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The Secretariat of the International Atomic Energy Agency (IAEA) presents its compliments to the Ministries of Foreign Affairs of Member States and has the honour to refer to the first Review Meeting of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (the Joint Convention) which was held from 3 to14 November 2003 at the Headquarters of the IAEA in Vienna, Austria. As required by Article 34 of the Joint Convention, the Contracting Parties adopted by consensus a document (the Summary Report) addressing issues discussed and conclusions reached during the Review Meeting.

The Contracting Parties during the Review Meeting agreed that it would be highly desirable to have more Member States become Contracting Parties to the Joint Convention. It was agreed that whilst the safety of spent fuel is of interest mainly to Member States with nuclear power reactors, the safety of radioactive waste is important to all States. In this context, the Contracting Parties requested the Secretariat to distribute copies of the Summary Report to all Member States as an indication of the potential benefits to a State from being party to the Joint Convention.

The IAEA Secretariat is available to provide further information, advice and assistance to Ministries with regard to the Joint Convention and, in particular, concerning the procedure to be followed for ratification.

Further information can be obtained from the contact point in the IAEA Secretariat, Mr. Gordon Linsley (Email: G.Linsley@iaea.org).

The Secretariat of the International Atomic Energy Agency avails itself of this opportunity to renew to the Ministries of Foreign Affairs the assurances of its highest consideration.

14 January 2004

Attachment

JC/RM.1/06/Final version

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

First Review Meeting of the Contracting Parties 3 to 14 November 2003 Vienna, Austria

SUMMARY REPORT

Laurence Williams President
Diana Clein Vice President
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Vienna, 14 November 2003

Introduction

1. The operation of nuclear reactors whether for the purposes of electricity production or research, generates spent nuclear fuel and radioactive waste. Other activities also generate radioactive waste. The recognition by the international community of the importance of ensuring the safety of the management of spent fuel and the safety of the management of radioactive waste, led to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Convention). The Joint Convention was adopted on 5 September 1997 and entered into force on 18 June 2001.

2. The first Review Meeting of the Contracting Parties pursuant to Article 30 of the Convention was held at the Headquarters of the International Atomic Energy Agency (IAEA), being the Secretariat for the Convention, from 3 to 14 November 2003. The President of the Review Meeting was Mr. Laurence Williams, Her Majesty's Chief Inspector of Nuclear Installations in the United Kingdom.

3. Thirty two Contracting Parties and one Contracting State participated in the Review Meeting, namely: Argentina, Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Japan, Korea, Latvia, Luxembourg, Morocco, Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom, and United States of America.

4. Japan was a late ratifier. However, it had produced and distributed its National Report and asked questions on the reports of other Contracting Parties. As Japan had only just missed the deadline for the Review Meeting it had asked to participate fully in the Review Meeting. Under the rules, a late ratifier can be allowed to participate with the agreement of the Contracting Parties at the Review Meeting. The Contracting Parties agreed to Japan's request at the plenary meeting on 3 November.

5. The objectives of the Convention are:

i) to achieve and maintain a high level of safety worldwide in spent fuel and radioactive waste management, through the enhancement of national measures and international co-operation, including where appropriate, safety-related co-operation;

ii) to ensure that during all stages of spent fuel and radioactive waste management there are effective defences against

potential hazards so that individuals, society, and the environment are protected from the harmful effects of ionising radiation now and in the future, in such a way that the needs and aspirations of the present generation are met without compromising the ability of future generations to meet their needs and aspirations; and

iii) to prevent accidents with radiological consequences and to mitigate their consequences should they occur during any stage of spent fuel or radioactive waste management.

6. To deliver these objectives the Convention adopted a 'Review' process. Article 30 of the Convention requires that Contracting Parties should hold meetings for the purpose of reviewing the reports submitted as required by Article 32. The Review Meeting is the opportunity for the Contracting Parties to discuss the National Reports submitted by other Contacting Parties and to seek clarification of such reports.

7. Article 32 requires Contracting Parties to submit a National Report to each review meeting of the Contracting Parties. The Article requires the National Report to address the measures taken to implement each of the obligations to the Convention. Article 32 also specifies the topics that Contracting Parties are expected to address in the National Reports submitted pursuant to the Convention. The document entitled "Guidelines Regarding the Form and Structure of National Reports" (INFCIRC 604) gives further guidance.

8. The Contracting Parties' National Reports were distributed in advance of the meeting to enable other Contracting Parties to review them and seek clarification through written questions and answers. This first review meeting gave the opportunity for Contracting Parties to present their National Reports including their response to the written questions and respond to the questions put to them by other Contracting Parties in the discussions at the Meeting. It was also an opportunity to review the measures being taken by Contracting Parties to implement the obligations of the Convention.

