

**Third Open-ended Meeting of Technical and Legal Experts to Develop a Non-binding Instrument on the Transboundary Movement of Scrap Metal that may Inadvertently Contain Radioactive Material**

**Vienna, 25 February to 1 March 2013**

**Report of the Chairman**

1. The third open-ended meeting of technical and legal experts to develop a non-binding instrument on the transboundary movement of scrap metal that may inadvertently contain radioactive material was held from 25 February to 1 March 2013 at the IAEA Headquarters in Vienna under the chairmanship of Mr R. Irwin (Canada).
2. The meeting was attended by 67 experts from 55 Member States of the IAEA (Albania, Argentina, Belarus, Belgium, Benin, Bosnia and Herzegovina, Bulgaria, Canada, Chile, China, Cuba, Czech Republic, Egypt, Finland, France, Gambia, Germany, Ghana, Greece, Honduras, India, Indonesia, Islamic Republic of Iran, Iraq, Republic of Korea, Lebanon, Lithuania, Malaysia, Mali, Malta, Mexico, Montenegro, Morocco, Pakistan, Philippines, Romania, Russian Federation, Slovenia, South Africa, Spain, Sudan, Sweden, Syrian Arab Republic, Tajikistan, Thailand, the former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay, Vietnam, Yemen, and Zambia) and one non-Member State (Saint Kitts and Nevis). The meeting was also attended by eight observers from: the European Commission, and several industry associations—the Bureau of International Recycling, the Spanish Recovery Federation, the World Steel Association, Marienhütte Stahl und Walzwerk, Stahlinstitut Vdeh and EUROFER. The Scientific Secretaries for the meeting were Mr E. Reber (Division of Radiation, Transport and Waste Safety) and Mr W. Tonhauser (Office of Legal Affairs). The rapporteur for the meeting was Mr A. Wrixon (consultant).
3. Pursuant to IAEA General Conference Safety Resolution (GC(54)/RES/7), the first open-ended meeting of technical and legal experts was held in July 2011 to undertake exploratory discussions concerning the development of a non-binding international instrument that will establish and harmonize an appropriately graded approach by States to the protection of people, property and the environment from the inadvertent presence of radioactive material in scrap metal that is transported across State boundaries. The Chairman's report of that meeting indicated that, after some discussion, it has been decided that the instrument should be a Code of Conduct, an instrument familiar to and understood by Member States as legally non-binding. It would follow a development process at the IAEA similar to the two other Codes of Conduct, namely the Code of Conduct on the Safety and Security Radioactive Sources and the Code of Conduct on the

Safety of Research Reactors. Further to the Chairman's report, GC(55)/RES/9 called upon the Secretariat to proceed with the development of a Code of Conduct.

4. A second open-ended meeting of technical and legal experts was held from 30 January to 3 February 2012 to finalize the text of the draft Code of Conduct on the basis of the text developed at the first open-ended meeting. A number of amendments were incorporated into the draft Code and the meeting agreed that the Secretariat should circulate the revised draft and necessary background information to all Member States for comment, which was done on 26 April 2012, and, unless fundamental objections were raised, that the Secretariat submit the draft to the Agency's policy-making organs for their approval. The IAEA General Conference, in resolution GC(56)/RES/9, called upon the Secretariat to continue with the development of a Code of Conduct on the transboundary movement of scrap metal that may inadvertently contain radioactive material, and requested the Secretariat to continue to involve Member States in its further development.
5. The objective of this meeting was to resolve the comments received from Member States and to finalize the text of the draft Code of Conduct on the Transboundary Movement of Radioactive Material Inadvertently Incorporated into Scrap Metal and Semi-finished Products of the Metal Recycling Industries.
6. This third meeting was opened by Mr Denis Flory, Deputy Director General of the Department of Nuclear Safety and Security. Mr Flory reminded participants of the importance of metal recycling and the serious consequences with regard to the protection of people and the environment from the harmful effects of radiation and serious economic consequences of radioactive material that may be inadvertently present in scrap metal. He noted the seminal role played by the International Conference on Control and Management of Radioactive Material Inadvertently Incorporated into Scrap Metal, in Tarragona, Spain, in 2009. He provided an overview of the process of development of the draft Code of Conduct. He indicated that the current meeting will take appropriate action in response to the comments received, which may require changes to the text and possibly to the scope of the draft Code and that the outcome will be based on a consensus of the participants. He went on to indicate that the draft Code will next be considered by the Agency's policy-making organs and therefore that participants should strategically consider the finalization of the text in a manner that will be supported by their States. He expressed his hope that the required consensus would be achieved during the meeting and stated that this would be a significant step toward a solution of the problem of radioactive material being inadvertently present in scrap metal.
7. The Chairman also reviewed the progress in the development of the draft Code. He noted that the scope of the meeting is to resolve and take action on the comments received. He

indicated that at the first open-ended meeting, it had been agreed that the Code should be discussed in the context of radiation safety, that it relied on the industry to undertake the necessary monitoring, that the focus was on dealing with the problem, not on penalizing those involved, and that the emphasis was on resolving the matter of radioactive material being found in scrap metal or the products of metal recycling locally, if possible.

