

IAEA International Workshop on
“Sustainable Management of Disused Sealed Radioactive Sources”
ITN, Lisbon, Portugal, 11-15 October 2010

Report of the Chairman

Terms of Reference

The *Code of Conduct on the Safety and Security of Radioactive Sources* (the Code of Conduct), together with the *Guidance on the Import and Export of Radioactive Sources* (the Guidance), and the *Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management* (the Joint Convention), are important elements of the global nuclear safety and security framework. Many States are in the process of transitioning from political commitments to the actual implementation of the principles contained in the Code of Conduct and the Guidance, and the Secretariat has been tasked by Member States to organize international meetings to exchange information on national experiences in this area.

The purpose of the International Workshop was to promote the safe and secure management of disused sealed radioactive sources (DSRS), with emphasis on sustainable long term management, in particular the development of strategies that integrate safety and security, and the role of legal instruments such as the Code of Conduct and the Joint Convention. The workshop was designed to provide a forum for exchanging information and sharing experiences and lessons learned in the following thematic areas:

- Institutional Framework and International Cooperation;
- Sustainable Lifecycle (“cradle to grave”) management of DSRS;
- Synergies between the Code of Conduct and the Joint Convention.

Workshop Programme

The Programme was organized into topical Sessions which included oral presentations and lectures provided by the IAEA and experts, panel discussions, and working group sessions dedicated to the following topics:

- Role of International Instruments (Code of Conduct, Joint Convention);
- National experience with International Instruments;
- International Initiatives and multinational cooperation in managing DSRS;
- National strategies to manage DSRS;
- IAEA recommendations to manage DSRS safely and securely;
- Disposal of DSRS: the ultimate goal

The Programme also included a roundtable discussion on:

- Benefits from Code of Conduct, Joint Convention mechanisms

and two Working Group Sessions on:

- “Policy & Strategy Issues and Challenges faced by countries managing small quantities of RW (including DSRS)” (3 working groups on Policies, Strategies and International Cooperation)
- “Working towards improved & sustainable management of DSRS (4 working groups on Orphan sources, Storage, National Plan for Radioactive Waste Management [RWM] and Disposal)

The Workshop was organized by the International Atomic Energy Agency (IAEA) in cooperation with the Government of Portugal through the Nuclear and Technological Institute (ITN). The Workshop was held in Sacavém, Portugal from 11 to 15 October 2010, and was attended by approximately 70 participants from over 40 different countries representing national programmes, regulatory bodies, international projects and implementing and source management organizations.

Findings & Recommendations

Integration of safety, security and technology

The Workshop acknowledged the interdependency of safety, security and technology in the lifecycle (“cradle to grave”) management of Sealed Radioactive Sources. The safe and secure management of sources can only be guaranteed by commitment to continuous monitoring on the part of the operator and regulator (government). The establishment and maintenance of effective regulatory control of radioactive sources at each stage of their life cycle is required in every country. However, workshop participants agreed that an effective and comprehensive “cradle to grave” framework has to extend beyond national borders and that it requires the participation of the international community in ensuring safety and security of radioactive sources. This highlights the importance of international instruments, legally binding or not, such as the Code of Conduct and the Guidance, and the Joint Convention. The Workshop also recognized the key responsibility placed on regulators and licensing bodies to ensure that effective, comprehensive and coherent safety and security measures are in place at all stages in the lifecycle of a sealed radioactive source.

- *As a general conclusion from the topical session, the Workshop recognizes the need to closely integrate three aspects of radioactive source management: safety, security and technology. In terms of national regulation, good integration may be interpreted as the need for a strong regulatory body covering safety aspects as well as security;*
- *The Workshop also recognizes that, within each country, good coordination needs be established between safety and security services and other governmental bodies or stakeholders, such as customs, police, transport, etc., to achieve the final goal of safe and secure management of DSRS and radioactive waste.*
- *The Workshop encourages the IAEA to develop comprehensive guidance on the integrated “cradle to grave” management of sources that addresses the close interdependency of the*

three components of source management throughout the source lifecycle: safety, security and operations.

