

Open-Ended Meeting of Technical and Legal Experts for Sharing Information on States' Implementation of the Code of Conduct on the Safety and Security of Radioactive Sources and its Supplementary Guidance

IAEA Headquarters, Vienna, Austria

27 – 31 May 2019

Report of the Chairman

1. An open-ended meeting of technical and legal experts for sharing of information on States' implementation of the Code of Conduct on the Safety and Security of Radioactive Sources (the Code) and its supplementary Guidance (Guidance on the Import and Export of Radioactive Sources, Guidance on the Management of Disused Radioactive Sources), was held from 27 to 31 May 2019 at the IAEA Headquarters in Vienna under the chairmanship of Mr F. Feron (France).

2. The meeting was attended by 191 experts from 103 Member States of the IAEA (Afghanistan, Albania, Algeria, Argentina, Armenia, Australia, Azerbaijan, Bahrain, Bangladesh, Benin, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, Chile, China, Comoros, Congo, Cuba, Cyprus, Côte d'Ivoire, D.R. Congo, Dominican Republic, Egypt, Estonia, Eswatini, Ethiopia, Finland, France, Gabon, Georgia, Germany, Ghana, Greece, Guatemala, Hungary, India, Indonesia, Iran, Iraq, Ireland, Jamaica, Jordan, Kenya, Lao P.D.R., Lebanon, Lesotho, Lithuania, Madagascar, Malawi, Malaysia, Mali, Mauritania, Mauritius, Mexico, Morocco, Mozambique, Nepal, Niger, Nigeria, Oman, Paraguay, Philippines, Poland, Portugal, Qatar, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Rwanda, Senegal, Serbia, Seychelles, Singapore, South Africa, Spain, Sri Lanka, Sudan, Switzerland, Syrian Arab Republic, Tajikistan, Thailand, Turkey, Uganda, Ukraine, United Kingdom, United Republic of Tanzania, USA, Uruguay, Uzbekistan, Viet Nam, Yemen, Zambia, Zimbabwe).

The meeting was also attended by observers from the International Source Suppliers and Producers Association (ISSPA), International Irradiation Association (IIA) and the Nuclear Threat Initiative (NTI).

The Scientific Secretaries for the meeting were Ms O. Makarovska (Division of Radiation, Transport and Waste Safety) and Ms A. Rodriguez y Baena (Division of Nuclear Security).

3. 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 submission of papers and presentations were on a voluntary basis, and the meeting was opened 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.

4. The meeting was opened by Mr Juan Carlos Lentijo, Deputy Director General of the Department of Nuclear Safety and Security (DDG-NS). In his opening remarks, DDG-NS noted that to date, 137 States have made political commitment to implement the Code. Of those, 118 have also notified the Agency of their intention to act in accordance with the Code's supplementary Guidance on the Import and Export of Radioactive Sources. 20 have done the same for the Guidance on the

Management of Disused Radioactive Sources, which was approved by the Board of Governors in September 2017. He emphasized how by implementing the Code and its supplementary Guidance, States have improved radiation safety and radioactive source security, nationally and globally and noted three areas where improvements are needed: strengthening and sustaining of the independence of regulatory bodies; safety and security for the radioactive sources out of the regulatory control; capacity building in storage and disposal of disused radioactive sources. Finally, he thanked Canada and the United States for their extra-budgetary financial contributions to support broader participation in the meeting.

5. A number of presentations on topics relevant to the safety and security of radioactive sources were made by representatives of the IAEA Secretariat and invited participants in plenary sessions during the meeting. All presentations were made available to participants on a secured shared webpage. Therefore, their detailed contents are not replicated in this report and only a short summary is provided below.

