

Open-ended Meeting of Technical and Legal Experts for Sharing of Information as to States' Implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary Guidance on the Import and Export of Radioactive Sources

Vienna, 25 to 29 June 2007

Report of the Chairman

1. An open-ended meeting of technical and legal experts for sharing of information as to States' implementation of the Code of Conduct on the Safety and Security of Radioactive Sources (the Code) and its supplementary Guidance on the Import and Export of Radioactive Sources (the Guidance), was held from 25 to 29 June 2007 at the IAEA Headquarters in Vienna under the chairmanship of Mr S. McIntosh (Australia).
2. The meeting was attended by 122 experts from 70 Member States of the IAEA (Albania, Algeria, Argentina, Armenia, Australia, Azerbaijan, Belgium, Benin, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, China, Costa Rica, Côte d'Ivoire, Croatia, Cuba, Czech Republic, Dominican Republic, Ethiopia, Finland, France, Germany, Ghana, Hungary, India, Indonesia, Iraq, Ireland, Italy, Japan, Jordan, Kazakhstan, Republic of Korea, Kyrgyzstan, Lebanon, Libyan Arab Jamahiriya, Lithuania, Malaysia, Mali, Mauritania, Mexico, Mongolia, Morocco, Myanmar, Nicaragua, Niger, Nigeria, Norway, Pakistan, Palau, Philippines, Romania, Russian Federation, Slovak Republic, South Africa, Spain, Sweden, Tajikistan, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay, Venezuela and Vietnam) and 2 non-Member States of the IAEA (Cambodia and Burundi). The meeting was also attended by observers from the European Commission, the Organization for Security and Co-operation in Europe (OSCE) and the Food and Agriculture Organization (FAO). The Scientific Secretaries for the meeting were Mr J. Wheatley (Division of Radiation Transport and Waste Safety) and Mr W. Tonhauser (Office of Legal Affairs).
3. The meeting was opened by Mr Taniguchi, Deputy Director General of the Department of Nuclear Safety and Security. In his opening remarks, Mr Taniguchi recalled the success of the informal exchange of information on national approaches to controlling radioactive sources that took place at the International Conference on the Safety and Security of Radioactive Sources held in Bordeaux, France, from 27 June to 1 July 2005. He noted that the value of those presentations was recognized by the IAEA General Conference, and that the Secretariat was requested to undertake consultations with Member States with a view to establishing a more formalized process for a periodic exchange of information and lessons learned and for the evaluation of progress made by States towards implementing the provisions of the Code. Further to that request, the Secretariat organized an open-ended meeting of technical and legal experts from 31 May to 2 June 2006 to undertake such consultations. The participants in that meeting reached consensus on a mechanism for a voluntary, periodic exchange of information among States on their implementation of the Code and Guidance. That mechanism was subsequently endorsed by the IAEA Board of Governors and it provided the framework for this meeting.

4. The objective of the meeting was to promote a wide exchange of information on national implementation of the Code and Guidance. In line with the non-legally binding nature of the Code and the Guidance, participation in the meeting and presentation of papers was on a voluntary basis and the meeting was open to all Member and non-Member States of the IAEA, whether or not they had made a political commitment to the Code and/or to the Guidance.

5. During the opening session, there were reports from regional meetings in Latin America and South East Asia. After the opening, the meeting divided into three country groups (assigned on an alphabetical basis) to facilitate the voluntary presentation of papers. The country groups were chaired by Mr R. Gutterres (Brazil), Mr R. Jammal (Canada) and Mr M. Markkanen (Finland), with the assistance of Mr S. Evans, Ms C. Heinberg and Mr A. Wetherall from the IAEA Secretariat. Experts from 53 States presented papers on implementation of the Code and the Guidance. At the end of the meeting, the three country groups met in plenary to discuss the overall findings of the meeting. The key issues are summarised below.

Infrastructure for regulatory control

6. It was recognised that the establishment and maintenance of a single regulatory body, effectively independent of other functions with respect to radioactive sources, is one of the most important steps to the effective implementation of the Code of Conduct and its associated guidance on the import and export of radioactive sources. At the same time, participants stressed the importance of close working relationships between regulatory bodies and other bodies with responsibilities related to radiation protection and/or the safety and security of radioactive sources, such as customs authorities and security agencies.

