCIRC/603/Rev.10 set out in Annex 1 to this report.
- (ii) Before the next Organizational Meeting, the Secretariat will make an evaluation of the impact of different thresholds for allocating sessions times based on the size of national programmes.
- (iii) To establish a Working Group, with the objective to discuss proposals to reduce the burden on officers and enhance the efficiency of the Joint Convention peer review process, and that:
  - a. The Chair and Vice-Chair for the Working Group would be Vice-President Jean-Luc Lachaume and Vice-President Erica Bickford, respectively.
  - b. Two meetings would be held as follows: (1) the week of 13 October 2025 (virtual) and (2) the week of 6 July 2026 (hybrid).
  - c. Contracting Parties should provide their comments on the Terms of Reference of the Working Group within three months after the Review Meeting. Following this period, the Secretariat would circulate the revised Terms of Reference for their formal approval.

75. Following the agreement on the establishment of the Working Group, the Chairperson recommended to hold an Extraordinary Meeting prior to the Organizational Meeting for the Ninth Review Meeting to consider the proposals to be developed by the Working Group. Consensus was not reached on the recommendation.

## I Topical session

76. As agreed to at the Organizational Meeting for the Eighth Review Cycle, a half-day Topical Session was held on knowledge management related to long term management of disused sealed sources, radioactive waste and spent fuel. The aim of the Topical Session was to share the experience of Contracting Parties and lessons learned.

77. Ms Erica Bickford, Vice-President of the Eighth Review Meeting, served as Chairperson for the session.

78. During the session, four Contracting Parties made presentations concerning knowledge management related to long term management of a range of activities namely: management of legacy uranium mine sites, managing and disposal of radioactive sources and disposing high level waste and spent fuel.

79. Key themes that emerged during the presentations and discussion included:

- (i) Recognition of the very long timeframes for managing radioactive waste and remediation of legacy sites. The importance of having a clear understanding of the need for development and implementation of effective knowledge management as part of the overall management system.
- (ii) All presentations emphasised the importance of developing skills, regular review and maintenance of an overview of skills requirements, staff training and maintenance of expertise for long timeframes, correlating to the long term management of radioactive waste and disused sealed sources. These aspects need to be embedded in the management system. The mapping of staff knowledge and skills has proved an effective tool. In terms of knowledge retention, mentoring of younger professionals by experienced staff is valuable as is formal measurement and testing of knowledge and skills acquisition. Engaging new staff in periodic safety review processes was recognized as valuable for knowledge acquisition and transfer.
- (iii) Ensuring adequate documentation and long term preservation of knowledge (e.g. applying tools such as databases) that will facilitate decision making of regulators, operators and other stakeholders in the long term. It was noted that predicting data and information can be important. Post closure knowledge retention is also of high importance. Approaches to archiving have to be carefully considered both in terms of what to store and for how long. The safety case can inform on the importance of knowledge and data to be preserved.
- (iv) In the question and answer sessions for the panels, there was interest from Contracting Parties on how to ensure durability of knowledge management programmes over time; the role of knowledge management in communicating with the public around long term legacy waste remediation sites and radioactive waste storage sites; methods for developing and evaluating staff competencies; effective processes for tacit knowledge transfer from staff retirements and attrition; and intellectual property considerations for maintaining documentation for facility licensing.
- (v) All presentations encouraged knowledge sharing to facilitate safe long-term management of disused sealed sources, radioactive waste and spent fuel in line with international safety standards and recommendations.

80. A summary of the Topical Session is provided as Annex 2 to this Summary Report.

## J Conclusions

81. The review process established by the Joint Convention is an essential tool to identify progress in implementing radioactive waste and spent fuel management programmes and new and remaining challenges. The Eighth Review Meeting showed that the international safety community is continuing to work towards improving safety in radioactive waste and spent fuel management.



82. A substantial number of Good Practices, Areas of Good Performances as well as Challenges and Suggestions were identified at the Eighth Review Meeting. With regard to the application of Good Practices, however, there was a general sense that the application of the concept of Good Practice was not uniform across the Country Groups and discussions took place on the efforts to improve consistency.
83. Since the last Review Meeting in 2022, the number of Contracting Parties to the Joint Convention has increased with the recent addition of Iraq and Türkiye bringing the number of Contracting Parties to 90. A significant number of IAEA Member States are not yet Contracting Parties to the Joint Convention. The Review Meeting identified the need for Contracting Parties and the Secretariat to increase efforts to encourage States who are not yet Contracting Parties to the Joint Convention to become party to the Convention.
84. The Review Meeting identified the need to further encourage and promote the full participation of Contracting Parties in future review cycles, including submission of National Reports. Constructive discussions and sharing of knowledge took place in a frank and open manner, and Contracting Parties recognized the importance of the Joint Convention peer review process. The review process of the Joint Convention requires full and active engagement by all Contracting Parties and measures to increase further active participation should be discussed and encouraged.
85. The Eighth Review Meeting showed again that international peer review missions are being widely implemented and are regarded as an effective process to strengthen the national framework and infrastructure for nuclear and radiation safety related to the management of radioactive waste and spent fuel. Contracting Parties acknowledged the importance of hosting such missions on a regular basis and were encouraged by some Contracting Parties to make the results of these missions publicly available.
86. During the Eighth Review Meeting, the Contracting Parties identified several overarching issues throughout the Country Group discussions at the first week. Some of these issues had already been identified in previous Review Meetings and continue to be overarching issues. The Contracting Parties are encouraged to address the overarching issues as described in para 68, as appropriate, in the National Reports for the Ninth Review Meeting.
87. The Contracting Parties agreed to hold the Ninth Review Meeting of the Contracting Parties at the IAEA Headquarters in Vienna, Austria, from 27 March to 7 April 2028 and the Organizational Meeting from 17 to 18 March 2027. Contracting Parties also agreed on the dates for:
- (i) Submission of National Reports by 27 July 2027.
  - (ii) Submission of the questions/comments by 26 November 2027.
  - (iii) Submission of answers by 25 February 2028.

Annex 1 of the Summary Report of the Eighth Review Meeting

**Revised INFCIRC 603 as adopted at the closing plenary session**

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

## Guidelines regarding the Review Process

1. The “Guidelines regarding the Review Process” adopted at the Preparatory Meeting of the Contracting Parties to the Joint Convention held from 10 to 12 December 2001 were modified at
  - (i) the First Review Meeting of the Contracting Parties held from 3 to 14 November 2003,
  - (ii) the Extraordinary Meeting of the Contracting Parties held on 7 November 2005,
  - (iii) the Second Review Meeting of the Contracting Parties held from 15 to 24 May 2006,
  - (iv) the Third Review Meeting of the Contracting Parties held from 11 to 20 May 2009,
  - (v) the Fourth Review Meeting of the Contracting Parties held from 14 to 23 May 2012,
  - (vi) the Second Extraordinary Meeting of the Contracting Parties held from 12 to 13 May 2014,
  - (vii) the Third Extraordinary Meeting of the Contracting Parties held from 16 to 17 May 2017,
  - (viii) the Fourth Extraordinary Meeting of the Contracting Parties held from 4-6 May 2022,
  - (ix) the Seventh Review Meeting of the Contracting Parties held from 27 June to 8 July 2022,  
and
  - (x) the Fifth Extraordinary Meeting of the Contracting Parties held from 25 to 26 March 2024.
2. The modified “Guidelines regarding the Review Process” are set forth in the Attachment hereto.