Overview of the IAEA activities to support the Code and supplementary Guidance implementation

6. The Secretariat (Ms. O. Makarovska, NSRW and Ms. A. Rodriguez y Baena, NSNS) provided participants with an overview of the IAEA activities related to safety and security. It included information on:
 - Safety Standards, Nuclear Security Series publications and other IAEA publications;
 - Assistance available to support States with the establishment of legislative and regulatory frameworks;
 - Human capacity building through various training activities, including e-learning modules;
 - The provision of peer review services (IRRS, IPPAS, etc.) or expert advice services; and
 - The provision of technical assistance aimed at ensuring the safety and security of radioactive sources, both in use and disused.
7. The Secretariat (Mr. R. Pacheco, NSRW), provided a summary of the four regional and two interregional meetings held since 2016, noting that the current formalized process provides the opportunity to organize regional meetings and to report on their outcomes. Mr Pacheco noted that regional meetings are greatly appreciated by participants, as they complement international meetings and allow a focus on regional challenges and concerns. He also noted that, although progress have occurred in many areas, improvements are still needed in several areas. These areas for improvements are broadly consistent with the ones identified in para 14 to 37.
8. The Secretariat (Ms. S. Geupel, NSRW) provided a presentation on synergies between the Code of Conduct and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention). She emphasised that:
 - the scope of this Joint Convention covers – inter alia – radioactive sources from the point at which they become disused to their final disposal;
 - this Joint Convention and The Code and its associated Guidance, whilst different in their nature, complement each other as regards the management of disused sealed sources but only insofar safety aspects are concerned.
9. The Secretariat (Mr. Thierry Pelletier and Ms A. Rodriguez Y Baena, NSNS) provided a summary on the results of the International Conference on the Security of Radioactive Material: The Way Forward for Prevention and Detection. Some key conclusions were that:

- enhancing the protection of radioactive material from malicious uses requires cooperation, coordination and communication among stakeholders, not only nationally but also across borders;
- a strong nuclear security culture is essential across all stakeholders;
- capacity building and sustainability are challenges currently faced in many States, even if legislation and regulations on the security of radioactive materials are established or being established in many States.

Summary on the Countries' National papers and overview of Implementation Practices papers

10. The Secretariat (Ms. O. Makarovska, NSRW) provided participants with a presentation summarizing the 47 Countries' National papers that have been provided in advance (as of 20 May 2019) and recalled the purpose and modalities of the Implementation Practices papers initiative, which resulted in 42 papers submitted by 28 countries. She noted that the relevant templates had generally be followed. She also highlighted the complementary nature of National papers and Implementation Practices papers.
11. Following the presentation on Implementation Practices papers, there was a discussion on whether this initiative should or not continue. *The conclusion was that this initiative was valuable and that States should be encouraged to submit Implementation Practices papers and that the IAEA should put in place an effective process to analyse and disseminate the corresponding information.*

ISSPA Experience with the Code of Conduct

12. Mr R. Wassenaar, representing the International Source Suppliers and Producers Association (ISSPA), that is an association of 17 companies that manufacture and supply sealed radioactive sources and/or equipment with such sources, provided participants with an overview of the composition, mission and objectives of ISSPA in promoting the safe and secure uses of radioactive sources as well as of ISSPA experience with the Code. In ISSPA presentation, it was stressed that, to facilitate safe and secure import-export of the radioactive sources, it is important to have clarity (i) in the contents of the licenses while avoiding over-prescriptive details and (ii) on exporter activities that are authorised when a positive answer to the request of consent has been received. The discussion allowed to hear actual examples of lack of clarity or potentially too detailed information required and of associated challenges for a supplier willing to contribute the safe and secure transport and use of radioactive sources. *The participants took note of the feedback from industry.*

Country group presentations and discussions

13. As agreed at the opening session, participants were divided into three Country Groups that worked in parallel from evening session at 27th of May till the morning session at the 30th of May. Country Groups were chaired by Mr Mohammad Kharita (Qatar), Mr Faradally A. Ollite (Mauritius) and Ms Cristina Dominguez (Argentina). Chairs were supported by rapporteurs form the Secretariat: Mr. J. Rodolfo Quevedo García (NSRW), Ms. V. Kamenopoulou (NSRW), Mr. D. Mroz (NSRW), Mr. S. Vleugels (NSNS), Ms. L. Aniuska Betancourt-Hernandez (NSNS) and Mr. M. Waseem (NSNS).