9. Among the Contracting Parties, there was a wide spectrum of size and scope of nuclear programme. There were Contracting Parties with major nuclear power programmes, states with large amounts of legacy wastes, some with large quantities of uranium mine tailings, and others with only hospital waste and disused sealed sources. The National Reports therefore varied widely in size, scope and complexity. Most Contracting Parties followed the format detailed in INFCIRC 604 for their National Reports, but a few did not.

10. This summary report of the Review Meeting is structured so that paragraphs 11-67 reflect the discussions that took place with respect to either specific articles or groups of articles of the Convention.

Observations on the Achievement of the General Objectives of the Review Process

11. The Contracting Parties recalled that the success of the review process in the Joint Convention depended upon several factors. The first was that the Contracting Parties had prepared National Reports. The second was that the Contracting Parties had reviewed in detail other countries' National Reports in order to see how other Contracting Parties were meeting the objectives, and implementing the obligations, of the Convention. The third was the opportunity to put written questions to each country, in order to elicit further important information on areas where there was uncertainty. The fourth was that Contracting Parties had responded diligently to those questions. Finally, to complete the process Contracting Parties had attended the Review Meeting, made detailed and comprehensive presentations on how they were managing spent fuel and radioactive waste in relation to the obligations of the Convention, participated in discussions which were in general meaningful, probing, constructive, open, helpful, philosophical, and when needed, explored issues of significant importance.

12. It was generally agreed that the review process worked well. The production of National Reports which included self-assessment by the Contracting Parties was seen as a positive initiative that helped bring a focus to the safety of spent fuel and radioactive waste management activities. The reports enabled Contracting Parties to not only take stock and to review how others were implementing the articles of the Convention, but also to share good practice. The opportunity to put written questions to Contracting Parties on their reports was again valued, as were the written responses. There was a general observation that some questions were put simply to gain admittance to the Country Group presentations and this sometimes caused additional work for the receiving Contracting Party as in some cases the answer to the questions were already in the written report.

13. An Open Ended Group was established to propose ways of improving the review process and to address, inter alia, the issues that had been raised at the Organizational Meeting and the meeting on 22 and 23 September 2003.

14. The Contracting Parties observed that the National Reports in most cases provided ample information on the measures being taken to implement the obligations of the Convention. However, it was observed that, as this was the first review under the Convention, it was very much a learning process and that not all National Reports contained sufficient practical information on the implementation of their programs. For the next Review Meeting, the Contracting Parties agreed to improve their reports.

15. Contracting Parties' presentations were in general of high quality, informative and showed that considerable thought and preparation had been put into them. The question and answer sessions were, however, variable and

in some instances, the discussion during the Review Meeting lacked substance. It was accepted that for the next Review Meeting, a better way of encouraging discussions, especially in relation to the implementation of the Convention's obligations and the identification of good practices and areas for improvement, will be needed to ensure that best use is being made of Contracting Party resources. The Plenary sessions were open and constructive. Issues of special interest were identified and discussed. The positive participation at the Plenary sessions demonstrated the strong commitment of each Contracting Party to the Review Process and to the objectives of the Convention.

16. As a final general observation, the Contracting Parties noted with satisfaction that participating in the process of the Convention and especially in the Review Meeting had been valuable. The Contracting Parties also noted that their participation in the production and review of reports, the questions and answers exchanged and the presentations, had provided them with a unique insight into the status of spent fuel and radioactive waste management activities across the complete spectrum of programmes, from large to very small.

Observations on factors of special interest

17. During the Country Group sessions, many issues of special interest to both spent fuel and radioactive waste management emerged:

- there were several comments on clearance levels for the disposal or reuse of materials with very low levels of radioactive contamination. It was agreed that renewed efforts should be made to get international consensus on this issue;

- there was some discussion on how to manage mixed wastes, i.e. radioactive and other hazardous materials. It was suggested that this would be a suitable area for additional guidance;

- there were several comments on the scope of the Convention in relation to uranium mining and milling wastes and wastes from the use of other naturally occurring radioactive materials. Some Contracting Parties had included these in their reports, others had not. This issue was discussed in the plenary session;

- there were several other comments on the scope of the Convention in relation to the storage of spent fuel at the reactor in which it had been irradiated. Some Contracting Parties had included these in their reports, others had not. This issue was again discussed in the plenary session;