7. The papers provided to the meeting demonstrated clear and widespread progress in strengthening legislative and regulatory infrastructure in the area of safety of radioactive sources. At the same time, the availability of sufficient resources and expertise were an ongoing challenge for the implementation of that legislative and regulatory infrastructure in many States.

8. However, it was evident that progress in development of such infrastructure in the area of security of radioactive sources was not as even, with some Member States, from all regions, yet to fully reflect the provisions of the Code in this area in their legislation. Participants looked forward to the finalization and publication of the IAEA Security Guide on the Security of Radioactive Sources, whilst recognizing that there would be a need to tailor the application of the guidance to national circumstances and to integrate security measures with safety regulations. Participants recognized that the development and enhancement of security regulation and security culture and their integration into the existing safety regulatory structure need to be done in a balanced manner that does not unduly restrict the beneficial uses of radioactive sources. There may often be a need for regulatory bodies to seek the advice of specialized security experts.

9. Participants welcomed the availability of assistance from the Agency and from other international and regional programs in developing a legislative and regulatory infrastructure. Such assistance has proven to be very valuable to many States. In particular, the Agency's RaSSIA missions and Model Projects had assisted States to improve their legislative and regulatory infrastructure. At the same time, it was noted that in such cases, it was important for the States benefiting from such programs to also develop national capabilities in this area.

10. There was some discussion of the relationship between the Code of Conduct and the European Union (EU) legislation, such as the High Activity Sealed Source (HASS) Directive. Such legislation is binding on EU Member States, whereas the Code is not legally binding. At the same time, it was recognized that EU legislation (such as the HASS Directive) is not as detailed with respect to import/export outside the EU and security of radioactive sources as are the Code and the Guidance. It was noted that in order to fully implement the Code and Guidance, some EU Member States have already supplemented EU legislation with additional national legislation in the areas mentioned above.

11. Some participants suggested that in order to facilitate the implementation of the Code, the Secretariat should develop a document mapping the provisions of the Code against relevant IAEA standards.

Facilities and services available to the persons authorized to manage radioactive sources

12. Many participants advised that their States had established dosimetry services for determining workers' occupational dose, health surveillance and calibration facilities for equipment used for radiation protection, and had installed appropriate security devices in facilities housing high activity radioactive sources. Some other participants advised that their States do not have appropriate radiation protection equipment for the purpose of monitoring, detection, handling and measurement, or had not upgraded security at facilities where high activity radioactive sources may be used.

13. It was noted that multilateral and bilateral support may be available to States for the provision of such equipment, including the upgrading of security at high risk facilities. Such support needs to be delivered in a manner which is sustainable by the recipient state.

Training of staff in the regulatory body, law enforcement agencies and emergency service organizations

14. The importance of training programmes – covering both safety and security - for staff of the regulatory body and other relevant government agencies (such as customs officials, law enforcement officers and staff of emergency response agencies) was universally recognized. In practice, however, in some States relevant training had not yet been provided to the staff of those other relevant government agencies. It was noted that the Agency and regional or bilateral programmes have a major role in preparing and delivering training courses and making materials and expertise available. National training programmes conducted by national experts with full participation of representatives of all relevant institutions in a State was vital in the longer term in order to ensure sustainability of the expertise within the country. To that end, participants supported the use of a '*Train the trainer*' approach.

15. The importance of systematic and ongoing training programmes for regulatory body staff was emphasized. Such training might be undertaken in cooperation with local universities and other educational institutions. Retraining should be undertaken when regulations are revised and/or on the basis of training needs analysis.

Experience in establishing a national register of radioactive sources

16. Participants recognised the importance of establishing and maintaining a national register of Category 1 and 2 radioactive sources as recommended by the Code. Many States have established such a national register, but resource and other challenges have meant that some are only now starting to do so, and some have not yet started. Some participants noted that tracking systems formed an important component of their national registers. Participants

noted new solutions which are taking advantage of modern computer technology; e.g. user-accessible web-based systems, common systems with Customs and GPS-tracking. Participants also recognized the potential benefits of a national register as part of a comprehensive information system (e.g. the IAEA's Regulatory Authority Information System - RAIS, or other software systems) supporting a wide-range of regulatory functions.