8. The Chairman described the working materials that were distributed to meeting participants via e-mail on 15 January 2013:
  - 1.) The draft Code of Conduct that was circulated to Member States for comment on 26 April 2012;
  - 2.) A table with all comments received from Member States and proposed resolutions that were developed by the Secretariat;
  - 3.) A Discussion Note, by the Secretariat, which lays out a framework for discussions on the major topics raised by States; and,
  - 4.) A proposal from the Secretariat on comments from the USA relating to the removal from the draft Code of provisions related to the metal recycling industry.
  
9. Mr E. Reber gave an overview of the work by the IAEA concerning radioactive material that has been inadvertently incorporated into scrap metal and indicated that the intention was for the Code to fill a gap that exists in the “Global Radiation Safety Framework”. He indicated that the Tarragona Conference had emphasized the problems that had arisen with imported scrap metal and that there were no international legal instruments covering the matter. The Conference participants had stressed the importance of obtaining an international agreement for the purpose of harmonizing national approaches. He mentioned the structure of the IAEA Safety Standards, in particular, the Safety Guide (SSG 17) dealing with scrap metal, which was published in 2012. He noted that the two Codes of Conduct — one dealing with the Safety and Security of Radioactive Sources and the other dealing with Research Reactors — reflected principles and concepts that countries would wish to aspire to.
  
10. Mr W. Tonhauser gave an overview of the various international instruments covering those that are legally binding and those, such as Codes of Conduct, that are not. He noted that each Member State can determine the extent to which it wishes to implement a Code of Conduct. Agency practice was that Codes of Conduct have to date been developed at the request of the policy-making organs through open-ended meetings of technical and legal experts, i.e., meetings open to all Member States and draft Codes are subsequently presented to the IAEA Board of Governors and the General Conference for their approval. In the case of the Code of Conduct on the Safety and Security of Radioactive Sources, resolutions of the General Conference were used to invite political declarations

for implementing the Code as well as its supplementary guidance on the import and export of radioactive sources.

11. The meeting then addressed the comments summarized in the Discussion Note:
  - a. The degree to which nuclear security should be mentioned in the Code;
  - b. Whether there is a need to include finished products;
  - c. Whether there is a need to cover border controls in more detail;
  - d. The definitions of:
    - i. Semi-finished products; and
    - ii. Radioactive material;
  - e. Points of contact; and
  - f. Limitations of monitoring
  
12. Ms R. Evans (IAEA, Office of Nuclear Security) gave an overview of the work of the Office of Nuclear Security concerning radioactive material that is out of control, lost, stolen, etc. and indicated that the Office is focused on prevention, detection and response measures. She noted that the objectives of nuclear security are similar to those of radiation safety — the protection of people and the environment — and made two proposals regarding how the text of the draft Code might be amended to reflect the nuclear security documents. In subsequent discussion, the meeting confirmed the earlier decision that the Code should be developed in the context of safety but agreed that a short reference to security documents should be included in the preambular statements.
  
13. Discussions revealed that there was limited support for finished products to be included throughout the Code — this would necessitate substantial changes to scope and other provisions and would require a definition of ‘finished products’ to be developed. Nevertheless, it was agreed that mention should be made in a preambular statement that radioactive material that has been discovered in finished products could be managed in accordance with the objectives of the Code.
  
14. The consensus regarding the inclusion of additional provisions concerning border monitoring was that the current text is adequate.
  
15. The definition of semi-finished products was discussed at length, but was not changed substantially from its definition in the draft Code.
  
16. Mr E. Reber described the development of the values given in Annexes I and II which form the basis of the definition of radioactive material in the draft Code. He referred to a General Conference resolution, GC(44)/RES/15, which requested the Secretariat to develop activity concentrations that are safe for international trade in bulk quantities of

material. The outcome of this work was published in the form of a Safety Guide, RS-G-1.7. In resolution, GC(48)/RES/10, the General Conference welcomed the approval by the Board of Governors of the criteria that had been developed and encouraged Member States to make use of them, for example, to facilitate trade. It further encouraged the Secretariat to take account of the criteria in the revision of the BSS. The values are now incorporated into the new International Basic Safety Standards, GSR Part 3 (Interim).