- there was some discussion on the development and use of effective safety assessment tools for radioactive waste facilities. It was acknowledged that for some applications the tools available were adequate but for others, there was scope for further development, possibly through improving the IAEA Safety Standards;

- there was some discussion on the criteria for the design life of facilities for the storage of spent fuel and radioactive waste, pending decisions on future management including disposal. Some Contracting Parties indicated that the storage lifetimes would depend on their national policies;

- there was a growing recognition of the need for the development and implementation of integrated decommissioning and radioactive waste management plans. Such plans should be comprehensive. They should take into account all radioactive waste streams, including wastes arising from decommissioning. They could be presented, for instance, in the shape of a matrix providing for each type of waste the associated management channel (existing or under construction). Their purpose would be (a) to identify possible gaps in the current practices, and (b) to prepare and enable effective decisions on the ultimate management solutions for all streams. Several Contracting Parties reported on progress in this area and regarded such plans as crucial to the delivery of the successful decommissioning of nuclear sites and making them safe for future generations;

- there were several comments made on the long term storage of spent fuel. Some Contracting Parties favoured central storage facilities while others favoured storing spent fuel at the power stations pending the availability of a national disposal facility. Contracting Parties considered either practice to be acceptable;

- there were large variations reported in the status of national plans for the ultimate management solution of spent fuel and radioactive wastes. Some Contracting Parties had disposal facilities for certain categories of waste, others have facilities under development or construction, others have consultation programmes underway after which decisions will be made, others have no existing plans for disposal, some Contracting Parties expressed interest in exploring possible regional solutions for the management of radioactive waste, and at least one country sends its wastes to another. It was agreed that the Convention and the Review Meeting had given Contracting Parties the opportunity to exchange views and examine areas of good practice in this important area.

Observations on policies and practices

18. As required by Article 32 of the Convention, Contracting Parties reported on their various national policies and practices concerning management of spent fuel and radioactive waste and the criteria used to define and categorize radioactive waste.

19. In the area of spent fuel management, policies and practices varied from storage pending political decisions on long term strategies, to the development of direct disposal in deep underground geological facilities. Some Contracting Parties' spent fuel management policy included reprocessing as a means of recovering uranium and plutonium and treating only the residual fission products as radioactive waste. At present all Contracting Parties having spent fuel, either store it at the power stations, research reactors, in facilities at other locations, or reprocess it. Spent fuel is currently stored under water in ponds or in dry casks or vaults. Spent fuel storage time varies depending on the Contracting Party's policy but all agreed that in the interim until disposal facilities are available or long term strategies have been implemented, spent fuel had to be stored in safe and secure conditions so that it can be retrieved safely.

20. In the area of radioactive waste management, practices and policies varied considerably. Contracting Parties use different criteria for classifying radioactive waste. There is a wide variety of radioactive waste storage and disposal facilities and practices. The general policy in all Contracting Parties is to minimise the production of radioactive waste, although many Contracting Parties have significant radioactive waste legacies to deal with.

21. Where there are disposal facilities available, such as those for low or very low level wastes, the general policy adopted by Contracting Parties is to have minimum storage time, and if possible, directly dispose of the waste as it arises. Many Contracting Parties have disposal facilities, especially for low level radioactive wastes, which are licensed or regulated by appropriate regulatory authorities.

22. Discussion of the issue of low level waste management led to several comments on clearance levels and practices, as highlighted above. Some Contracting Parties have clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes. Other countries have, in addition to general criteria, a case-by-case approach to clearing radioactive wastes. There were questions on the criteria for disposal and it was agreed that further guidance could be developed as part of the IAEA Safety Standards programme.

23. While some Contracting Parties had overall solutions for the management of intermediate or high level wastes, most countries were still considering what approaches to follow and a few have not initiated this important process.

Deep geological disposal for spent fuel, other high level wastes, and for intermediate level wastes, was favoured by some Contracting Parties. Some Contracting Parties committed to informing the next Review Meeting of progress in long-term management plans. Others preferred to keep the option open and some were in the process of public consultation on possible radioactive waste management strategies, recognizing that an ultimate solution must be found All Contracting Parties believed that public consultation on radioactive waste management strategies was not only a good practice to follow, but was also essential for the development of a successful and sustainable policy.