Overall, 87 oral presentations took place. Once the Country Group sessions had ended, each Country Group Chair presented in the plenary sessions a summary of the Country Groups' presentations and discussions. The corresponding presentations were made available to participants on a secured shared webpage. Considering these presentations and the discussions that followed, the main findings are provided in paragraphs 14 to 37.

Infrastructure for regulatory control of the safety and security of radioactive sources

14. Most of the States have enacted laws on the radiation safety. In many States the law covers both safety and security of the radioactive sources. More and more States have established a full set of regulations covering all activities related to the use of radioactive sources, others continue efforts to develop missing regulations.
15. Most of the States have stated that their domestic regulations are in compliance with IAEA Safety Standards and included requirement for physical protection for Cat 1 sources. Rest of the States have recognized the need to update their legislation and regulations and have more than often already initiated the process to bring the legal and regulatory framework in line with the provisions of the Code and its supplementary Guidance and, more generally with the IAEA Safety Standards and Nuclear Security Guidance.

Many States are in the process of establishing a regulatory framework for the security of radioactive sources, which bears the additional challenge of having to involve many organizations (regulatory body, intelligence services, law enforcements agencies, etc.) and is sometimes complicated by the fact that the concept of "nuclear security" is believed to not apply to radioactive sources. Until this framework is established, some basic measures are often implemented.
16. Nearly all States have established a Regulatory Body (which may be composed of several departments or agencies as defined in IAEA GSR Part I (Rev.1)) with core regulatory functions and activities (national inventory, review and assessment, authorization, inspection and enforcement, regulations promotion and roles in emergency preparedness and response). They are mostly in charge of both radioactive sources safety and security regulation. Several States also reported that systematic co-operation between the regulatory body and security responsible agencies promote implementation of an integrated approach to safety and security of radioactive sources.

Safety and security of radioactive sources are getting better integrated and many States consider them simultaneously during the authorization and inspection process.
17. However, effective independence of the regulatory body, as also required in IAEA GSR Part 1 (Rev.1) and further detailed in IAEA GSG-12 (Organization, Management and Staffing of the Regulatory Body for Safety), is not always achieved yet. In addition, having sufficient competent staff (see also para 21) and sufficient financial resources remain frequently a challenge.
18. At the national level, memoranda of understanding are being generally concluded between the regulatory body and other national organisations with competence for security or/and safety (such as police, customs, border control, health authorities, intelligence and environmental agencies, first responders, in some cases: airports, emigration service, etc). For effective control on the import or export of radioactive sources, many regulatory bodies have agreements or cooperation procedures with customs and border control. Overall, most States are now convinced of the strong need of the national, regional and international cooperation to ensure an effective control over radioactive sources for their safety and security.
19. At the international level, bilateral and multilateral agreements are more and more signed between neighbouring States and beyond, including to facilitate the decision-making process for import and export of radioactive sources and to control associated shipment. Several States have recognized the benefits of the cooperation established with the United States of America, (Office of Radiological Security of DoE or the NRC), Canada and of the assistance received through IAEA projects (for example through the Integrated Nuclear Security Support Plan) or European Union projects in establishing or reinforcing their framework for safety and security.

20. Many States recognise importance and benefit of self-assessment, IAEA advisory and peer review mission services in improving regulatory infrastructure for safety and security.

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

21. Some regulatory bodies have well established training programmes for their staff, but this is an area for improvement at many regulatory bodies as no systematic approach to training is implemented. Several States benefit from the support provided by the IAEA, by bilateral agreements (e.g. by Canada, USA, EU and other donors) or within regional cooperation frameworks. For some States, training opportunities provided by the IAEA is the only available option.
22. Many regulatory bodies make significant efforts to organise and provide training of the staff of law enforcement agencies, especially customs, and emergency service organizations. Joint drills or exercises are also opportunities used to enhance competency. Training activities are sometimes organised in the framework of national Emergency Preparedness and Response infrastructure.

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

23. Availability of services varies significantly among the States. For example, almost all States have external dosimetry services but environmental monitoring or calibration services are not always available. Availability of the appropriate facilities and services for searching for missing radioactive sources and securing found sources, services for the intervention in the event of malicious act remains a challenge for many States.

