

The Joint Convention on the Safety of Spent fuel Management and on the safety of Radioactive Waste Management: A UK Regulator's Perspective.

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ABSTRACT

The UK fully supports the objective of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management 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. The UK's Health and Safety Executive, through its Nuclear Safety Directorate (NSD), has been committed to the Convention since the initial negotiations to set up the Convention and provided the president of the first review meeting in 2003.

It would be wrong of any nation to believe that they have all the best solutions to managing spent fuel and radioactive waste. The process of compiling reports for the Convention review meetings provides a structured process through which every contracting party can review its provisions against a common set of standards and identify for itself possible areas of improvements. The sharing of reports and the asking and answering of questions then provides a further opportunity for both sharing of experience and learning.

The UK was encouraged by the spirit of constructive discussion rather than negative criticism that pervaded the first review meeting that provided an incentive for all to learn and improve. While, as could be expected of the first meeting of such a group, not everything worked as well as could be hoped for, all parties seemed committed to learn from mistakes and to make the process more effective. Lessons were learned from the Nuclear Safety Convention on the process of submitting reports electronically and the UK actively supported aims to use IAEA requirements documents as an additional focus for reports. This should, we hope, provide for even better benchmarking of achievements and provide feedback for improvements of the IAEA requirements where appropriate.

In summary, the UK finds the Joint Convention process to be a very positive one that can only improve the worldwide standards of safety in spent fuel and radioactive waste management.

INTRODUCTION

The United Kingdom has supported the Joint Convention from its inception, taking an active role in the negotiation of the Convention and was honoured to have its Chief Inspector of Nuclear Installations elected as president of the first review meeting. The Convention process expects the regulatory body to take a leading role in the process and the UK Health and Safety Executive, through its Nuclear Safety Directorate and in conjunction with the Environment Agency and the Scottish Environment Protection Agency, has fulfilled this commitment for the UK.[1] The following paper reports on the experience of the Health and Safety Executive in taking part in the Convention process with particular emphasis on the benefits that this has achieved.

UK PARTICIPATION IN THE JOINT CONVENTION

The UK was one of the original signatories of the Convention when it was opened for signature on 29 September 1997 and ratified the Convention on 12 March 2001 becoming one of the original contracting parties when it came into force on 18 June 2001.

Submitting a report and attending the review meeting is only a part of the work involved in supporting the aims of the Convention. The UK has, throughout, made an effort to fully support the aims by:

- Producing as comprehensive a report as it possibly can. While the first report may not have been perfect we have aimed to improve with the second report;
- Reading a significant proportion of the reports submitted and asking questions that we feel will further the aims – we asked 113 questions of 16 of the 32 contracting parties that submitted reports in the first review process;
- Answering questions asked as fully as possible – we answered a total of 197 questions from 17 contracting parties in the first review.

The UK was honoured when the contracting parties elected its then Chief Inspector of Nuclear Installations as president of the first review meeting.

BENEFITS OF PARTICIPATION

The Report

A significant benefit that may not be easily seen when starting out on the process is that the National Report to the Convention is in effect a National Handbook on everything to do with radioactive waste and spent fuel management. By having the report available on the Internet, much time is saved in responding to queries from members of the public and others by being able to refer them to the national report.

Since the first review meeting, we have used the national report and the presentation that was prepared for the review meeting as the basis for some training courses in radioactive waste management and decommissioning. The report is also available and used widely as a general reference by those working in the field.

We believe that having such a comprehensive report freely available can only help in building public confidence in the regulation of radioactive waste and spent fuel management and demonstrates our commitment to openness.

Self-Assessment Process and Developments in the UK

While few actions in the field of radioactive waste and spent fuel management can be directly ascribed to the UK's participation in the Joint Convention, the work done in preparing the UK's first report has been useful and influential in a number of developments, notably:

The Nuclear Decommissioning Authority

The Nuclear Decommissioning Authority (NDA) was set up in April 2005 to take strategic responsibility for the UK's nuclear legacy. In setting up the NDA, the UK was particularly mindful of the need to establish a clear allocation of responsibilities of the bodies involved in the different steps of spent fuel and of radioactive waste management. (Article 19 of the Convention) and to ensure that sufficient qualified staff and adequate financial resources are available for decommissioning (Article 26 of the Convention). The way that the NDA has been set up to achieve this can be seen in detail on its web site (<http://www.nda.gov.uk>) but in summary:

- The NDA's objective is to ensure that the 20 nuclear sites under its ownership are decommissioned and cleaned up safely, securely, cost effectively and in ways that protect the environment for this and future generations.
- It will lead the development of a unified and coherent decommissioning strategy, working in partnership with regulators and site licensees to achieve best value, optimum impact on local communities, and the highest environmental standards.
- It will aim to deliver a world class programme of safe, cost-effective, accelerated and environmentally responsible decommissioning of the UK's civil nuclear legacy in an open and transparent manner and with due regard to the socio-economic impacts on our communities.
- The NDA is responsible for ensuring that there is an appropriately skilled workforce available to carry out decommissioning and clean up activities, to ensure that good practices are shared between contractors and to encourage innovation. In this respect it plans to identify the skills and workforce requirements necessary to deliver its objectives and to work with others to look at the potential for a nuclear institute; a national nuclear skills academy; a national nuclear laboratory; and a new technology centre at Sellafield.

Review of Radioactive Waste Management Policy

One area that the UK has been lacking in for some time is a clear position on the ultimate fate of intermediate level radioactive wastes (Article 32 of the Convention). In 2002 the UK Government set up the Committee on Radioactive Waste Management (CoRWM) as an independent committee to review the options for managing those UK radioactive wastes for which there is no agreed long-term solution, working in an open, transparent and inclusive manner, and providing an opportunity for members of the UK public and other key stakeholder groups to participate. CoRWM is due to make its recommendations to the UK Government in mid 2006. The national report was one of the documents presented to and considered by the committee. Involvement in the Convention has provided us with some confidence that this approach to stakeholder engagement is consistent with international best practice.

THE REVIEW PROCESS

The UK found the review process to be useful and in particular we were pleased with the constructive nature of the questioning and the way that the review meeting made a positive decision not to go down the path of “passing or failing” national contributions, but maintained an incentive based process of constructive criticism.

As in any such gathering the opportunity for interaction with key players from a wide range of countries was also of benefit, particularly when all present were there with the common aim of improving safety standards in spent fuel and radioactive waste management.

THE WAY FORWARD

Lessons Learned from the 1st Review Process

The UK learned much from the process, and indications of how we have applied this have been given above. We hope that others found the UK's contribution to be useful.

In terms of our future contribution to the process we have learned how to be better organised and, hopefully, to make a better contribution with less effort. The process of producing our first report and participating in the first review meeting was undoubtedly time consuming. Questions and comments on our report did highlight areas that we had either missed or not covered adequately and we will be endeavouring to rectify this in future reports. Having gone through the process once, we can now better organise our efforts and while we would still not claim our second report to be perfect, we believe we have improved.

Links with IAEA Fundamentals and Requirements

An area that was discussed at the first review meeting, with the full support of the UK delegation, was the linkage between the Convention Articles and IAEA Fundamentals and Requirements. The UK firmly believes that the IAEA safety standards documents do have a place in the international effort to raise standards in this area. By linking national reports on Articles of the Convention to IAEA Fundamentals or Requirements documents provides a focus for more detailed consideration than the general requirements of the Convention. Importantly it also provides a means by which the IAEA documents can be tested against actual international practice - giving the invaluable opportunity to feed back into the process of revising the IAEA documents to make them even more useful, and importantly, relevant to spent fuel and radioactive waste management as it is practiced.

To this end the second UK report makes a link with relevant IAEA Fundamentals and Requirements documents in all sections where they are applicable. We will also use our experience of doing this in any future participation by the UK in developing the IAEA documents.

Furthermore, HSE's Nuclear Safety Directorate is currently revising its Safety Assessment Principles for Nuclear Plant and has used the IAEA requirements as a basis for the structure of the principles and as a check for their completeness and relevance.

SUMMARY

In summary, the UK finds the Joint Convention process to be a very positive one that can only improve the worldwide standards of safety in spent fuel and radioactive waste management. We have found the process to be useful and we hope that others gained some benefit from the UK's participation.

REFERENCES

1. Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management - Guidelines regarding the Review Process: INFCIRC/603/Rev.1: IAEA; Vienna 23 July 2004