24. There was some discussion on policies relating to the regulation of radioactive waste management activities. Practices and policies differed markedly. In some Contracting Parties, the regulation of nuclear safety and radioactive waste management was carried out by a single regulator. In others, there were different regulators for each activity. The regulation of disposal of radioactive waste was, in some Contracting Parties, the responsibility of the environmental protection regulators and not the safety regulators. All Contracting Parties accepted that there was a need to have good communication through such things as a memorandum of understanding between the different regulators. All felt that a clear allocation of responsibilities was essential. There were some discussions on the independence of the regulator and it was clear that in the radioactive waste area not all Contracting Parties have regulators who are independent of those who produce or manage radioactive waste, or their sponsoring Ministries. All agreed that the independence of the regulatory function should be in accordance with Article 20 para 2 of the Convention.

25. Several Contracting Parties highlighted the advantage of having independent committees to advise their Governments on the development of radioactive waste management policy.

26. Contracting Parties also felt that the long term storage of spent fuel or radioactive waste could impose an undue burden on future generations. All Contracting Parties agreed that facilities for storage must be adequately controlled to ensure safety and security.

27. Many Contracting Parties reported on the status of their policies concerning the provision of financial assurances for future decommissioning, long-term monitoring, and disposal. Most of these policies are still under development, and Parties agreed that attainment of the obligations under Article 26 should be an area for discussion at future Review Meetings.

Observations on the scope of application

28. There was some variation between Contracting Parties as to what they had included within the scope of their National Reports. It was noted that some Contracting Parties excluded from their National Reports the safety of spent fuel in storage at the nuclear power plant where it was generated. Some Contracting Parties with known wastes that originated from naturally occurring radioactive materials (NORM) considered the material as within the Convention for their purposes and included it in their National Reports, while others did not.

29. Some countries reported the presence of uranium mining and milling wastes. In one case, the Contracting Party excluded further details from its report because it was of the opinion that the quantities were so small as to be insignificant. In another, although only a partial report was presented to this Review Meeting since uranium mining and milling wastes in that country are regulated in a different way from other parts of the nuclear fuel cycle, the Contracting Party undertook to present a full report at the next Review Meeting.

30. Several countries considered reprocessing as part of spent fuel management and therefore within the scope of the Convention.

31. One Contracting Party declared its military wastes to be within the scope of the Convention.

Observations on inventories and lists

32. Contracting Parties generally reported adequate methods of maintaining inventories of radioactive wastes and spent fuel, with some having well-developed electronic data bases that were regarded as good practices. Some Contracting Parties, had arrangements for accounting for disused sealed sources that were not as well developed and it was agreed that more attention should be focused in this area and other radioactive wastes from small users. There were examples of good practice and the Contracting Parties agreed that more should be done to help small users to acquire the necessary knowledge and skills. With respect to sealed sources, the Contracting Parties noted the adoption by the General Conference of the IAEA of the Code of Conduct that applies to the management of sources.

33. Some Contracting Parties regarded the detailed locations and local inventories of spent fuel and radioactive wastes as information that is no longer in the public domain because of security considerations. The Contracting Parties recognized the dangers of releasing too much detail in these areas, but suggested that for the purposes of the Convention more

guidance could be given. This would enable National Reports to contain the information necessary for a meaningful review process without compromising national security.

Observations on legislative and regulatory systems

34. The legislative and regulatory systems that were described vary enormously. In the case of some Contracting Parties, legislation was either pending or recently enacted, with the result that the regulatory system in those countries is still incomplete, or in the process of being improved from a previous structure to a new one. In the case of some Contracting Parties, there were different regulators for nuclear safety, radiation protection, transportation, security and environmental protection. In some cases, the different regulators have their jurisdictions specified in such a way that while they interface, they do not overlap. In others, overlap exists and there is the possibility that inconsistent or conflicting requirements could be placed on the operator. In Contracting Parties where there was overlap, it was stated that measures were in place, such as memorandums of understanding, to promote cooperation and collaboration among the regulators so that mutually consistent and compatible decisions were taken.

35. In the case of a few Contracting Parties, concern was expressed about the independence of the regulator, especially in relation to the regulation of radioactive waste management activities. The Contracting Parties agreed that, in accordance with Article 20, para 2, measures must be in place to ensure the effective independence of the regulatory function.

36. Several Contracting Parties commented on the resources needed to provide effective regulation. The Contracting Parties agreed that in line with Article 20 (1) of the Convention, Governments should ensure that the regulatory bodies have adequate resources.

Observations on Articles 21-24 (General Safety Provisions)

37. There was general agreement that Contracting Parties have in place clearly understood responsibilities that are in line with the provisions of Article 21.

38. The situation with respect to Article 22 was less clear. Many countries are experiencing difficulties in assuring an adequate on-going supply of qualified staff. Many reasons exist for this but one has been a generally negative view of the long-term career opportunities in the nuclear industry. Contracting Parties agreed that it was important to address the issue by stressing not only the importance of effectively managing decommissioning and the

management of radioactive waste to current and future generations, but also the technological challenges that industry and regulators will face in the coming decades.