Role of International Instruments

Synergies between the Joint Convention and the Code of Conduct

The Workshop participants from Member States who are Contracting Parties to the Joint Convention acknowledged the many benefits drawn from the preparation of National Reports as well as from their participation in Joint Convention review meetings. The Workshop underscored that these meetings offer a fruitful forum to share experience and lessons learned in the field of RWM. Every three years, the preparation of the National Reports provides a valuable opportunity to bring together and facilitate communication among all the actors involved in RWM activities in a country, to assess progress made and to agree on priorities and strategic orientations for future efforts. The drafting of a National Report can also present a useful opportunity to involve and train younger staff of the RWM organizations. The Workshop recognized that the peer review mechanism of National Reports is a very challenging exercise which stimulates improvements in RWM in each country. Furthermore, MS's adherence to the Joint Convention contributes to strengthening the safety culture of all those involved in RWM activities in the country.

While the Joint Convention focuses on various aspects of radioactive waste management, including radioactive sources once they become disused, the Code of Conduct addresses the full spectrum of management activities throughout the lifecycle ("cradle to grave") of radioactive sources. In this respect, the articles contained in the Joint Convention and the principles contained in the Code of Conduct are complementary, if not interdependent. For example, rigorous regulatory control and tracking of new sources early in their lifecycle (upstream), including the authorization of their import into the country, may contribute to reductions in the number of sources becoming orphan later in their lifecycle (downstream), particularly as they approach the end of their useful lifetime.

On one hand, the Workshop acknowledges that Code of Conduct meetings are well suited to address all the safety and security issues related to source management. On the other hand, participants from Member States who are Contracting Parties to the Joint Convention identified that the management of DSRS is only briefly mentioned at Joint Convention review meetings. Further complicating this is the fact that, in nuclear power countries, the management of DSRS which represents only a small fraction of the overall waste inventories are not a top priority, whereas in non-nuclear power countries, the management of DSRS often receives significant attention as this may be the only major source of radioactive material or waste in the country. In order for non-nuclear MS's to maximize the benefits of ratifying the Joint Convention, the Workshop suggests that the IAEA consider DSRS-specific focused working groups or topical sessions at future Joint Convention review meetings. A similar suggestion applies to the management of institutional waste from nuclear applications (medicine, research, industry).

The Workshop unanimously acknowledged that the formal commitment by state authorities to comply with internationally-accepted safety/security principles and best practices, such as the provisions of the Joint Convention and Code of Conduct, contributes to raising public awareness and building public confidence in the safe and secure management of radioactive waste, including radioactive sources. To this end, the promotion of international instruments and greater adherence to the principles they espouse should be encouraged.

- *The Workshop acknowledges that the Code of Conduct and the Joint Convention are beneficial mechanisms which do complement each other and which can contribute to MSs making progress towards safer and more secure source management;*
- *The Workshop strongly encourages MS's that have not yet made political commitment to the Code of Conduct and/or Joint Convention to consider doing so;*
- *The Workshop encourages the IAEA to continue its promotion of the Code of Conduct and the Joint Convention through regional workshops and to advise and support new MS's Contracting Parties to the Joint Convention with the preparation of their first National Report;*
- *The IAEA should consider establishing focused working groups or holding topical sessions at Joint Convention review meetings to debate specific issues, especially those of high interest to non-nuclear power countries such as management of DSRS or management of institutional waste;*
- *The Workshop encourages the IAEA to continue facilitating the interaction between the Contracting Parties to the Joint Convention and the States that have made a political commitment to the Code of Conduct through the organization of joint meetings such as this Lisbon Workshop to discuss topics of interest common to both groups.*

Policies & Strategies for Lifetime Management of Radioactive Sources

At the end of their useful lifetime and if they cannot be cleared, recycled, repatriated, or disposed of, disused sources are considered to be, and managed as, radioactive waste. Therefore, the National Policy and Strategy for end-of-life management of radioactive sources does not differ much from the Policy and Strategy for RWM. However, unlike RWM the management of disused sources possesses international dimensions which could influence the end-of-life management strategy. First of all, the possibility of returning some disused sources to the suppliers or manufacturers should be carefully examined. In many countries, repatriation of DSRS to their country of origin is the preferred management option. The Workshop extensively discussed the contribution of international instruments such as the Code of Conduct and the role of specific mechanisms (e.g. financial guarantees) in facilitating the repatriation of DSRS to the countries of origin. The Workshop was informed of a French regulation which provides a right of return (to the previous owner in the supply chain), with the provision that the license to utilize the source is granted for only for a limited time, 10 years initially. Further potential obstacles impeding the return of sources to suppliers, either inside or outside of a country, were discussed. Participants noted that, for a number of reasons, many sources cannot be returned to the manufacturers'/suppliers' countries. Therefore, each country must develop and implement a comprehensive domestic solution for the end-of-life management of radioactive sources with the expectation that they may remain in the country indefinitely.