Establishment and maintenance of a national register of radioactive sources

24. With a few exceptions, national registers exist in all States for Category 1 to Category 3 sources and IAEA RAIS system if often use to maintain it. Some States have extended the inventory to all radiation sources. Regulatory inspections and customs' information about imported or exported sources are generally used as a means of updating and verification. However, in some States, there is no established effective mechanism in place for the regular updating of the national register of radioactive source.
25. Some States are implementing or plan to implement tracking of the Category 1 and 2 sources, including tracking by reporting any change of location or physical tracking of devices containing the source.

National strategies for gaining or regaining control over orphan sources

26. Many States have practices and general guiding principles for managing found orphan sources and, quite often, the regulatory body takes the control of the discovered orphan source. Some States request IAEA support to help in securing those sources. However, few States have formalised strategies for gaining or regaining control over orphan sources, having a reliable National Register and adequate import-export controls being among essential elements. Awareness of the source users, workers likely to encounter orphan sources and the general public about the risks and vulnerability of radioactive sources is often an area for improvement.
27. Some States reported on the national regulatory framework for the control of scrap metal and recycling products where radioactive material may be inadvertently incorporated, included on the

practice of shipment radiation monitoring at site entrance. Many States recognized the need for such system and the benefits of international cooperation in this area (see also para 41).

Approaches to managing radioactive sources when they become disused

28. Several States have removed disused radioactive sources from their territory with the support of Canada, USA, the IAEA and other partners.
29. With regard to disused sources, almost all States require from the licensees a back-end solution for the radioactive sources before import and/or use authorization is granted. Return to a supplier is almost always considered and allowed; many countries require guarantee of the source return to the supplier as part of the authorisation process. When return to a supplier was the option selected, maintenance of contractual agreement (especially financial aspects) and availability of transport package are areas not to overlook.
30. Even if return to a supplier is the current national practice, this option may not be applicable for radioactive sources acquired before such arrangements were in place and orphan sources.
31. Some States limit storage of disused sources at the users' sites and mandate transfer such sources to a centralised facility.
32. Despite these arrangements, many States do not have national policy and strategy for the management of the disused radioactive sources, including re-use and recycling, long term storage and disposal. Several States are still lacking facilities for the interim management of disused radioactive sources. Many States have only provisional options for interim storage, either in a centralized facility (such as at the regulatory body's premises) or *in situ* at the licensee's premises. A majority of States have no disposal option(s); borehole disposal concept is being considered by a few States.

Experience with arrangements for implementing the import and export provisions of the Code and of the Guidance on the Import and Export of Radioactive Sources

33. Nearly all States report that only authorized facilities may import or export radioactive sources. However, not all States have fully implemented the Guidance provisions within an established process, for example by insertion into the regulations or licence conditions, and not all States follow them in practice even if worldwide implementation is progressing.
34. Some States have signed bilateral arrangements with other countries to harmonize regulatory procedures on the import and export of radioactive sources and reported that these arrangements are an efficient means of ensuring that provisions of the import and export Guidance are effectively implemented.
35. With regard to the list of national contact points compiled by the IAEA and made available on its website, the importance of keeping national contact points details updated and, if possible, designating alternate contact points to ensure continuity in case of absence of the primary contact point were emphasized, as well as having points of contact familiar with their expected roles and responsibilities.
36. Whereas previous meeting reported use of exceptional circumstances, there were no reported use of this provision during this meeting.

Additional topics relevant to the implementation of the Code and the Guidance

37. Maintenance of the safety or security equipment and infrastructure provided/donated by the IAEA or donor countries to ensure safety and security of radioactive sources may not have been sufficiently anticipated in many countries.

“Formalized Process”

38. Following a request of the IAEA General Conference, a 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 was elaborated upon in June 2006 and subsequently noted by the IAEA Board of Governors. In particular, it governs the preparation and performance of the meetings organized by the IAEA to discuss the implementation of the Code and associated Guidance. The Secretariat suggested to update this process, essentially to introduce into the text the supplementary Guidance on the Management of the Disused Sources (published in 2018) and the “interregional” meetings. Proposed revised version of the document, with suggested modifications in track mode, was put on screen and a few changes, to increase consistency within the document, were introduced. *Participants agreed to the text as modified in plenary session.*

Topical sessions’ presentations and discussions

39. In addition to Country Group sessions, 3 topical sessions were also held in parallel:
- Safe and secure management of disused sources,
 - Safe and secure management of radioactive material that is inadvertently present in the metal scrap,
 - Safety-security interfaces for radioactive sources.