17. Many experts recognized the pivotal nature of the values in the Code for the purpose of international harmonization. They also recognized that they were without prejudice to any values that might be adopted nationally by a regulatory body within its territory. One Member State insisted on the elaboration of an additional technical document as a necessary part of the Code to address surface contamination.
18. Most of the experts recognized the importance of establishing a point of contact for the purpose of facilitating communication among States upon the discovery of radioactive material in consignments. Contact points had worked well with regard to the Code of Conduct on the Safety and Security of Radioactive Sources and the associated guidance on import/export control. However, one Member State expressed the opinion that it implied more bureaucracy to existing channels of communication and would necessitate the point of contact to keep track of all consignments. The Chairman felt that in view of the strong support to retain the provision in the Code, it should not be deleted. After further discussion, phrases were incorporated into the text to clarify that other channels of communication could be used for this purpose, so as not to increase the bureaucratic burden on a State. But this wording did not remove the aforementioned concerns.
19. While all agreed that there were limitations in the use of monitoring equipment to detect the presence of radioactive material, consensus on how this should be reflected in the Code was not obtained without extensive discussions. It was eventually agreed that:
  - a. A preambular statement would be included recognizing the difficulties involved in detecting radioactive material, particularly in scrap metal;
  - b. The statement in Annex III recognizing the limitations of radiation monitoring with regard to scrap metal should be removed;
20. A definition of radiation monitoring was developed for the purposes of clarifying the relevant tasks.
21. There was some discussion on the appropriate stages in the movement and processing of scrap metal and the manufacture of semi-finished products to perform radiation monitoring. As a result, a provision of the draft Code concerning the role of the industry

was revised to reference monitoring locations including entrances and exits of facilities up to and within the melting facility.

22. Potential changes to the text concerning the description of the results of radiation monitoring in Annex III was discussed at length before a consensus was achieved that the wording should not be changed from the previous draft version of the Code, i.e., that the text, 'radioactive material was not discovered,' should be retained.
23. The following additional topics were raised during the meeting:
  - a. The development of further technical guidance;
  - b. Financial responsibility for the return of consignments containing radioactive material; and
  - c. The inclusion of provisions concerning residues.
24. One Member State stated that detailed technical guidance concerning the application of the draft Code in the metal recycling industry should be developed concurrently with the draft Code. The Secretariat indicated that some relevant technical guidance has already been developed by the IAEA and published in RS-G-1.7, SSG-17 and in Safety Report No. 67, *Monitoring for Compliance with Exemption and Clearance Levels*. Furthermore, Section IX of the draft Code lists as a role of the IAEA 'to establish relevant technical standards and provide for the application of these standards'. Nevertheless, it was agreed that a preambular statement indicating that some States require additional technical guidance about the implementation of the Code within the metal recycling industry should be introduced into the document.
25. As far as the question of financial responsibility for the return of consignments containing radioactive material to the exporting facility, after extensive discussion, a consensus was reached not to include a clause addressing this matter.
26. One Member State suggested the need for additional sections addressing the responsibilities of exporting and importing actors.
27. Despite the usefulness of monitoring of residues for radioactivity, after some debate, it was decided that references to 'residues' should be removed from the text as this topic is outside the scope of the document. However, one Member State still questioned this deletion.
28. A question was raised concerning the official name of the meeting as recorded in the Chairman's report, which differs with the current long form name of the draft

Code. Mr Reber explained that the wording of the Note Verbale for the first Open-ended meeting was based on the language of General Conference Resolution GC(54)/RES/7, which referred to a “non-binding instrument”, i.e., not yet as a “Code of Conduct”. However, at the first Open-ended meeting, it was decided that the instrument should be developed in the form of a Code of Conduct; hence, these words were subsequently included in its title. Regardless, subsequent Notes Verbale and the Chairman’s reports have retained the original wording. Another difference in the wording of the titles is that the original Note Verbale referred to “scrap metal that may inadvertently contain radioactive material”. Later, the wording was changed to “Radioactive Material Inadvertently Incorporated into Scrap Metal and Semi-finished Products of the Metal Recycling Industries” to place emphasis on “radioactive material” and to reflect the scope of the draft Code as developed in the first and second Open-ended meetings. Furthermore, no comments were received during the comment period concerning the title of the draft Code.

29. The draft text of the Code of Conduct that was agreed tentatively by all but one of the Member States participating in the meeting is attached to this report. One Member State questioned the viability of the current draft text and expressed the view that it should not be recommended by the IAEA for implementation.
30. The participants indicated that, if the IAEA’s Policy Making Organs were to endorse the Code, regional workshops may be helpful in its implementation.
31. The meeting, having fulfilled its mandate, recommended that the Secretariat submit this report and the draft text of the Code to the Board of Governors for its information.
32. The Report of the Chairman was reviewed by meeting participants and their feedback was incorporated into the final version.



Robert Irwin

Chairman

1 March 2013