The Workshop noted that, in the absence of repatriation, recycling, or disposal, final disposal in a safe and secure facility is the most sustainable solution for the long-term management of RW, including DSRS which is considered waste. It was acknowledged that storage in safe and secure facilities is an effective interim management option for DSRS. However, for those DSRS with longer half-lives or that aren't otherwise suitable for clearance from regulatory control, the sustainability of long-term storage is questionable (See "*The long-term storage of radioactive paper: Safety and Sustainability*" a Position Paper of International Experts, IAEA publication, Vienna, 2003). Decay storage followed by release is considered as another management alternative suitable for very-short-lived radioactive sources. Storage and disposal of DSRS are discussed below under the Section on National Strategies.

The development and implementation of National Policies and Strategies were extensively discussed by the Workshop Participants during one of the working sessions. It was recognized that storage and/or disposal of radioactive waste are sensitive issues in most countries from a public perception point of view. Quite often, socio-political difficulties may impede the construction of new RWM facilities such as central stores or repositories. Thus, an approach used by several countries and which facilitates the development of new RW/DSRS management facilities consists of establishing, or in some cases codifying into a legislative framework, a National Policy which has been endorsed by governmental authorities and/or parliamentary bodies. To address stakeholder concerns regarding environmental protection, including the safety and security of RW, national laws and/or international obligations often make provision for public participation in decision-making (e.g. the Aarhus Convention in EU countries) (See “*Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters*”, UNECE, Geneva, 1998).

National Policies often include the obligation to minimize the generation of radioactive waste (See “*Policies and Strategies for Radioactive Waste Management*”, IAEA Nuclear Energy Series, No.NW-G-1.1). In this respect, the recycling and reuse of disused sources should be encouraged whenever possible as a means for achieving waste minimization. The Workshop was briefed by industry representatives on current opportunities to recycle disused sources. The topic generated considerable interest and questioning from among the Workshop Participants. In conclusion, the Workshop unanimously agreed that the recycling and/or reuse of DSRS should be further investigated and promoted. In this respect, the Workshop suggested that the IAEA collect and disseminate more information on available recycling services and technologies while also advising MS’s on the potential for DSRS to be recycled, taking into consideration legal, regulatory, technical and economic factors.

- *The Workshop recognizes the importance for each country to develop a National (domestic) Policy and Strategy which will provide a sound basis for the effective establishment of a comprehensive infrastructure for safe and secure management of DSRS (and radioactive waste);*
- *The Workshop unanimously agrees that the return of DSRS to the countries of origin in compliance with the provisions of the Code of Conduct and the Guidance should continue to be strongly encouraged and supported and recognizes the merits of international cooperation to facilitate the repatriation of DSRS;*
- *When elaborating their National Policy & Strategy, each country should make provisions for the development and implementation of a sustainable, safe and secure domestic solution for end-of-life management of radioactive sources that includes interim storage in safe and secure facilities and that also considers final disposal as the most sustainable solution for the long-term management of RW, including DSRS when considered as waste;*
- *The Workshop strongly supports the recycling of DSRS whenever technically and economically feasible; the Workshop encourages the IAEA to investigate available recycling services and technologies and to provide advice on the potential for DSRS to be recycled.*

National Strategies and Practices for Source Management

International and Regional Cooperation

Under national strategies and practices for source management, several topics were discussed at the Workshop. Some of these topics have a regional or international dimension which will be discussed below.

The Workshop agreed on the effectiveness of international instruments such as the Joint Convention and the Code of Conduct and on the usefulness of opportunities such as Joint Convention review meetings and Code of Conduct open-ended meetings for MS's to harmonize strategies and to adopt internationally agreed best practices for the management of sources. These international meetings are also useful to exchange information and share experience and lessons learned; and thus contribute to the overall improvement of the safe and secure management of sources in every participating country.