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

## Guidelines regarding the Review Process

### Contents

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management	
I. Introduction.....	2
II. Background.....	2
III. Organizational Meeting and Nomination of Officers.....	2
IV. Structure of Review Meeting.....	4
V. Assignment of the Contracting Parties to Country Groups.....	6
VI. The Country Group Review Process.....	7
VII. Duties of a Contracting Party as a Member of a Country Group.....	8
VIII. Guidance to Officers on how to Conduct a Country Group Session.....	9
IX. Distribution of National Reports and Subsequent Actions.....	11
X. Summary Report.....	12
ANNEX 1	
Duties and Qualifications of Officers for a Review Meeting of the Joint Convention .....	16
I. Background.....	16
II. Duties of Officers.....	16
III. Qualifications of Officers.....	18
ANNEX 2	
Common Understanding of the Terms “Good Practice”, “Area of Good Performance”, “Suggestion”, and “Challenge”.....	21
I. Good Practice.....	21
II. Area of Good Performance.....	21
III. Suggestion.....	21
IV. Challenge.....	21

## **I. Introduction**

1. These guidelines, established by the Contracting Parties under Article 29 of the Convention, are intended to be read in conjunction with the text of the Convention for the purpose of providing guidance to Contracting Parties on the process for reviewing National Reports submitted under Article 32, in order to facilitate the efficient review of the Contracting Parties' implementation of their obligations under the Convention.
2. The aim of the review process is to examine National Reports thoroughly, so that Contracting Parties can learn from each other's solutions to common and individual safety problems concerning spent fuel management and radioactive waste management and, above all, contribute to achieving and maintaining a high level of safety worldwide through a constructive exchange of views. The success of the review process is dependent on the commitment of each and every Contracting Party (1) to take a critical look at its national program and report issues and potential issues in a frank and candid manner, and (2) to ask each other difficult and sometimes challenging questions. A time chart of the steps leading up to a Review Meeting is given in Table 1.

## **II. Background**

3. Recognizing that reviews of National Reports at periodic meetings under Article 30 of the Convention could be accomplished more efficiently through the establishment of subgroups, the Contracting Parties have decided to establish Country Groups for each Review Meeting. Each group will consider in detail the National Report of each member of that group, discussing all the subject areas covered by the reports.
4. An Organizational Meeting held prior to a Review Meeting may decide whether it is appropriate to organize topical sessions at the Review Meeting to address more specifically particular subjects that may not be adequately considered within the Country Group arrangements.

## **III. Organizational Meeting and Nomination of Officers**

5. Approximately twelve months before each Review Meeting, an Organizational Meeting will be held to allocate Contracting Parties to Country Groups (see Section V), elect the Review Meeting President and Vice-Presidents, and select Country Group Co-ordinators, Rapporteurs, Chairpersons, and Vice-Chairpersons.
6. In advance of the Organizational Meeting, the Secretariat shall circulate to the Contracting Parties a background information brochure containing guidance such as introducing the Joint Convention and its associated Rules of Procedure and Guidelines.

### **III.1. Nomination of the President and Vice-President**

7. Not later than three months before the Organizational Meeting, the Secretariat will request Contracting Parties to submit in writing the name of any individual that the Contracting Party is nominating for election to the position of President or Vice-President. Not later than two months before the Organizational Meeting, as part of such nomination, a Contracting Party shall provide, in writing, relevant biographical information on the candidate, the qualifications of the candidate, the issues that should be addressed by the Contracting Parties during the next three years and the position of the

candidate on those issues. The Secretariat will circulate the names of candidates for the position of President or Vice-Presidents and materials supporting their candidacy to all Contracting Parties at least one month before the Organizational Meeting.

8. Contracting Parties will endeavour to reach consensus on the President and Vice-Presidents from the candidates nominated in accordance with Paragraph 7.

9. Each candidate for the elective places, or their representative, shall have the opportunity to make a short oral presentation to the Contracting Parties at the Organizational Meeting that addresses the items in the material supporting their candidacy and shall answer questions from the Contracting Parties.

### **III.2. Nomination of Other Officers**

10. The Secretariat will, not later than three months prior to the Organizational Meeting, request written nominations of Country Group Officers (Chairpersons, Vice-Chairpersons, Co-ordinators and Rapporteurs) from the Contracting Parties.

11. Contracting Parties should indicate the extent to which the nominated candidates would be willing to stand for alternative positions in the event that they are not selected as per their first choice. The number of candidates nominated by each Contracting Party will be limited to a maximum of four.

12. Annex 1 contains a list of desirable qualifications and experience of the Country Group Officers, and a summary of their duties. Contracting Parties are encouraged to take that information into account when considering nominations.

13. All written nominations, received by the Secretariat, not later than one month prior to the Organizational Meeting will be circulated to all Contracting Parties ahead of the Organizational Meeting.

### **III.3. Selection of Other Officers**

14. During the Organizational Meeting, following the allocation of the Contracting Parties into Country Groups, the Country Groups will meet separately and decide within the Country Group on the nominations for Chairpersons, Vice-Chairperson, Rapporteur and Co-ordinator from within that Country Group.

15. Country Groups should decide by consensus from the nominations, submitted one month ahead of the organizational meeting, for each of the four positions. [Nominations for the relevant position reflected as being first choice are considered at this stage. Nominations for alternative posts may only be considered for a position with no first-choice candidate.](#)

16. The consensus decision should consider to the extent practicable, geographical distribution and gender diversity. The suggested number of selected officers per Contracting party should in general not exceed two.

17. In the unlikely event that there are no nominations for a post, the post shall remain vacant and shall be reported as being vacant to the plenary.

18. The remaining un-appointed nominations shall be placed on a separate reserve list applicable to each of the 4 posts (Chairperson, Vice-Chairperson, Co-ordinator and Rapporteur). The reserve lists shall be coordinated and managed by the Secretariat. Candidates will be allocated to the reserve lists based on the nominations made as per Paragraph 11 above.

19. On return to Plenary the nominated officers (including vacancies) will be rotated starting with the nominated Chairpersons, then Vice- Chairpersons, Co-ordinators and finally Rapporteurs. The rotation

in each case will be effected by the President drawing a random number not exceeding the number of Country Groups less one (1), and in such a way that a drawn number is not used again.

20. Following the rotation of appointed officers, each Country Group shall be reviewed in turn starting with Country Group 1, to identify existing vacancies.