39. In some instances, a lack of financial resources has resulted in the regulatory body being understaffed. Contracting Parties agreed that if this situation does not change, it will have a significant negative effect not only on the safety of nuclear facilities, but also on public confidence.

40. All Contracting Parties agreed that the safe and effective management of spent fuel and radioactive waste required planning, coordination and adequate financing. Although some examples of good practice exist, of the setting up of central organisations to manage spent fuel and radioactive waste, including arranging for financial assurances to be in place for decommissioning and long-term storage and disposal, it was agreed that this is a subject which is still under development in many countries. Some Contracting Parties had opted for the use of segregated funds to finance decommissioning and the consequential management of radioactive waste. Others did not have provision for such segregated funds and opted to fund such activities through general taxation or fees charged by the regulatory body.

41. All Contracting Parties agreed that the responsibility for the safety of spent fuel management or radioactive waste management facilities rests with the licensee.

Observations on the Safety of Decommissioning (Article 26)

42. Discussions on decommissioning of nuclear facilities centred around the current status of decommissioning activities. In the case of nuclear power plants and research reactors, some Contracting Parties had opted to commence decommissioning as soon as the reactor was finally shut down. These Contracting Parties believed decommissioning should be completed as soon as possible while the expertise existed. Other Contracting Parties opted for delayed decommissioning based on three stages. The first stage involved defueling of the reactor. The second phase allowed dismantling of some plant and equipment to put the reactors into safe storage. The third phase saw the complete dismantling of the reactors. There was also variability of the time for safe storage. One Contracting Party had opted for a 40 year period, others longer. The reasons for delay in dismantling were in relation to the need for radioactive decay to reduce radiation exposure to workers, financial provisions, and in some cases the lack of disposal facilities into which decommissioning waste could be placed.

43. There was some confusion over what was meant by decommissioning in the context of the Convention. Some Contracting Parties thought decommissioning only applied to nuclear power plants, whilst others clearly

applied the concept to all nuclear installations and nuclear facilities. It was agreed that at the next meeting National Reports should address the decommissioning of all nuclear installations and facilities as defined in the Convention.

44. Contracting Parties now engaged in decommissioning nuclear facilities agreed that successful decommissioning depended upon a number of key factors. The first was the need to make adequate financial provision to cover the costs. Some Contracting Parties had excellent arrangements to ensure decommissioning could be financed, others recognised the need and were exploring the best way of doing this to suit their national situation. The Review Meeting offered some clear examples of good practice in this area. The second was the need to ensure that adequate records were kept by the operators, of inventories and activities, throughout the operating period of the facility. The third was the need to think about, and to build in, decommissioning requirements into the design of a nuclear facility. The fourth was to ensure good planning for decommissioning. The fifth, was to make provisions for the disposal of waste produced in the decommissioning process. Some Contracting Parties required the operator to produce a pre-decommissioning safety case to show how decommissioning would be carried out safely. Other Contracting Parties applied the concept of periodic safety reviews to decommissioning and safe storage to ensure the safety of the facility through its lifetime.

Observations on emergency preparedness (Article 25)

45. Contracting Parties reported on the degree of planning to respond to emergency situations. In the case of spent fuel these plans were usually based on plans for responding to nuclear reactor emergencies, adapted and modified to be appropriate to the different level of risk to the public. In the case of nuclear facilities containing radioactive waste, emergency plans reflected the nature of the hazard. All Contracting Parties agreed that it was prudent to have and maintain appropriate emergency plans.

46. Many Contracting Parties indicated that the responsibility for emergency planning was clearly allocated to a specific department or agency, and some countries reported on a rigorous schedule of emergency exercises. Both were regarded as good practices that others might well choose to follow. Some Contracting Parties reported on the need to have an adequate number of well-trained staff to test and implement their emergency plans.

47. In some Contracting Parties the nuclear safety regulator tended to have responsibility for regulating emergency preparedness at licensed sites, and the environment regulators took the lead for emergencies at non licensed sites. In other Contracting Parties, responsibility for emergency preparedness at all sites lay with other competent authorities. Contracting Parties agreed that it was important to have consistent arrangements for all emergencies involving radioactive materials to avoid confusion. Some Contracting Parties

had adopted the International Nuclear Event Scale for use in the reporting of incidents at spent fuel and radioactive waste facilities. This was regarded as a good practice.