For a number of years, the main objective of international/regional cooperation has been to enhance safety and security of source management at large, emphasizing the need for safety and security culture, developing and implementing regulatory frameworks and putting in place appropriate safety and security measures. More recently, the scope of international/regional cooperation has shifted to include infrastructure, technologies and the development of processes for safer and more secure source management. The Workshop was briefed on several successful deployments of the mobile hot cell for high-activity sources and the availability of a long-term storage shield (developed by the IAEA in cooperation with the South African Nuclear Energy Corporation Ltd. (Necsa) in the framework of the TC AFRA Project and with the financial support of the US Global Threat Reduction Initiative (GTRI). Under IAEA leadership, some current international cooperative efforts focus on developing technology (ies) and process (es) dedicated to the safe and cost-effective disposal of DSRS suitable for countries with constrained resources (See below the Section on Disposal). The Workshop was also informed on the availability of standard engineering designs of modular processing/storage facilities for RW, including DSRS, developed by the IAEA Waste Technology Section and supported by specialized engineering firms.

The Workshop discussed the possibility of developing DSRS management infrastructure that could be shared by two or more countries, typically storage or disposal facilities. Socio-political and financial impediments were discussed and the Workshop acknowledged that a major inhibiting factor to the implementation of such joint facilities would be the disagreement about which country (or location) should house the facility to benefit all of the partners and who should bear the greatest financial burden. This problem exists at all levels (local, national and regional) but may become even more complicated when multiple countries become involved.

The IAEA offers a wide range of training courses at the regional or national level, most of them through the Agency's Technical Cooperation Programme or the Nuclear Security Fund. The Workshop was particularly supportive of hands-on training events which provide opportunities to develop practical skills. The contribution of train-the-trainers programmes to the sustainability of national capabilities development was also highlighted and supported.

- *The Workshop expresses its support for technology development carried out by the IAEA under international and/or regional cooperation projects to the benefit of all MS's and recognizes the contribution of several new tools to strengthening the safe and secure management of radioactive sources worldwide;*

- *The Workshop encourages the IAEA to pursue efforts in facilitating multilateral cooperation among MS's in the field of source management;*
- *The Workshop expresses its appreciation of the wide range of training courses provided by the IAEA and stresses the importance and usefulness of hands-on training and train-the-trainers programmes within the framework of a strong regulatory and operational infrastructure for safe and secure source management.*
- *The Workshop expresses some concern that the persons most in need of access to training are not always aware of opportunities for training and improvement.*

Maintaining and/or regaining control over sources:

One of the top priorities for national as well as international programmes is to keep sources under regulatory control and, if need be, to regain control over orphan sources. The Workshop recognized the key role assigned to the regulator in each country to undertake this objective. The merits of international instruments such as the Code of Conduct and the Guidance to maintain control over radioactive sources, both at the national and international levels, were also acknowledged. The important issue of orphan sources, including those inadvertently discovered within a country or at national borders, was extensively discussed. Workshop Participants reported that the application of the Guidance, its requirements for regular inventory by the licensees and regular inspections of relevant facilities have contributed to reducing the incidence of orphan sources in many of their countries.

From the discussions, it was clear that many Participants were not sufficiently informed of the around-the-clock assistance offered by IAEA's Incident and Emergency Centre (IEC) to respond to nuclear or radiological incidents and emergencies. The assistance includes the provision of services, guidance and, if need be, a coordinated international response to safety and/or security emergencies.

In order to help regulators keep track of radioactive sources, including records of licenses and registration as well as radiation doses received by individuals in occupational or medical settings, a ready-made web-based application, the Regulatory Authority Information System (RAIS) was developed by the IAEA and implemented by a number of developing countries. A few Participants reported on difficulties to access the newest, web-based version of RAIS due to software licensing difficulties or internet access limitations. Participants also acknowledged the benefits of RAIS and its ability to meet the needs of individual countries, regulatory bodies and operators.

- *The Workshop invites the IAEA to continue to further promote to MS's the assistance and services provided by the IAEA's Incident and Emergency Centre (IEC) in response to nuclear and radiological incidents and emergencies;*
- *The IAEA should continue to promote and support MS use of software applications/systems such as RAIS to assist in the regulatory control of radiation sources.*

International Catalogue of Sealed Radioactive Sources and Devices (ICSRS)

The purpose of the ICSRS database, as it was developed by the IAEA in the early 2000's, was firstly to provide wide information on industrially manufactured radioactive sources and devices, and secondly to facilitate the identification of radioactive sources based upon recognizable characteristics derived from limited information regarding orphan (or other unknown) sources and devices to allow for their safe handling. Furthermore, the IAEA's Waste Technology Section provides services to MS's to assist with the identification of sources and/or devices and manufacturers/suppliers. Currently, the Catalogue contains information on more than 8,000 sources, 9,500 devices and 1,300 manufacturers /

suppliers. Although the database does not contain any information on the location of radioactive sources, dissemination policy guidelines are driven partly by security considerations which restrict access to a small number of authorized national contact points, in general no more than one per country. This contradicts the initial purpose of the Catalogue which was to open the information to a broad audience, (e.g. regulators, customs officers, safety or security inspectors, etc). The Workshop heard of potential users who were not satisfied with being denied access to the Catalogue and others who did not even know of its existence, despite their stated need for just such a tool.