21. Where a vacancy exists, this vacancy shall be filled by the President drawing a random number representing the names of the remaining un-appointed nominations on the reserve list for the respective role. Priority should be given to nominations to the post as a first choice. Once the list with the first choice nominees has been exhausted, nominations as an alternative choice should be considered. Nominations transmitted as per Paragraph 11 with no information on the choice of post will not be considered.

22. The vacancies will be filled in the following order of priority –

- (a) Chairpersons,
- (b) Vice-Chairpersons
- (c) Co-ordinators
- (d) Rapporteurs

23. In the process of filling vacancies from un-appointed nominations on the reserve lists, in the event that a nominee is from within the Country Group in question, the said nominee is ineligible for consideration for in the case of that specific vacancy.

24. In the case where there is a vacancy and no further eligible nominations exist on the reserve list for a particular position, then additional nominations may be called for from the Contracting Parties during the plenary.

25. The additional nominations received will be used to reconstitute the reserve list for said position.

26. The implementation of Paragraphs 21, 23 and 24 and 25 may result in more than two Country Group Officers per Contracting Party.

#### **III.4. Additional Considerations**

27. Pursuant to Rule 11 of the Rules of Procedures and Financial Rules, a provisional timetable for the Review Meeting should be prepared and presented by the Secretariat. Subsequent to the Organizational Meeting, the General Committee in consultation with the Secretariat will develop the detailed schedule of Country Group sessions with the aim of equitable distribution based on the national programmes. This will be made available to all Contracting Parties within three months after the Organizational Meeting.

26-28. Following the Organizational Meeting, a workshop of incoming and outgoing officers shall be held to describe the Review Meeting process in detail, including but not limited to key documents, identification of Good Practices and to share experience and lessons learned. The National Contacts, as described in Annex 1, shall be invited to participate, if they consider it appropriate, in this meeting.

Commented [OLA1]: To be renumbered from this Paragraph. Consistency check should be performed.

#### **IV. Structure of Review Meeting**

27-29. Review Meetings are expected to have a duration of two weeks. During the Meeting,



Contracting Parties will meet in pre-assigned Country Groups in order to review National Reports in detail. In addition to these Country Group sessions, there will be plenary sessions, and depending on the need, other meetings of various types.

#### **IV.1. Opening Plenary Session**

~~29-30.~~ At a short opening session in plenary, procedural matters will be addressed. National statements, if any, will be accepted in writing only.

#### **IV.2. Closing Plenary Session**

~~29-31.~~ (a) One day prior to the closing plenary session of the Review Meeting, the Rapporteur for each Country Group will make available to all Contracting Parties a Rapporteur's written report that takes account of the views expressed in the discussion on each National Report in that group, includes Good Practices, Areas of Good Performance, Suggestions, Challenges (see Annex 2) and points of agreement and disagreement, and summarizes the overarching issues identified by that Country Group;

(b) One day prior to the closing plenary session of the Review Meeting, the President will make available to all Contracting Parties a written report on the Good Practices recognized by the Country Groups, including the basis on which they were found by the Country Groups to meet all the elements of a Good Practice.

(c) In the closing plenary session of the Review Meeting:

- i. for each Country Group in turn, the relevant group Rapporteur will make a brief and concise oral report that summarizes the overarching issues identified by the group and draws out these issues for discussion in the plenary session;
- ii. each Contracting Party will have an opportunity to respond to the questions raised and/or comments made on its National Report;
- iii. there will be an opportunity for all Contracting Parties to comment on any National Report and on the Rapporteurs' written and oral reports;
- iv. the President will make a brief and concise oral report to Contracting Parties that introduces the Good Practices recognized by the Country Groups and the basis on which they were found by the Country Groups to satisfy all the elements of a Good Practice;
- v. there will be a thorough and candid discussion of the overarching issues identified in the Country Group Rapporteurs' written and oral reports; this should be followed by a discussion of the status of world-wide safety of spent fuel management and world-wide safety of radioactive waste management;
- vi. suggestions concerning changes to any of the Convention's documents or procedures will be discussed;
- vii. the date for the following Review Meeting, and the related schedule of deadlines, will be discussed and agreed;
- viii. the meeting summary report will be discussed and approved by consensus of the Contracting Parties; and

- ix. the President's report will be tabled.

~~30-32.~~ Contracting Parties should note that the closing plenary session has an uncertain duration. It can continue well past the normal time at which meetings end, due to the need for consensus on the meeting summary report. Delegates are therefore advised to avoid travel commitments on the final day of a Review Meeting.

### **IV.3. Intermediate Plenary Sessions**

~~31-33.~~ Plenary sessions may be held at the call of the President at any time during a Review Meeting.

### **IV.4. Country Group Sessions**

~~32-34.~~ These sessions will be conducted in the manner described in Sections VI and VII.

### **IV.5. Open-ended Working Group Sessions**

~~33-35.~~ Contracting Parties in plenary session can decide to create one or more open-ended working groups to meet during a Review Meeting. As the name suggests, any Contracting Party can attend any meeting of an open-ended working group. The tasks assigned to the group should be documented. The purpose of such groups is to allow discussion and resolution of procedural and other issues relevant to the functioning of the Convention prior to their consideration by a plenary session. Open-ended working group sessions should be scheduled so as to not conflict with plenary sessions and Country Group sessions.

## **V. Assignment of the Contracting Parties to Country Groups**

~~34-36.~~ The mechanism for establishing Country Groups is herein set out:

- (a) The membership of Country Groups should not be such as to represent particular geographical areas;
- (b) the number of groups for a particular Review Meeting will be decided at the corresponding Organizational Meeting, taking into account the number of the Contracting Parties;
- (c) in order to achieve sufficient breadth of experience to promote both effective and efficient discussion, each group should contain approximately equal numbers of the Contracting Parties with experience of the management of spent fuel and radioactive waste associated with nuclear power plants;
- (d) the means adopted for ensuring this is to rank Contracting Parties by the number of their nuclear power reactors that have achieved criticality, including those that are being decommissioned and those that have completed decommissioning in accordance with the definition in the Convention, and within that, alphabetically in English. These Contracting Parties shall be categorized as "Power Reactor Contracting Parties". The "Power Reactor Contracting Parties" shall then be subcategorized into "Power Reactor Group A" and "Power Reactor Group B". The "Power Reactor Group A" subcategory shall consist of the first half of the ranked "Power Reactor Contracting Parties", i.e., half of the "Power Reactor Contracting Parties" that have the highest number of nuclear reactors. The "Power Reactor Group B" subcategory shall consist of the second half of the ranked "Power Reactor Contracting Parties", i.e., half of the "Power Reactor Contracting Parties" that have the lowest

number of nuclear reactors. Where the number of “Power Reactor Contracting Parties” is odd, the “Power Reactor Group A” subcategory shall contain one more Contracting Party than the “Power Reactor Group B” subcategory. The “Power Reactor Group A” Contracting Parties will be randomly assigned into Country Groups starting with the first row of Country Group 1, moving left to right, and then the second row of Country Group 1, moving left to right, continuing to work through all the “Power Reactor Group A” Contracting Parties until exhausted. The process will then continue but with the “Power Reactor Group B” subcategory. To be randomly assigned, all Contracting Parties’ country names in the category that is being assigned shall be placed in a hat and drawn at random, until exhausted, by the President. Assigned country names will not be returned to the hat.