These sessions were chaired by Ms Margaret CERVERA (USA), Mr Jarlath DUFFY (Ireland) and Mr Faeizal ALI (Malaysia).

40. At the topical session on Safe and Secure Management of Disused Sources a number of presentations were made by representatives of the IAEA Secretariat and invited participants on the following topics:
- Guidance on the Management of the Disused Radioactive Sources (IAEA, Ms. O. Makarovska);
 - IAEA Assistance for the disused radioactive sealed sources management (IAEA, Mr. D. Bennett), including a report from the Technical Meeting on the Safety of Disposal of disused radioactive sealed sources management in Near Surface and Geological Disposal Facilities;
 - Industry perspective of the reuse and recycling of disused radioactive sealed sources management (ISSPA, Mr. R. Wassenaar);
 - National experience in disused radioactive sealed sources management Guidance implementation (Ukraine, Mr. K. Fuzik);
 - Regulatory experience in implementation of a borehole disposal facility for DSRS disposal (Malaysia, Mr. F. Ali).

It was emphasised that the three options (return to a supplier, re-use and recycling, disposal) should be considered in developing national strategies for disused sources management as planning for only a single option would likely be problematic. ISSPA representative confirmed that recycling continues to be the industry’s preferred option. Frequent challenges faced by States with transboundary movements of disused sources include finding a competent source manufacturer (not only original manufacturer) capable to accept the disused source and manage it safely, appropriate container availability (a valid Type B package and a valid special form source certificate may be

needed) and addressing transportation costs and logistics. It was stressed that domestic centralized storage facilities are an essential element of a national strategy.

Finally, Participants were encouraged to make a political commitment to the Code of Conduct and to adhere to the Guidance on the Management of the Disused Radioactive Sources. IAEA made participants aware that Chad and Philippines had just formally expressed political commitments to the Guidance on the Management of Disused Radioactive Sources.

41. At the topical session on Safe and Secure Management of Radioactive Material that is Inadvertently Present in the Metal Scrap a number of presentations were made by representatives of the IAEA Secretariat and invited participants on the following topics:
- Activities on transboundary movement of radioactive material inadvertently incorporated into scrap metal (IAEA, NSW, Mr. Teodros Hailu);
 - Assistance in the case of events with the inadvertent presence of radioactive material (IAEA, IEC, Mr. Florian Baciu);
 - Romani National Experience (Mr. Alexandru Eremia and Mrs. Ruxandra Popescu, DAURI Romania);
 - South Africa National Experience (Mr. Nico Uys, SAHPRA South Africa).

The presence of radioactive material could be due to NORM (naturally occurring radioactive materials), presence of orphan sources (as it happened earlier this year in the Netherlands and Germany) or by contaminated metal due to previous treatment or conditioning. Since January 2014, 177 incidents were reported to the IAEA ITDB on material out of regulatory control in the scrap metal industry, 87 of which were due to sealed sources. IAEA believes that events are under-reported.

Some States reported an existing regulatory framework for the control of scrap metal and recycling products where radioactive material may be inadvertently incorporated. Many participants recognized the need for such a system and the need for international cooperation and instruments in this area. Some States reported that scrap metal facilities were encouraged to do radiation monitoring and stressed strong need in improving such monitoring. At least 75% of portal alarms are caused by NORM. At some border crossing points, shipments of recyclable metal materials are radiologically monitored through administrative controls, visual inspections, and radiation level measurements. Conclusions of the topical session were in line with the results of Country Groups' presentations and discussions related to this topic that are summarised in paragraph 27. Participants agreed that this topic would benefit from higher visibility and greater awareness among the concerned stakeholders.