17. It was considered important that individuals responsible for inputting information into the register receive adequate training and have sufficient experience and knowledge about radioactive sources. Participants recognized the potential benefits of methods for ensuring data accuracy, including cross-checks between notifications from users and suppliers, inspections, inventory campaigns.

National strategies for gaining or regaining control over orphan sources, including arrangements for reporting loss of control and to encourage awareness of, and monitoring to detect, orphan sources

18. Radioactive sources may have become orphaned for many reasons. When such sources are found, the responsibility for managing such sources within a country is sometimes unclear, and national policies need to be established.

19. Many participants reported that their States have established services for searching for and regaining control over orphan and found sources, although in many cases this searching would be more effective if additional resources were available, especially in terms of trained staff and monitoring equipment. It was noted that multilateral and bilateral advice and support is available for source recovery activities. Technical information about types of radioactive sources and associated devices can be of benefit to a range of organizations and bodies that may encounter orphan sources. It was recognized that sometimes it is difficult to balance the need to share such information with the need to protect sensitive information about the source.

20. Several participants reported that their States had detected sources at national borders, particularly orphan sources in shipments of scrap metal. Dealing with such situations however was done very much on a case by case basis. Participants noted that the management of orphan sources found at borders should be consistent with overall safety and security objectives, particularly the need to ensure that sources were not re-orphaned.

21. Several participants observed that since the monitoring of scrap metal is an important means of detecting orphan sources, it was important that it be carried out in accordance with the national legislative and regulatory framework. However, in most cases scrap metal dealers are not regulated by the same national body that regulates radioactive sources. Nevertheless, it was considered to be clearly in such dealers' commercial interest to install radiation monitoring equipment at the entrances to their facilities, and many had done so.

22. Some participants recognized the usefulness of the IAEA's illicit trafficking database (ITDB), and called upon all States to report relevant incidents through this reporting system.

Approaches to managing sources at the end of their life cycles

23. Many participants indicated that the return of sources to the supplier at the end of their useful life was a condition of authorization to hold such sources in their States. It was noted that in some cases, national legislation of some other States may hamper or prevent the return of these sources to their country of origin. Such States could consider changing their legislation to facilitate the return of sources. There may also be problems where a supplier

has gone out of business, and sources which were imported prior to the coming into force of such requirements also posed a challenge.

24. Alternative approaches to managing sources at the end of their life cycles include recycling, re-selling, storing or disposing of sources. In the latter cases, many States do not have long-term storage or disposal facilities available. Such States often require the authorized user to store the source indefinitely on their own premises; however, this poses obvious ongoing safety and security risks. The development of central storage facilities capable of dealing with high activity sources was recognized as being desirable.

25. Participants observed that, consistent with paragraph 22(b) of the Code, some States have introduced a requirement for financial provision for final disposal as a condition of authorization. However, it has proved difficult to determine what the amount of such financial provision should be, and such schemes are therefore not currently widespread.

Experience with implementation of the import and export provisions of the Code and the Guidance on the Import and Export of Radioactive Sources

26. The import/export provisions of the Code and the Guidance form an important part of the global regulatory infrastructure for radioactive sources. All States are potentially exporters of radioactive sources, even if only to return a disused source to its manufacturer. It is therefore important that States establish systems within their legislative and regulatory framework to control exports as well as imports. It was recognized that the cooperation and coordination of relevant national agencies, such as customs, immigration, intelligence and other security agencies is necessary.