- (e) Contracting Parties that do not have nuclear power reactors, but that have research reactors that have achieved criticality including those that are being decommissioned and those that have completed decommissioning in accordance with the definition in the Convention shall be categorized as “Research Reactor Contracting Parties”. The distribution of “Research Reactor Contracting Parties” shall be made on an alphabetical basis, continuing the process from where it stopped for the Contracting Parties referred to in paragraph 34 (d). This should start with a randomly selected letter and then the use of the first letter of each Contracting Party’s country name, spelt in English.
- (f) All other Contracting Parties shall be categorized as “All other Contracting Parties”. The distribution of “All other Contracting Parties” shall be made on an alphabetical basis, continuing the process from where it stopped for the Contracting Parties referred to in paragraph 34 (e). This should start with a randomly selected letter and then the use of the first letter of each Contracting Party’s country name, spelt in English.

~~35-37.~~ \_\_\_\_\_ States or regional organizations of an integration or other nature which ratify the Convention after an Organizational Meeting but at least 90 days before the associated Review Meeting are obliged to join in the review process with other Contracting Parties. Such Contracting Parties should be added to existing Country Groups in sequential order of date of ratification, continuing the process from where it stopped under para. 35.

~~36-38.~~ \_\_\_\_\_ Under the terms of Article 40(2), States or regional organizations of an integration or other nature which ratify later than 90 days before the date fixed for a Review Meeting (late ratifiers) will not become Contracting Parties until after that Review Meeting has begun. However they may, upon a consensus decision of the Contracting Parties, participate at the Review Meeting. To facilitate such participation, the President of the Review Meeting shall circulate to all Contracting Parties the proposal for the late ratifier to participate and seek their views thereon. If no Contracting Party objects, the late ratifier may be granted full participation rights in the Review Meeting. National Reports produced by late ratifiers will be distributed as soon as possible by the Secretariat to all Contracting Parties. Such Contracting Parties should be added to existing Country Groups in sequential order of date of ratification, continuing the process from where it stopped under para. 34 (e).

~~37-39.~~ \_\_\_\_\_ Table 2 shows the process of such an allocation to Country Groups if there were eight groups and Table 3 shows an example of the outcome of the process.

## **VI. The Country Group Review Process**

~~38-40.~~ \_\_\_\_\_ As provided for in Article 30(3) of the Convention, each Contracting Party shall have a reasonable opportunity to discuss the National Reports of any other Contracting Party. In the period up

to three months before each Review Meeting, all Contracting Parties may submit questions and/or comments on individual National Reports. These questions and/or comments and the responses to them should be distributed to all Contracting Parties (see Section IX).

~~39-41.~~ In order to facilitate the review process, Contracting Parties attending a Review Meeting are assigned to Country Groups (see Section V). The purpose of the Country Group sessions is to review together the National Reports submitted by the Contracting Parties that are members of the Country Group. In order to attain the objectives of the Convention, this review should be thorough and conducted by the Contracting Parties who are Country Group members in a constructive manner and should promote robust and candid discussions in order to identify Good Practices, Areas of Good Performance, Suggestions, Challenges and other issues that may be an overarching issue that is important to improving the safety of radioactive waste and spent fuel management.

~~40-42.~~ Country Group sessions should be scheduled so as to not conflict with plenary sessions.

~~41-43.~~ While any Contracting Party may attend any Country Group session, and participate in the peer review as resources permit, Contracting Parties are encouraged to provide the Secretariat at the latest two weeks before each Review Meeting with a list of which Country Group sessions they intend to attend, in order to allow the Secretariat to make the appropriate meeting space and logistical arrangements. A Contracting Party is expected to participate in all reviews carried out by the Country Group of which it is a member.

~~42-44.~~ Attendance of Country Group sessions by Contracting Parties who are not members of the Country Group is voluntary. During discussions in the Country Group questions, comments or other interventions from Country Group members will be given priority. Time permitting, questions, comments or other interventions from Contracting Parties who are not members of the Country Group will be considered.

~~43-45.~~ Contracting Parties should provide a leading role for their regulatory bodies in their delegations attending Country Group sessions.

~~44-46.~~ Each Country Group shall allow an appropriate amount of time, not exceeding four hours, for the presentation and discussion of each National Report and the finalisation of the rapporteur's daily report on the session. The total time available for group sessions will have been decided at the Organizational Meeting.

~~45-47.~~ A major objective of the review session should be to identify any Good Practices, Areas of Good Performance, Suggestions, Challenges or other issues that may be an overarching issue that should be highlighted as important to improving safety. The time allocation for each part of a Country Group session is set out in para. 61(d). The Country Group Rapporteur should present to the participants a draft session report that summarizes the National Presentation and the related discussions. The Rapporteur should then finalize the draft session report based upon the agreement of the Country Group members. This report should identify Good Practices, Areas of Good Performance, Suggestions, Challenges, and other important issues including areas of agreement and disagreement.

~~46-48.~~ The Rapporteurs' session reports should be provided to the Review Meeting President and to the Secretariat within half a day of the end of the relevant Country Group session to facilitate preparation of the overall Review Meeting summary report.

~~47-49.~~ This process should be repeated for each National Report.

~~48-50.~~ The Country Group members should discuss and agree on the content of the written report to be presented to the Contracting Parties by the Country Group's Rapporteur. In general, the written

report should be a consolidation of the various session reports for that Country Group plus a summary of the overarching issues identified by the Country Group.

~~49-51.~~ The Secretariat will store the Rapporteurs' session report confidentially. During the meeting of officers immediately preceding the start of the next Review Meeting, a copy of the session report for each Contracting Party will be given to all officers of the Country Group.

## **VII. Duties of a Contracting Party as a Member of a Country Group**

~~50-52.~~ Article 33 of the Convention requires Contracting Parties to attend meetings of the Parties. Attendance at Review Meetings is therefore obligatory. The purpose of Review Meetings is to review National Reports. This review is carried out in Country Groups. It therefore follows that an important obligation on each Contracting Party is to participate fully in its Country Group.

~~51-53.~~ Each Contracting Party thus has two sets of duties, one being to undergo a review by Contracting Parties, and the other being to review the reports of other members of the Country Group to which it has been assigned.

~~52-54.~~ As a member of a Country Group, a Contracting Party should:

- (a) study in detail the National Reports of all other members of its group bearing in mind the terms Suggestion, Area of Good Performance, and Good Practice, as described in Annex 2, and considering their applicability to the practices, policies, and programs discussed in a Contracting Party's National Report;
- (b) inform other Contracting Parties in the Country Group, both directly through the identified National Contacts, and through the relevant group Co-ordinator, of any questions and comments arising from its review of the National Reports; and
- (c) during Country Group sessions, participate in an in-depth discussion of the National Report of each member of the group.