Considering that the recycling industry involves also transboundary shipments and taking note of previous initiatives (2009 Tarragona international conference, drafting of a code of conduct on the transboundary movement of radioactive material inadvertently incorporated into scrap metal and semi-finished products of the metal recycling industries), existing IAEA Safety Standard (especially SSG-17 Control of Orphan Sources and Other Radioactive Material in the Metal Recycling and Production Industries, and SSG-19 National Strategy for Regaining Control over Orphan Sources and Improving Control over Vulnerable Sources) or IAEA NSS-15 Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control, as well as the potential for updating those publications, for initiating an additional Guidance or updating of an existing Guidance to the Code, or developing another international instrument, *participants concluded that :*

- *The IAEA should continue to promote existing publications dealing with this topic;*

- *Various options are available to further address this topic and an evaluation of the benefits and drawbacks of these options should be made in the following months to decide on the best way forward.*

42. At the topical session on Safety-Security Interfaces for Radioactive Sources a number of presentations were made by representatives of the IAEA Secretariat and invited participants on the following topics:

- Safety and Security Interfaces in Regulatory Activities (IAEA, Mr. K. Horvath);
- Addressing Safety and Security Aspects during Inspection and Authorization Processes in Albania (Albania, Mr. R. Paci);
- Implementation of authorization and inspection system in Cameroon - safety and security issues (Cameroon, Mr. J.F. Beyala Ateba);
- Radiation Safety and Nuclear Security Interfaces: Paraguay's Experience in Developing Authorization and Inspection Procedures (Paraguay, Mr. F. Doncel Invernizzi)
- Safety-Security Interfaces – Industry Perspective (IIA, Mr. M. Comben).

Nuclear safety and security share the same goal, which is to protect individuals, the public and the environment from harmful effects of ionizing radiation. However, the activities that address safety and security are different and, sometimes, actions taken to strengthen safety affect security, either positively or negatively. It is therefore essential to establish a well-coordinated approach to managing the interfaces between safety and security so that relevant measures are implemented in a manner that does not compromise either safety or security and aims to capitalize on opportunities that may be available for mutual enhancement. Interfaces and associated coordination practices were identified in the field of implementation of regulatory functions, including registration, notification and authorization, inspection, enforcement and emergency/contingency management.

The implementation of graded approach, safety and security risk management, education and training and international cooperation are areas where the synergies of the two disciplines can be utilized. While it is a common goal of States to address the interfaces between safety and security, there is a range of different approaches being used by States to achieve this goal. These different approaches reflect the circumstances prevailing in various States such as the nature and scale of the facilities and activities being operated or undertaken and the nature of the national legal framework.

The provisions of combined training and advisory missions in radiation safety and nuclear security, recently developed by the IAEA to address the specific needs of the numerous regulatory bodies responsible for both areas in a harmonized manner, has been welcomed by participants. Participants encouraged the Secretariat to continue working on similar initiatives, which support countries in enhancing their national regulatory infrastructures for radiation safety and nuclear security of radioactive material, including radioactive sources.

Conclusions

43. In addition to political commitment to the Code and/or its supplementary Guidance, the National papers submitted prior to the meeting and the presentations made during the meeting show progress in implementing the provisions of the Code and its supplementary Guidance.
44. The main challenges or areas for improvement highlighted by this meeting are the following:
- a) Strengthening the national regulatory infrastructure for safety and security, especially for the States that have just established it, or are planning to do so. As a matter of fact, many States acknowledged areas of improvement in the security infrastructure and recognized challenges for the future implementation of the required measures.

- b) Establishment of national policy and strategy for
 - training in safety and security;
 - orphan sources search and recovery;
 - management of the disused radioactive sources.
 - c) Strengthening and sustaining
 - effective independence of the regulatory body;
 - human resources at regulatory bodies;
 - national training capabilities in safety and security.
 - d) Full and systematic implementation of the import-export Guidance provisions for evaluation, consent and notification.
 - e) Financial provisions for the radioactive sources, to address end of life issues, including potential bankruptcy or sudden shutdown of the organization responsible for the sources or when source replacement by a supplier is not foreseen.
 - f) Disused radioactive sources interim storage as a priority first step, conditioning and disposal.
 - g) Inadvertent presence of the radioactive material in scrap metal and metal recycling products.
45. A revised version of the "formalized process" was agreed upon by participants and is attached to this report.