27. The discussion highlighted the importance of States' nominating and notifying to the Agency national points of contact as a central part of those systems to facilitate the export and/or import of radioactive sources, further to paragraph 4 of the supplementary Guidance. Where such contact points have been nominated and actively responded to communications from exporting States, this has facilitated implementation of the Guidance. On the other hand, delays and difficulties may occur with respect to export and/or import of sources, either if the point of contact has not been nominated, if the details of the point of contact are incomplete or inaccurate or if the point of contact is not fully aware of his or her role and responsibilities. If States have differing regulatory bodies and points of contact for parts of their territory or autonomous regions, such information should be provided to the Agency. Some States have up to four points of contact, and sometimes it is not clear what the division of work is. It was highlighted that there is no requirement for States to make a commitment to the Code and/or the Guidance prior to the nomination of a point of contact. It was recommended that nominations of national point of contact (preferably by position rather than name), their responsibilities if there is more than one within a State, and any changes to this information should therefore be notified promptly to the Agency, so that it may continue to maintain a list of State points of contact further to paragraph 19 of the supplementary Guidance¹. Some participants suggested that the Secretariat could verify the details of the points of contact on a periodic basis.

28. Participants noted that the practical implementation of the Guidance may be facilitated by widespread use of the notification and consent forms available to points of contact on the Agency's secure web page.

¹ <http://www-ns.iaea.org/tech-areas/radiation-safety/code-of-conduct.htm>

29. It was noted there was some uncertainty regarding the meaning of “consent” versus the meaning of “authorization” in relation to the export of Category 1 sources. Participants noted that these are two separate requirements: not only does the importing State need to consent to the import of the source, it also has to provide evidence that the intended recipient has the requisite authorization to hold the source.

30. Some participants suggested that it would be useful to hold an international meeting to harmonize the implementation of the Guidance. Some participants suggested that it could be useful to share information on the reasons why import or exports were not authorized in particular cases, and the cases when they were authorized under ‘exceptional circumstances’. Participants noted that there is currently no common approach by which an exporting State assures itself that the importing State is technically and structurally competent to receive Category 1 or 2 sources.

Conclusions

31. A number of conclusions were reached:

31.1. There is widespread international support for the Code and the import/export Guidance. States that have not yet made a political commitment to the Code or the Guidance were encouraged to consider doing so. It was noted that a political commitment to the former did not automatically equate to a political commitment to the latter – although it was possible to make a commitment to both documents in a single communication to the Director-General.

31.2. The adoption and implementation of the Code by States, and the Agency’s technical cooperation program have produced significant improvements in regulatory infrastructure and capability in relation to radioactive sources in many States.

31.3. In relation to the import and export of Category 1 and 2 sources, many States have already provided national points of contact (POC) to the Secretariat, and this information is available on the IAEA webpage dedicated to the Code. It was recognized that this information is of mutual benefit to both importing States and exporting States, and all States are encouraged to provide their POC’s to the Secretariat and to inform it of any future updates or changes to that information.

31.4. The establishment of a national registry of sources is an essential element of the regulatory control process and it should be given high priority.

31.5. Orphan sources detected at national borders need to be managed in a safe and secure manner. This area of concern would benefit from further multilateral discussions.

31.6. The importance of sustainability of implementation of all areas of the Code was emphasised. Such sustainability required the development of national expertise within all States, and ongoing international, multilateral and bilateral support. Some participants encouraged the Agency to monitor ongoing progress in this respect.

31.7. Participants agreed that the meeting achieved the objective of facilitating the exchange of information between States. The self-assessment process involved in

the preparation of papers had also been of benefit. Participants appreciated the open nature of the discussions, and encouraged the Secretariat to hold similar meetings in the future perhaps on a triennial basis, subject to availability of funds.

32. In relation to funding the meeting, the Chairman's report of the 2006 meeting of technical and legal experts noted that the Regular Budget of the Agency did not contain the funds necessary to support the proposed information exchange mechanism, and that it would need to be largely supported by extra-budgetary funding. Member States were encouraged to positively consider providing such funding on a voluntary basis, and as noted in Mr Taniguchi's opening remarks, Canada and the USA had provided the extra-budgetary funding to the IAEA to specifically support the participation of experts from States that otherwise could not have attended the meeting. If the meeting is to be repeated in the future, then Member States need to consider how best to fund the participation by experts.

33. As foreshadowed in the mechanism approved by the Board, experts suggested that the Director-General submit this report to the Agency's policy-making organs for their information.



Steven McIntosh
Chairman
29 June 2007