~~53-55.~~ In relation to undergoing a review by other Contracting Parties, a Contracting Party should:

- (a) prepare a detailed report as required by Article 32 of the Convention;
- (b) provide answers to the written questions and comments of other Contracting Parties on its National Report;
- (c) prepare and provide to its Country Group during the Review Meeting a presentation based on its National Report and the ensuing questions and comments;
- (d) provide a copy of the presentation to the Country Group Chair by noon the day before the presentation is scheduled, so that it may be distributed to the Country Group officers and Country Group members before the close of business; and
- (e) arrive in the Country Group meeting room 15 minutes before the presentation to review logistics with the Country Group Chair.

## **VIII. Guidance to Officers on how to Conduct a Country Group Session**

~~54-56.~~ The objective of the sessions of a Country Group during a Review Meeting of the Joint Convention is to review the National Reports submitted by the Contracting Parties that are members of the Country Group. As stated in para. 39, this review should be comprehensive, constructive, and open. The officers for each Country Group play a crucial role in determining how well the Country Group achieves this objective.

~~55-57.~~ The officers of a Country Group are the Chairperson, the Vice-Chairperson, the Co-ordinator, and the Rapporteur. These will all have been selected at the Organizational Meeting held before the Review Meeting.

~~56-58.~~ During the interim period between the Organizational Meeting and the Review Meeting, the National Reports will have been distributed, and written questions, comments, and responses generated. The Co-ordinator receives National Reports, questions, comments and answers for his/her Country Group, and will produce an analysis of the material and identify any trends before the start of the Review Meeting. Before the start of the Review Meeting,

- (a) the Co-ordinator will produce a Co-ordinator's report that contains a summary and an analysis of this information, as well as an identification of any trends.
- (b) a copy of the Co-ordinator's report, specific to the Country Group, will be sent, confidentially, to the other officers and all Contracting Parties who are members of the Country Group. At the end of the Review Meeting, the Secretariat will upload the Co-ordinator's report for each Country Group on the Joint Convention secure website.

~~57-59.~~ Each Country Group officer should become familiar with the National Reports from Contracting Parties that are members of the Country Group, and the Co-ordinator's report, before arriving for the Review Meeting.

~~58-60.~~ Review Meeting officers should convene, together with the Secretariat staff members who will be participating in the Review Meeting, for two days immediately preceding the start of the Review Meeting. On the first of these two days, agreement should be reached on subjects such as the structure and content of the Rapporteurs' session reports, the application of the terms Good Practice and Area of Good Performance as described in Annex 2, the timing of sessions, how the General Committee will interact with Country Groups, how Country Group Chairs will report the Good Practices recognized by their respective Country Groups to the General Committee, how the General Committee will report to Contracting Parties at the closing plenary session on the Good Practices recognized by the Country Groups, the format of Rapporteurs' written and oral reports to the closing plenary session, etc. The second day should be devoted to separate meetings of each set of Country Group officers, together with the Secretariat member who will be assisting the group. During these meetings, each group of officers should discuss the Co-ordinator's analysis in some detail, since this analysis identifies and summarizes the questions and comments on each Convention article, and the main issues emerging from those. The officers will also receive copies of the Rapporteurs' written reports from the previous Review Meeting, for the Contracting Parties that are in the Country Group. These written reports should be studied for any item on which follow-up was recommended. The officers should also discuss their intended method of operation during the Review Meeting.

~~59-61.~~ In preparing for a Country Group session, the Chairperson of the country group should prepare an abbreviated version of the Co-ordinator's report, listing individual points under each of the reporting headings. Prior to the start of the Country Group session, the group's officers should each have a copy of this abbreviated listing.

~~60-62.~~ (a) During the presentation and subsequent discussion in the Country Group, the officers should

use the abbreviated listing as a checklist for items to be discussed. If any item has not been mentioned, the Chairperson should make a point of raising it before closing the session.

(b) The Chairperson should also endeavor to facilitate robust and candid discussion in the Country Group regarding any proposed Good Practice, including (1) encouraging a candid and thorough discussion among the Country Group members regarding how a proposed Good Practice satisfies all the elements of a Good Practice, and (2) determining for each proposed Good Practice that there is support within the Country Group.

(c) If necessary, the Chairperson should proactively encourage each member of the Country Group to participate in the discussion, especially of difficult items. By following this systematic approach, the Chairperson can ensure that the Country Group deals comprehensively with each National Report and presentation, and by use of teamwork, the workload involved can be distributed in a reasonable way between the officers of the Country Group.

~~61-63.~~ The essence of the recommended approach is:

- (a) thorough preparation by the Chairperson, so that the Chairperson is familiar with the issues that are likely to be relevant, in advance of the Country Group session. The Co-ordinator's report is the obvious starting point for the detailed preparation;
- (b) that all officers of the Country Group should also be familiar with the issues so that they can be effective team members during the Country Group sessions;
- (c) that officers should remember that they have a duty to encourage a full discussion and optimum dialogue after each national presentation;
- (d) that the Chairperson should manage the time available for considering each National Report to ensure the Country Group optimizes the time for discussion within the allowed time period for the session and to promote a robust and candid discussion in order to identify Good Practices, Areas of Good Performance Suggestions, Challenges and other issues that are important to improving the safety of radioactive waste and spent fuel management. The available time for the review session is up to one-quarter for the presentation, one-third for the preparation of and agreement on the Rapporteur's session report, and the remainder for discussion including an overview of written questions and answers; and
- (e) that officers should be available to assist the Rapporteurs, as needed, in the preparation of the session report from each Country Group, and the Rapporteurs written and oral reports to plenary. In order to achieve this, the Chairperson should be alert to the possible need to allow the Rapporteur to leave the session temporarily to write up a particularly complex or controversial part of the report while it is still fresh in the Rapporteur's mind. In such instances, it is suggested that the Vice-Chairperson temporarily assumes the role of the Rapporteur.

## **IX. Distribution of National Reports and Subsequent Actions**

~~62-64.~~ Not later than seven months before each Review Meeting, each Contracting Party should submit its National Report under Article 32 of the Convention to the Secretariat of the Review Meeting, for circulation to all Contracting Parties and to the observers invited under Article 33(2) of the Convention. The National Report should be submitted electronically, to the Joint Convention secure website, as a single PDF format file. The submission of hard copies of National Reports is discouraged.

~~63-65.~~ States or regional organizations of an integration or other nature which ratify the

Convention after an Organizational Meeting but at least 90 days before the associated Review Meeting are required to submit as soon as possible, and in any event not later than 90 days before the Review Meeting, a National Report under Article 32 of the Convention and are entitled to receive the National Reports of other Contracting Parties.