- *The IAEA should continue to promote the use of the Catalogue and services to MS's provided by the IAEA's Waste Technology Section to assist with the identification of sources and/or manufacturers/suppliers;*
- *The IAEA is invited to revisit the Catalogue dissemination policy in order to provide broader access to the database; to this end, the IAEA should reassess the actual sensitivity and confidentiality of the contents or examine ways to provide access to limited segments of data.*

Transport of radioactive sources:

IAEA Participants reported on the lack of available type B-transport containers which impede the repatriation of DSRS and may result in significant delays and costs. To address this issue, designs of new type B-transport containers are being developed by the US under the framework of the GTRI Programme. As a result of the Workshop discussions, participants invited the IAEA to develop and maintain a database of containers suitable for and available for the transportation of high-activity radioactive sources.

- *The Workshop encourages the IAEA to continue its cooperation with MS's towards the development and licensing of new type B-transport containers and to inquire on already licensed models of Transport Containers for DSRS;*
- *The IAEA is invited to establish a database of available type B-transport containers and make the information accessible to the appropriate organizations. It is acknowledged that security considerations for the current locations and routes of transport containers must be taken into account in such a database.*

Storage:

The Workshop reported that storage of DSRS is current practice in many countries, due in part to difficulties some countries are experiencing with repatriation, recycling, and disposal. Significant efforts have been undertaken to render existing storage facilities safer and more secure or to build new ones. Participants from several developing countries reported on recent safety/security upgrading at their stores implemented within the framework of bilateral or international cooperation programmes. From the discussions, it appeared that the general trend is to store DSRS in centralized storage facilities, in particular in countries where DSRS represent the major fraction of RW inventories. The Workshop was informed on the availability of standard engineering designs for modular processing/conditioning/storage facilities of RW and/or DSRS developed by IAEA's Waste Technology Section supported by specialized engineering firms. The Workshop noted that technical and financial support is offered by the IAEA through the TC Programme and by the Nuclear Security Fund to advise MS's on the adaptation of the standard design to local requirements and conditions (e.g. national RW/DSRS inventories).

The controversial issue of long-term storage versus disposal as the most suitable option for sustainable DSRS management was extensively debated by the Workshop. As mentioned above (See Section on

Policies & Strategies for Lifetime Management of Radioactive Sources), while centralized storage is seen as key to safe and secure interim management of DSRS, the sustainability of long-term storage is questionable (“*The long-term storage of radioactive paper: Safety and Sustainability*” a Position Paper of International Experts, IAEA publication, Vienna, 2003). From the discussions, it appeared that there is no alternative to disposal as the final end state for long-term management of DSRS when considered as waste and that storage constitutes only an intermediate solution until disposal route(s) become available. Thus, storage (even long-term storage) and disposal should be approached as complementary rather than competing management options.

Criteria for safe and secure storage of DSRS were presented and discussed at the Workshop. Participants were advised that requirements for safe, technically feasible and economically viable disposal drive all DSRS management processes upstream. They were also informed that the processing and/or conditioning of sources for storage should also comply with acceptance criteria for disposal and should not compromise the safety and feasibility nor the cost-effectiveness of disposal downstream. For example, encapsulation of DSRS into a metal (lead) matrix can preclude the possibility of using existing borehole disposal technology.

- *Although the safety and security of storage facilities can be maintained over long time periods, the Workshop recognizes storage only as an intermediate management solution for DSRS until disposal route(s) become available as a permanent and sustainable solution;*
- *The Workshop encourages the IAEA to continue its promotion of centralized storage facilities for safe and secure management of DSRS;*
- *Pre-disposal management of DSRS and other radioactive waste needs to take into account existing or potential future requirements for final disposal.*

Disposal:

The Workshop agreed that the disposal of any type of RW is one of most extensively debated topics at each Joint Convention review meeting. However, it was noted that disposal of DSRS may not have received the same attention as nuclear power plant operational waste (in particular in nuclear power countries with most advanced RWM programmes), possibly because DSRS represent only a small fraction of total waste inventories in these countries, and also because geological repositories should be able to accommodate any type of radioactive waste, including DSRS. Overall, the final disposal of DSRS remains an unresolved issue in most countries in spite of the fact that a few near-surface repositories licensed for LLW disposal also accept certain types of short-lived sources. The Workshop was informed that some MS do not allow DSRS to be disposed of near-surface repositories. Knowing that repositories are generally much more secure than any surface stores, the overall issue can be summarized as: how to balance safety and security? The Workshop considered that it would be useful to hold DSRS-specific focused working groups or topical sessions at future Joint Convention review meetings to debate on DSRS disposal.