Observations on the Safety of Spent Fuel Management (Articles 4 to 10)

48. Contracting Parties having spent fuel, either store it at the power stations, research reactors, in facilities at other locations, or reprocess it. Spent fuels are currently stored under water in ponds or in dry casks or vaults. Spent fuel storage time varies depending on the Contracting Party's policy but all agreed that in the interim, until disposal facilities are available or long term strategies have been implemented, spent fuel had to be stored in safe and secure conditions so that it can be retrieved safely.

49. Those Contracting Parties following the storage policy recognised the need to provide sufficient storage capacity to receive the ongoing generation of spent fuel. Those Contracting Parties having their spent fuel reprocessed elsewhere either have, or are in the process of constructing, storage facilities to receive high level conditioned waste back from the reprocessing country.

50. Many Contracting Parties have plans in various stages of development to construct deep underground geological disposal facilities for spent fuel. Some are at an advanced stage with experimental facilities under construction and detailed licensing arrangements in place. Others are focussing on the conditioning of spent fuel that will be required for eventual disposal.

Observations on the Safety of Radioactive Waste Management (Articles11 to 17)

51. Contracting Parties agreed that the management of radioactive wastes, as reported at this Review Meeting, was currently being carried out safely. However, in many instances, it was recognized that the current safe practices would not necessarily be sufficient in the future, and therefore there is a wide spectrum of activities relating to future actions. The importance of minimizing the generation of waste at the source, was discussed and it was agreed that there would be benefit in providing more detail in subsequent reports in this area.

52. Some Contracting Parties intend to continue to store radioactive waste for prolonged periods of time, with regulatory control being maintained over the facilities as appropriate. Discussions concerning perpetual institutional control concluded that as one component of a multi function system of control it could be acceptable and not considered as an undue burden on future generations. Others plan to develop disposal facilities, to which currently stored waste would be shipped. Although disposal, by definition, excludes the intention of retrieval, there is an increasing interest in the development of radioactive

waste repositories which will enable retrieval of wastes, at least to a limited degree or for a limited period of time.

53. Several Contacting Parties' reports showed the different ways in which radioactive waste is classified. Similarly there were differences in the way Contracting Parties defined the criteria for waste disposal. Several Contracting Parties commented on the conditioning of radioactive waste for either storage or disposal. All Contracting Parties agreed that for safe storage, radioactive waste had to be conditioned to a high quality standard to ensure safety and stability during storage, and retrieval. Given that the storage time could be many decades, the ability to safely retrieve waste was considered essential so as not to place unnecessary burdens on future generations.

54. Where disposal facilities were available as in the case of low level waste, Contracting Parties generally opted for immediate disposal with minimum surface storage. Where disposal facilities for intermediate or high level wastes were not available, Contacting Parties treated and stored waste in a wide variety of facilities. This highlighted the need to develop international standards for such activities and facilities to enable consistent design, operation and regulation.

55. Several countries reported on the problems associated with remedying legacy situations resulting from practices that were in existence before today's knowledge, societal expectations and regulatory controls existed. In many instances this is an ongoing area of work, on which reports to future Review Meetings should be made. However, the work some Contracting Parties were doing on the development of integrated radioactive waste and decommissioning plans to enable detailed site restoration was seen as good practice.

56. Increasingly, Contacting Parties reported on the importance of public consultation on long-term radioactive waste management. The old philosophy of decision making based on 'decide, announce and defend' is no longer seen as appropriate. More involvement of the public through consultation on options and in the decision making process is now seen as the way forward. This is especially true in relation to radioactive discharges to the environment and the disposal of solid radioactive wastes. It is also becoming increasingly important in the consideration of options for decommissioning, the treatment and storage of waste. The siting of radioactive waste facilities is another area where Contracting Parties regarded public consultation as important. Some Contracting Parties reported the development of partnerships between operators and local community authorities. This involvement of local populations is seen as a good practice among Contracting Parties.

57. There was no common approach to managing uranium mining and milling wastes. In some Contracting Parties, these wastes are in the legacy category. The fact that they have already been deposited, and their large volume, renders remediation very difficult.

58. Some Contracting Parties reported on the considerable benefit that was derived from involvement in international programmes such as peer reviews carried out by international organisations such as the IAEA and the OECD/NEA.

59. All Contracting Parties that were questioned on the subject of whether their regulatory framework took into account chemical toxicity of waste as well as radiological toxicity responded affirmatively. This is considered to be a good practice.

60. It was noticeable that with the exception of a few Contracting Parties, there was little discussion on national practices concerning radioactive discharges to the environment. Contracting Parties' National Reports for the next Review Meeting should give more coverage of this topic.