~~64-66.~~ Each Contracting Party should then review the National Reports of the Contracting Parties in their Country Group in detail, and the National Reports of other Contracting Parties to the extent desired.

~~65-67.~~ Questions and comments on a National Report of a Contracting Party should be submitted electronically on the Joint Convention secure website at least three months before each Review Meeting, unless otherwise decided by the Contracting Parties.

~~66-68.~~ The Contracting Party receiving questions and comments on their National Report should submit responses thereto electronically on the Joint Convention secure website not later than one month before a Review Meeting, unless otherwise decided by the Contracting Parties. In this way each Contracting Party will be aware of all the issues raised and the associated responses on each National Report before the Review Meeting.

~~67-69.~~ The submission of National Reports, questions or comments on National Reports, as well as responses to questions and comments on National Reports on the Joint Convention secure website should be undertaken by the National Contact for the Contracting Party concerned. Contracting Parties may elect to use batch uploading when appropriate. The Contracting Party's National Contact is responsible to ensure that questions posed on National Reports of other Contracting Parties and responses to questions posed or comments raised on their National Reports are complete and uploaded in a timely manner.

~~68-70.~~ If a Contracting Party submits questions and comments late in the process (in light of the dates agreed for such submissions), those questions and comments should not be entertained unless the recipient Contracting Party and relevant Country Group Chairperson agree.

~~69-71.~~ The Secretariat will make publicly available each National Report, as uploaded to the Joint Convention secure website, within 90 days after the Review Meeting unless the Contracting Party concerned notifies the Secretariat otherwise.

## **X. Summary Report**

~~70-72.~~ As provided for in Article 34 of the Convention, a summary report is required to be published at the end of each Review Meeting. The President should prepare this and submit it to the closing plenary session for adoption by consensus by the Contracting Parties. The summary report is for public distribution and should be concise and clear. It should summarize major issues, possibly by combining significant points made in the Rapporteurs' written and oral reports that summarized the Country Group discussions. It should not identify any particular Contracting Party by name except as specified below; but should highlight the overarching issues identified by the Contracting Parties. It should also make recommendations as appropriate for the future. The summary report will identify any Contracting Parties that did not submit National Reports or attend the Review Meeting. The President should also prepare a "President's Report". This should summarize the main findings of the meeting and contain other information useful to the Secretariat such as appropriate logistical comments or suggestions, details of any modifications to supporting documents approved by the Review Meeting, and other similar material. This report should be presented to the Contracting Parties for consideration; but is not intended to be a public document.



Table 1: Time Chart \*

Organizational Meeting	Deadline for Submission of National Reports	Deadline for Submission of Questions and Comments	Deadline for Submission of Answers	Deadline for Notification of Participation in Country Groups	Officers' Meeting	Start of Review Meeting
- 12 months	- 7 months	- 3 months	- 1 month	- 2 weeks	- 2 days	0 day
Rule 11.1. in the Rules of Procedure and Financial Rules	Rule 38 in the Rules of Procedure and Financial Rules	Paras. 38 & 65 of the Guidelines Regarding the Review Process	Paras. 53 (c) & 65 of the Guidelines Regarding the Review Process	Para 41 of the Guidelines Regarding the Review Process	Para 58 of the Guidelines Regarding the Review Process	Article 30 of the Convention

\* The time shown in this chart are approximate. The exact deadlines and timing of events will be determined in accordance with the Convention, the relevant rules and guidelines, as well as any relevant practice.

**Table 2: Country Group Allocation Process**

CG 1	CG 2	CG 3	CG 4	CG 5	CG 6	CG 7	CG 8
x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
Δ	Δ	Δ					

- x: Power Reactors Group A – half of the Power Reactor Contracting Parties (highest numbers of nuclear reactors) [randomly assigned]
- x: Power Reactors Group B – half of the Power Reactor Contracting Parties (lowest numbers of nuclear reactors) [randomly assigned]
- o: Research Reactor Contracting Parties alphabetically assigned starting with a random letter
- Δ: All other Contracting Parties alphabetically assigned starting with a random letter

**Table 3: Country Group Allocation Example**

CG 1	CG 2	CG 3	CG 4	CG 5	CG 6	CG 7	CG 8
United Kingdom	Slovakia	Sweden	China	Germany	Belgium	Ukraine	Czech Republic
United States of America	France	Korea, Republic of	Canada	Russian Federation	Spain	Bulgaria	Japan
Netherlands	Armenia	Switzerland	United Arab Emirates	Finland	Slovenia	Italy	South Africa
Hungary	Mexico	Kazakhstan	Romania	Brazil	Argentina	Lithuania	Jordan
Latvia	Morocco	Nigeria	Norway	Peru	Poland	Portugal	Serbia
Thailand	Uruguay	Uzbekistan	Vietnam	Australia	Austria	Belarus	Chile
Denmark	Georgia	Ghana	Greece	Indonesia	Kyrgyzstan	Lesotho	Luxembourg
Madagascar	Malta	Mauritania	Mauritius	Montenegro	Niger	North Macedonia	Oman
Paraguay	Republic of Moldova	Saudi Arabia	Senegal	Tajikistan	Albania	Benin	Bolivia
Bosnia & Herzegovina	Botswana	Croatia	Cuba	Cyprus	Eritrea	Estonia	EURATOM
Gabon	Iceland	Ireland					

Footnote: This table is provided only for illustrative purposes. It does not reflect the latest status of Contracting Parties.

## ANNEX 1

### Duties and Qualifications of Officers for a Review Meeting of the Joint Convention

#### I. Background

As a result of experience at the First Review Meeting of the Contracting Parties held from 3–14 November 2003, the following guidelines were developed which reflect the duties and qualifications of officers of a Review Meeting. The list, although not exclusive, identifies the major duties and essential qualifications of these officers.

#### II. Duties of Officers

##### II.1. President

- (a) To preside over plenary sessions of the Review Meeting;
- (b) To preside over meetings of the General Committee;
- (c) To produce and make available to the Contracting Parties a written report that consolidates the Good Practices recognized in the Country Groups and identifies the basis on which they were found by the Country Groups to meet all the elements of a Good Practice, and to present an oral report in the closing plenary session that summarizes the written report;
- (d) To generally direct and oversee the review process, and the functioning of the Review Meeting;
- (e) To represent the Review Meeting to the media as appropriate;
- (f) To prepare a draft summary report of the Review Meeting and a President's report on the Review Meeting; and
- (g) To direct the business of the General Committee in the period after the Review Meeting until the following Organizational Meeting.

##### II.2. Vice-President

- (a) To act as the President of the Review Meeting, if necessary;
- (b) To participate in meetings of the General Committee;
- (c) To assist the President, as appropriate; and
- (d) To chair meetings of open-ended groups established by the plenary sessions if so decided by the Contracting Parties at the plenary session.