Recommendations

46. Considering the presentations made in plenary session, the National papers submitted prior to the meeting, the national presentations made during the meeting and the discussions that have taken place in the meeting, the following recommendations are made, without any priority in their order:
- a) States that have not yet expressed a political commitment to the Code or/and its supplementary Guidance should consider doing so, as soon as possible. For those States having already expressed such commitment but that did not submit a National Paper or/and did not deliver an oral presentation at this meeting, a more active participation in the "formalized process" is encouraged.
 - b) The IAEA Secretariat should continue to promote political commitment to the Code and its supplementary Guidance and assist States in their implementation, in particular in the areas for improvement highlighted by this meeting.
 - c) The Implementation Practice paper initiative should continue. States are encouraged to submit such papers, whenever they are ready, and the IAEA should develop process and tools to review them and disseminate them in an effective way.
 - d) States should consider further clarifying in their regulations and/or procedures for the import-export of radioactive sources of category 1 and 2, with the support of the IAEA if needed, the contents of a shipment notification and the meaning of a positive answer to a request for consent issued as a result of the implementation of the Code and Guidance provisions.
 - e) With regard to the inadvertent presence of radioactive materials in the metal scrap and metal recycling industry products, the IAEA should continue to promote its existing publications on this topic and, considering the various available options to increase awareness on this issue and

to encourage harmonized approaches to prevent and manage such presence, from a safety and a security perspectives, evaluate the benefits and drawbacks of these options to decide on the best way forward.

- f) The IAEA should continue to offer, upon request of Member States, integrated training in radiation safety and nuclear security tailored to the specific needs of the numerous regulatory bodies that are responsible for both areas.
- g) The IAEA should continue to offer, upon request of Member States safety and security advisory missions and peer review missions and Member States are encouraged to express such request.
- h) The IAEA should continue to include topical sessions in the agenda of future meetings. However, the format would benefit from improvement, especially to allow for more time for discussion and for inputs from States as well as a better link with Country Group discussions.
- i) As called for in the current version of the “formalized process”, it is suggested that the Secretariat submits this report, including the attached revised version of the “formalized process”, to the IAEA’s policy-making organs for their information.



Fabrice Feron
Chairman
31 May 2019

**A Process for the Sharing of Information as to States' Implementation of the
Code of Conduct on the Safety and Security of Radioactive Sources
and its supplementary Guidance**
(edition of 2019)

1. The objective of the process is to promote a wide exchange of information on national implementation of the Code of Conduct on the Safety and Security of Radioactive Sources (the 'Code') and the supplementary Guidance on the Import and Export of Radioactive Sources and Guidance on the Management of the Disused Radioactive Sources ('Guidance'). The information exchange would not replace the possible review of the Guidance on the Import and Export of Radioactive Sources and the Guidance on the Management of the Disused Radioactive Sources foreshadowed in paragraphs 20 and 29, or the informal information exchange and consultation processes recommended in paragraphs 21 and 27, of these documents. Noting the non-binding nature of the Code and Guidance, such an exchange of information would:
 - a) Assist States in their national implementation of the Code and Guidance, by enabling them to learn from the experiences of others and to evaluate their own progress on implementation of the Code and Guidance;
 - b) Increase the knowledge of States concerning the capability of other States to manage Category 1 and 2 radioactive sources in a manner consistent with the provisions of the Code in order to facilitate the application of the import and export provisions of the Code and of the Guidance on the Import and Export of Radioactive Sources;
 - c) Increase the awareness of the Secretariat about the implementation of the Code and Guidance to assist them in the planning of their regular and technical co-operation programs; and
 - d) Invite and encourage more States to implement (and politically commit to) the Code and Guidance.
2. The information exchange process should be voluntary in nature. It should encourage the broadest possible participation by all member and non-member States, whether or not they have made a political commitment to the Code and/or Guidance. Intergovernmental organizations may also be invited to attend as observers.
3. There should be two elements to such an information exchange:
 - a) A dedicated international meeting, to be organised by the IAEA Secretariat and held every three years (ideally, in the year not currently used for the review processes under the CNS and the Joint Convention). Such a meeting would provide a forum for a wide exchange of information on national implementation of the Code and Guidance. Each meeting should have a duration of five days. States participating in the meeting should be urged to submit national papers and presentations, but such submission should not be mandatory.
 - b) Regional and interregional meetings to share information on experiences on implementing the Code and Guidance should be held as appropriate. Such meetings would be held on an as-needed basis and preferably prior to the international meeting, and reports from such meetings would be presented to the opening plenary of that international meeting. In order to reduce costs, these meetings may be held in conjunction with other relevant meetings. Their organisation would be left to the