Similarly, it seems that the disposal of DSRS has never been thoroughly discussed at Code of Conduct meetings. Since the IAEA is seeking support from the most advanced nuclear countries to assist with the design of technologies suitable for DSRS disposal in developing countries, e.g. borehole disposal, the Workshop advised that, in order to stimulate progress, it would be beneficial that the IAEA Secretariat consider holding a topical session dedicated to DSRS disposal at future Code of Conduct open-ended meetings.

The Workshop was briefed on the status of the borehole disposal project for DSRS, the so-called BOSS system, developed by the IAEA in cooperation with the Nuclear Energy Cooperation of South Africa (NECSA) in the framework of the IAEA AFRA Cooperation Programme. Firstly, the Participants were informed that the IAEA-ANSN Thailand Workshop held in January 2009 recommended the BOSS system as a sustainable, safe and secure solution suitable for disposal of DSRS and particularly attractive for developing countries where the total DSRS inventory is small. Although several developing countries expressed interest in the BOSS technology following information provided at the Thailand Workshop, the Participants noted that no significant progress towards the licensing and implementation of BOSS-type disposal facilities were made during the last two years. Ghana is one of the leading developing countries for BOSS implementation. The Participant from Ghana reported on the project status in his country.

The Workshop was briefed on the pre-requisites to be fulfilled by candidate MS's willing to become host for BOSS project and to receive assistance from the IAEA. Pre-requisites are as follows:

- 1) Expression of interest and commitment from Country's Governmental Authorities to host the BOSS Project as a Demonstration Project and to support and fund its implementation;
- 2) Adequate regulatory infrastructure to support the licensing of a BOSS-type disposal facility;
- 3) Adequate organizational scheme in place, including an independent regulatory/licensing authority and a responsible implementing organization;
- 4) Inventory and characterization of DSRS completed and sources collected and stored in a centralized facility.

The Workshop supported the IAEA's suggestion to identify one or two potential host country (ies) for implementation of the BOSS technology in each region. It was suggested that BOSS projects also be used as demonstration platforms to train experts from interested countries from the region. These projects could be possibly implemented and supported under IAEA TC regional projects such as AFRA in Africa or other international cooperation programmes. The Workshop also suggested that most advanced MS's with developed skills and experience in RW disposal assist and possibly sponsor the implementation of BOSS disposal technology in candidate developing MS's.

- *There was widespread consensus at the Workshop to recognize that final disposal is the most sustainable, safe and secure solution for long-term management of DSRS;*
- *The Workshop suggests that DSRS disposal be thoroughly discussed at Code of Conduct open-ended meetings and invites the IAEA Secretariat to organize a working group or topical session dedicated to DSRS disposal at the next open-ended meeting in 2011;*
- *The Workshop invites the IAEA to provide guidance on the suitability of DSRS (including short-lived DSRS), for disposal in near-surface facilities that considers safety and security in an integrated manner;*
- *The Workshop invites the IAEA to consider holding DSRS-specific focused working groups or topical sessions at Joint Convention review meetings to debate on the critical issue of DSRS disposal;*
- *The Workshop encourages the IAEA to continue the promotion of BOSS disposal technology and to support the licensing and implementation of BOSS technology in candidate MS's;*
- *The Workshop supports the approach proposed by the IAEA of BOSS demonstration projects serving as regional platforms for on-the-field training in host countries and open to foreign*

experts from interested countries, possibly under IAEA TC regional projects or other international cooperation programmes;

- *The Workshop invites the IAEA to advise candidate MS's on project management and planning for BOSS implementation;*
- *The Workshop invites most advanced MS's with developed skills and experience in RW disposal to assist and sponsor the implementation of BOSS disposal technology in developing MS's.*

Jan-Marie Potier

Chairman

15 October 2010