##### II.3. Country Group Chair

- (a) To chair and generally manage the meetings of a Country Group;
- (b) To promote and stimulate discussion of relevant issues in the Country Group meeting;
- (c) To study the National Reports of his/her Country Group, in advance of their presentation;

- (d) To be familiar with the main issues arising from the questions and answers on each of the National Reports to be considered in his/her Country Group;
- (e) To support the Rapporteur in the preparation of the Rapporteur's reports;
- (f) To participate in meetings of the General Committee;
- (g) To implement in his/her Country Group the decisions of the General Committee; and
- (h) To report to the General Committee on the progress in the Country Group, on the Good Practices recognized by the Country Group including the basis on which each one was found to satisfy all the elements of a Good Practice, and on any organizational issues arising in connection with the Country Group.

#### **II.4. Country Vice-Chair**

- (a) To act as the Country Group Chair, if necessary;
- (b) To support the Rapporteur in the preparation of the Rapporteur's reports; and
- (c) To act as Rapporteur if necessary during Country Group discussion, for example to allow the Rapporteur to leave the Country Group temporarily in order to capture promptly in written form the outcome of complex discussions or in the absence, otherwise, of the Rapporteur.

#### **II.5. Rapporteur**

- (a) To be familiar with the National Reports to be presented in his/her Country Group and the relevant Co-ordinator's report;
- (b) To record the essentials of the discussion of each of the National Reports in his/her Country Group sessions;
- (c) To identify topics and issues that are agreed by the Country Group to be Areas of Good Performance, Suggestions and Challenges;
- (d) To identify practices, policies, and programs that are agreed by the Country Group to be Good Practices and the specific reasons that demonstrate how such practices, policies, and programs satisfy all of the elements of a Good Practice;
- (e) To highlight topics and issues that may be identified by the Country Group as overarching issues;
- (f) To identify topics and issues that are agreed by the Country Group to be areas where follow-up at a subsequent Review Meeting would be desirable;
- (g) To produce a draft session report after each national presentation, summarizing the above items;
- (h) To revise the draft session report after discussions in the Country Group and to provide the resulting session report to the Review Meeting President and to the Secretariat within one half day of the close of the session;
- (i) To produce and make available to the Contracting Parties, a written report that consolidates the session reports for each National Report presented in the Country Group, and represents a summary of the discussions that took place in the Country Group during the Review Meeting, any decisions reached by the Country Group including any Good Practices recognized by the Contracting Parties and the bases thereof, any conclusions, and a summary of the overarching

issues identified by the Country Group, and to present an oral report in the plenary that summarizes the overarching issues; and

- (j) To produce the above reports in accordance with the format, timing, and other details as directed by the General Committee.

## **II.6. Co-ordinator**

- (a) To undertake follow-up with the National Contacts for his/her Country Group, to monitor that Contracting Parties in his/her Country Group adhere to prescribed timetables and agreed formats for submission of National Reports posting of questions and comments and posting of responses to questions and comments received.
- (b) To review National Reports, questions, comments and answers related to Contracting Parties in his/ her Country Group.
- (c) To develop a Co-ordinator's report that contains a summary and an analysis of National Reports, questions, comments and answers for his/her Country Group, as well as an identification of any trends.
- (d) The Co-ordinator's report is intended to aid discussions during the Country Group sessions. As such it needs to be provided before the start of the Review Meeting.

## **II.7. National Contacts**

National Contacts will be nominated by each Contracting Party and will be expected:

- (a) To have access to and regularly monitor the Joint Convention secure website, together with the right to upload national documents, questions, and answers;
- (b) To ensure that questions posed on National Reports of other Contracting Parties and responses to questions posed or comments raised on their National Reports are complete and uploaded in a timely manner.
- (c) To facilitate progress on issues related to the Convention in their own Contracting Party;
- (d) To act as contact for the Country Group Co-ordinator prior to each Review Meeting; and
- (e) To consider participating in the one-day meeting of incoming and outgoing Officers of the Joint Convention.

## **III. Qualifications of Officers**

### **Note**

In general, it is desirable that a candidate for an officer position has experience in the Convention, and especially in a previous Review Meeting of the Convention, although such experience need not have been as an officer.

### **III.1. President**

- (a) Have experience in chairing large international meetings;
- (b) Be available for:

- (i) the Organizational Meeting in advance of the Review Meeting,
  - (ii) the duration of the Review Meeting, and
  - (iii) occasional meetings during a period of three years after the Review Meeting;
- (c) Be knowledgeable, either first hand or by being well briefed, on the Joint Convention and its processes, and on some of the major current issues in the safety of spent fuel and radioactive waste management; and
- (d) Be skilled at facilitating consensus.

### **III.2. Vice-President**

- (a) Same qualifications as in item III.1 for President.

### **III.3. Country Group Chair**

- (a) Have a demonstrated aptitude for encouraging the discussion of issues;
- (b) Have a good command of the English language;
- (c) Be a good communicator;
- (d) Be available for the duration of the Review Meeting; and
- (e) Have no vested interests, either personal or national, in countries in his/her Country Group.

### **III.4. Country Group Vice-Chair**

- (a) Same qualifications as in item III.3 for Country Group Chair.

### **III.5. Rapporteur**

- (a) Be able to summarize in writing succinctly and rapidly;
- (b) Have a good command of the English language;
- (c) Be available for the duration of the Review Meeting;
- (d) Have no vested interests, either personal or national, in countries in his/her Country Group; and
- (e) Have knowledge of spent fuel management and radioactive waste management issues.