Observations on Transboundary Movement (Article 27)

61. Most of the reported transboundary shipments, concerned spent nuclear fuel. However, the number of transboundary shipments of radioactive waste was likely to increase as waste from reprocessing was progressively returned to customers. In all cases transboundary movements were seen as being well regulated. Contracting Parties involved with transboundary movements of spent fuel and radioactive waste reported robust arrangements and a very high safety record.

62. One Contracting Party expressed reservation over the requirement in Article 27.1 that a destination country must provide a statement of competence, and agreed that Review Meetings offered a good opportunity to discuss such items.

63. Several Contracting Parties reported that their legislative and regulatory requirements prohibited the importation of radioactive wastes except for disused sealed sources or the recovery of usable materials.

Observations on Disused Sealed Sources (Article 28)

64. Contracting Parties reported a wide range of approaches to the management of disused sealed sources. Some Contracting Parties had well established licensing and registration processes in place to maintain and improve safety and security. Other Contracting Parties were developing or introducing new control arrangements. Contracting Parties also reported a range of abilities to record inventories of sealed sources. In some cases, databases were well developed, and in others non-existent. In most cases, disused sealed sources were in storage, with disposal plans in development for various categories of sources. Some Contracting Parties regarded the return of disused sources to the manufacturer to be a good practice.

65. Several Contracting Parties reported on the requirement for adequate financial provisions to ensure the safe and secure storage of disused sources.

This whole area of the management of disused sealed sources would benefit from additional detail in the National Reports for the next Review Meeting.

Observations on Planned Activities to Improve Safety

66. Many Contracting Parties reported planned activities that will improve safety of the management of spent fuel or the safety of the management of radioactive wastes. Planned activities include the development of improved regulations; the development of disposal facilities and long-term management strategies for spent fuel and radioactive wastes; the development of improved control over sealed sources; further work to address legacy situations and to perform needed site remediation; improvements to existing storage facilities or the construction of new ones to modern standards, improvements to existing disposal facilities, and the continuation of a variety of safety-related research programmes.

Issues arising from the Plenary and from the Open Ended Group on Procedural and other Matters

Regional Repositories

67. There was a discussion on issues of the disposal of spent fuel in countries with only research reactors or small nuclear power programmes and the long-term management of radioactive waste in small countries without nuclear power programs. The possibility of a solution based upon regional disposal facilities was discussed. Contracting Parties indicated that regional solutions would depend upon a co-operative approach, but, it was important that the search for such a solution should not jeopardize the ongoing national programmes.

Conduct of The Review Process

68. Contracting Parties discussed the purpose of the Country Group review meetings. This main issue of interest was the extent to which the review examined the Contracting Parties' implementation of the obligations of the Convention. It was agreed that it was not useful to aim at overall judgements on how well Contracting Parties met their obligations. It was for each Contracting Party, through its National Report, to carry out a self assessment and for the other members of the Country Group to ask questions in order to seek confidence in that self assessment, identify improvements, and share good practices, so as to further the objectives of the Convention.

Content of National Reports

69. Contracting Parties commented upon the balance between the description of institutional measures and the reporting of practical activities in some National reports. There was recognition that, as this was the first time that reports had been produced under the Convention, there would be an emphasis on explaining the regulatory and institutional frameworks.

Contracting Parties agreed that National Reports for the next Review Meeting should be more focused on the practical activities being carried out to meet the objectives, and the implementation of the obligations of the Convention.

Scope of the Convention

70. The discussions in the Country Groups highlighted inconsistencies in the scope of National Reports and this was considered to be a result of differing understandings of the scope of the Convention. Several areas were identified, namely: naturally occurring radioactive materials (NORM) outside the nuclear fuel cycle; uranium mining and milling wastes; the storage of spent fuel at nuclear power stations; the management of radioactive waste at nuclear power stations, the reprocessing of spent fuel, and the treatment of waste arising from military programs. After discussion, it was agreed that all of the above were adequately addressed in Article 3 of the Convention. In the case of NORM outside the nuclear fuel cycle it was a matter for the Contracting Party to decide if it wished to include it in its National Report. In relation to uranium mining and milling wastes, Contracting Parties with such wastes agreed to include them in their National reports. On the management of spent fuel and radioactive waste at Nuclear Power Stations it was agreed that overlap with the Convention on Nuclear Safety was acceptable and that Contracting Parties should include such activities in their next National Report. In the case of reprocessing, it was agreed that it was a matter for the Contracting Party to decide if it wished to include of reprocessing in its National Report. In the case of military wastes, it was agreed that wastes within military programs are not within the scope of the Convention, but for wastes arising from military programs and transferred to civil programs, the Convention applies.