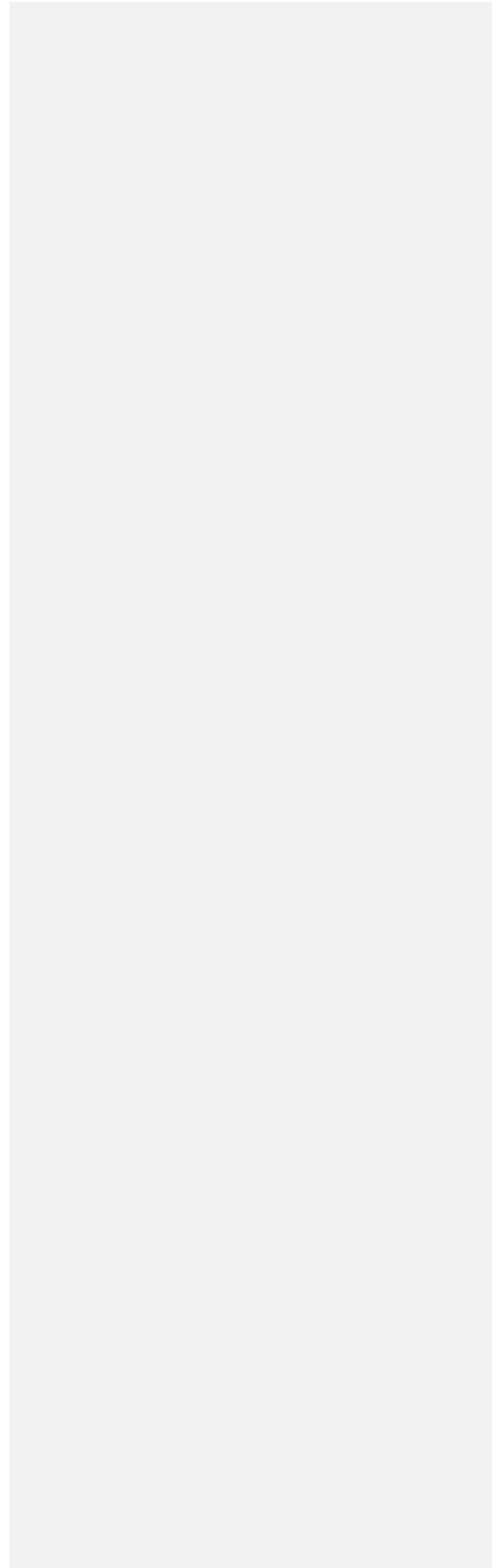
### **III.6. Co-ordinator**

- (a) Be able to extract, from a large volume of documentation, key issues that should be discussed at his/her Country Group sessions, and to advise his/her Country Group Chairperson accordingly in advance of the Review Meeting;
- (b) Be available for extensive work periods for some months before the Review Meeting;
- (c) Have knowledge of spent fuel management and radioactive waste management issues;
- (d) Be familiar with electronic database manipulation; and
- (e) Have access and ability to download and upload files on the Internet.

### **III.7. National Contacts**

It is desirable that National Contacts possess the following qualities:

- (a) Be available for contact and work between the Review Meetings;
- (b) Have a knowledge of spent fuel and radioactive waste safety issues;
- (c) Be familiar with electronic database management; and
- (d) Have good English-language skills.





## ANNEX 2

### **Common Understanding of the Terms “Good Practice”, “Area of Good Performance”, “Suggestion”, and “Challenge”**

#### **I. Good Practice**

A Good Practice is a new or revised practice, policy or program that makes a significant contribution to the safety of radioactive waste and spent fuel management. A Good Practice is one that has been tried and proven by at least one Contracting Party but has not been widely implemented by other Contracting Parties; and is applicable to other Contracting Parties with similar programs.

#### **II. Area of Good Performance**

An Area of Good Performance is a new or enhanced practice, policy or program for a Contracting Party that is recognized as an improvement of safety and is being implemented. An Area of Good Performance is a significant accomplishment for that Contracting Party, although it may have been undertaken by other Contracting Parties.

#### **III. Suggestion**

A Suggestion refers to an area for improvement. It is an action needed to improve the implementation of the obligations of the Convention.

#### **IV. Challenge**

A Challenge is a difficult issue for the Contracting Party. It may be a demanding undertaking (beyond day-to-day activities); or a weakness that needs to be remediated.

### **Summary of Topical Session, 24 March 2025**

#### **Knowledge Management Related to Long Term Management of Disused Sealed Sources, Radioactive Waste and Spent Fuel**

During the second week of the eighth Review meeting, a Topical Session took place on 24 March 2025, to discuss knowledge management related to long term management of disused sealed sources, radioactive waste and spent fuel. Dr Erica Bickford, Vice-President, served as Chair for the session.

During the session, four Contracting Parties made presentations concerning knowledge management related to a range of activities namely; remediation of legacy uranium mine sites, management and disposal of radioactive sources and disposing of high-level waste and spent fuel. The Contracting Parties making presentations and the titles of their presentations were:

China: Radioactivity Management of Legacy Uranium Mining in China

This presentation summarised treatment technologies for radioactive wastewater in China's uranium mines and more specifically, for control of uranium in underground water during operations, uranium tailings capping, groundwater remediation and scrap metal decontamination. New technologies are being steadily adopted in collaboration with international counterparts aiming to enhance radiation safety within the uranium mining industry in the country.

Morocco: Knowledge management for radioactive waste and disused sealed sources program - Regulatory perspective-

This presentation outlined the legal basis, key elements and processes for knowledge management related to radioactive waste management at the regulatory body (AMSSNuR), based on the IAEA safety standards and supporting documents. The importance of carrying out capacity building, competency mapping and skills mapping for staff was highlighted, together with a willingness to share experience with other countries.

Ghana: Knowledge Management in the Implementation of the Borehole Disposal System of Disused Sealed Radioactive Sources in Ghana

This presentation outlined the knowledge management framework for development of the first borehole disposal project in Ghana. It highlighted the key steps of knowledge identification, knowledge acquisition and knowledge management together with some of the key technical, organisational and cultural challenges. Effective knowledge management was pointed out as one of the key reasons for selection of this technology with attention to capacity building, documentation, digitalization and international collaboration.

## Finland: Knowledge Management for Regulator Licensing of a Deep Geological Repository for Spent Fuel and/or High-level Radioactive Waste: Onkalo

This presentation consolidated the experience and challenges of the national regulatory authority (STUK) in maintaining active knowledge management for the licensing of the first deep geological disposal of spent fuel and high-level waste. It highlighted the importance of development of the regulator's experts, their training and succession planning on a regular and ongoing basis, and the challenge of maintaining knowledge and expertise during the operational period of the repository, which is less resource-intensive than construction and initial licensing.

Key themes that emerged during the presentations and panel discussions included:

- Recognition of the very long timeframes for managing radioactive waste and remediation of legacy sites, of the order of hundreds to thousands of years. The importance of having a clear understanding of the need for development and implementation of effective knowledge management as part of the overall management system.
- All presentations emphasised the importance of developing skills, regular review and maintaining of an overview of skills requirements, staff training and maintaining expertise for long timeframes, correlating to the long term management of radioactive waste. These aspects need to be embedded in the management system. The mapping of staff knowledge and skills has proved an effective tool. In terms of knowledge retention, mentoring of younger professionals by experienced staff is valuable as is formal measurement and testing of knowledge and skills acquisition. Periodic safety review processes were recognised as valuable for knowledge acquisition and transfer, the timings of such reviews is important in this regard.
- Ensuring adequate documentation and long term preservation of knowledge (e.g. applying tools such as databases) that will facilitate decision making of regulators, operators and other stakeholders in the long term. It was noted that predicting data and information can be important. Post closure knowledge retention is also of high importance. Approaches to archiving have to be carefully considered both in terms of what to store and for how long. The safety case can inform on the importance of knowledge and data to be preserved.
- In the question-and-answer sessions for the panels, there was interest from Contracting Parties in how to ensure durability of knowledge management programmes over time; the role of knowledge management in communicating with the public around long term legacy waste remediation sites and radioactive waste storage sites; methods for developing and evaluating staff competencies; effective processes for tacit knowledge transfer from staff retirements and attrition; and intellectual property considerations for maintaining documentation for facility licensing.
- All presentations encouraged knowledge sharing to facilitate safe long-term management of disused sealed sources, radioactive waste, and spent fuel in line with international safety standards and recommendations.