Improving the Review Process

71. The Contracting Parties, in the context of improving the review process, agreed on a number of changes to the Rules of Procedure and Financial Rules, as well as to the Guidelines Regarding the Review Process. These are detailed in the President's Report of the Meeting.

Other Topics

72. On the subject of clarifying guidelines to better reflect the duties of officers, prior to and during a Review Meeting, and their necessary qualifications, the meeting agreed to request the Secretariat to draft the necessary documents. It was also agreed that the General Committee would function during the period between this Review Meeting and the Organizational Meeting for the second Review Meeting as a body to whom such drafts should be referred for comment. Contracting Parties recognized the need to ensure that the experience gained in this Review Meeting was not lost and asked that, for the next Review Meeting, the nomination of officers for election should take this into account.

73. On the subject of using electronic means for the distribution of documents, the meeting agreed that this would be optional for the next Review Meeting, but would be the preferred method. Some discussion took place on concerns that the mandatory use of electronic distribution could be a deterrent to some developing countries that might otherwise be disposed to ratifying the Convention. Contracting Parties agreed that such countries could use conventional means if they wished, and also that it was likely that some Contracting Parties, or the Secretariat, might be able to assist if desired.

74. The subject of Contracting Parties referring to the IAEA Safety Standards in their National Reports, questions, and answers, was discussed. Several Contracting Parties acknowledged the value of these documents, and that their quality had improved since the Convention was drafted. The meeting therefore agreed that, if a Contracting Party wished to refer to the IAEA Standards in demonstrating how it implemented the obligations set forth in the Convention, there would be no objection. Some Contracting Parties strongly objected, however, to any suggestion that reference to these documents would become a recommended, or preferred, approach since it was seen as being only one of several possible approaches to the preparation of a National Report.

75. The meeting agreed that it was highly desirable to have more member states become Contracting Parties to the Convention. There were a number of suggestions aimed at helping to achieve this.

a) The Secretariat should be requested to distribute copies of this Summary Report to all Member States;
b) The Secretariat should continue with its current efforts in this regard;
c) The General Committee could organize meetings of a limited nature, with the assistance of the Secretariat, in regions of the world in which there are countries potentially interested in becoming Contracting Parties; and
d) Contracting Parties should take every opportunity in bilateral and multilateral forums to promote the Convention.

76. It was agreed that the General Committee should examine possible changes to the “Guidelines Regarding the Review Process” in order to attempt to promote transparency of the Convention and its processes.

Conclusions and Recommendations

77. Contracting Parties concluded that the Review Meeting, the peer review process, and the Convention in general, had all already contributed significantly to the safety of spent fuel and radioactive waste management. Several Contracting Parties had made improvements to the management of spent fuel or to the management of radioactive waste in the two or so years leading up to the Review Meeting and acknowledged that in part those were prompted by the date of the Review Meeting. Several Contracting Parties

also acknowledged that the process of preparing a National Report and preparing for review by peers, although time consuming and expensive, had been beneficial for them.

78. Contracting Parties clearly demonstrated a strong commitment to the objectives of the Convention and to implementing the obligations of the articles. Some Contracting Parties were more advanced than others in the implementation of their radioactive waste and spent fuel management programs. The review process enabled all to observe good practice to help them improve their implementation. All Contracting Parties acknowledged that the Convention gave a real opportunity for them to focus in a holistic way on how they managed the safety of spent fuel and radioactive waste management. All Contracting Parties acknowledged the benefit from the international information exchange, as an important opportunity to learn from each other, especially in relation to good practice and to areas of improvement.

79. The Contracting Parties agreed that for the safe and successful management of spent fuel and radioactive waste, there needed to be a clear legal framework; a strong and independent regulatory function; competent licensees or operators; clear lines of responsibility and accountability; public involvement in the decision making process; adequate financial provisions; clear, integrated, plans on how spent fuel and radioactive waste will be managed to ensure continued safety into the future, and as this could be for decades, to avoid creating a legacy situation that would impose undue burden on future generations.

80. This was the first Review Meeting and given the wide scope and complexity of the Convention, the Contracting Parties concluded that while improvements can be made for future meetings, the overall process worked well. The Contracting Parties were also pleased to conclude that, while many situations unavoidably exist in which significant improvement is desirable, all were aware of their responsibilities and were taking measures to implement their obligations under the Convention. The Contracting Parties look forward to meeting again in three years time to share information on the progress they are making and further improve their safe management of spent fuel and radioactive waste.