participants in each meeting. The IAEA Secretariat may wish to attend these meetings, if invited. The Chairs of these meetings may also wish to provide meeting summaries to the Secretariat for transmission to other States prior to the international meeting.

4. States wishing to submit voluntary national papers in English sharing experience on implementation of the Code and Guidance are encouraged to provide these to the IAEA Secretariat four weeks in advance of the meeting to facilitate timely transmission to other States participating in the Meeting. The Secretariat would then make the papers available to other participants in advance of the meeting via a password-protected web site. Countries may choose to discuss any relevant issues in their papers. The papers might cover, but are not limited to:

- a) The infrastructure for regulatory control.
- b) The facilities and services available to the persons authorized to manage radioactive sources (paragraph 9 CoC).
- c) Training of staff in the regulatory body, law enforcement agencies and emergency service organizations (paragraph 10 CoC).
- d) Experience in establishing a national register of radioactive sources (paragraph 11 CoC).
- e) 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 (paragraphs 8(b), 12 and 13 CoC).
- f) Approaches to managing radioactive sources at the end of their life cycles (paragraphs 14 and 15 CoC and the Guidance on the Management of Disused Radioactive Sources).
- g) Experience with arrangements for implementing the import and export provisions of the Code (paragraphs 23 to 29) and the Guidance on the Import and Export of Radioactive Sources.
- h) Any other issues relevant to the implementation of the Code and Guidance.

5. The papers may briefly describe the current circumstances in the country with regard to the aforementioned topics. They may also comment on achievements and success stories, on difficulties encountered and lessons learned and/or on areas where improvements were still needed, and set out the future strategies for addressing these matters. Papers should be brief – they do not need to be more than ten pages in length. They should contain a one-page executive summary.

6. The international meeting should commence with an opening plenary to discuss organisational issues, hear and discuss reports from the preceding regional and interregional meetings (see paragraph 3(b) above) and discuss any issues relevant to the implementation of the Code and/or Guidance of particular importance that a State may wish to raise. That plenary should not last for more than one day. The opening plenary should decide upon the allocation of time between the Country Groups and the closing plenary, drawing upon the suggestions in the following paragraphs as appropriate.

7. The opening plenary would be followed by meetings of Country Groups. Allocation of States to Country Groups would be done initially alphabetically, with discretion for the Secretariat to adjust that allocation to ensure that there is an approximately even spread of experience across the Groups. At the first meeting, there should be a total of three groups. Each meeting should decide upon how many Country Groups there should be at the next meeting. States choosing to make a presentation would do so in their allocated Country

Group, but all participants are otherwise free to attend and take part in the discussions in other Country Groups. The chairman of the meeting and members of the Secretariat should be free to take part in any Country Group discussions. National presentations may be made by oral presentation and/or by poster presentations.

8. The Country Groups would each have their own chair, to be appointed by the opening plenary. In those Country Groups, States could make a voluntary national presentation, of up to approximately 15 minutes in duration, on their national experiences. There would be no obligation on States to make an oral or poster presentation, even if they have submitted a national paper. After the conclusion of those presentations (which in total should take no more than 50% of the time allocated to the Country Group sessions), there should be open discussions on a range of topics, such as those identified in paragraph 4. The Country Group discussions should conclude by the fourth day of the meeting.

9. After the conclusion of the Country Group sessions, all participating States would again meet together in plenary. That plenary would hear reports from the Chairs of the Country Groups on the discussions within those Groups, and may further discuss particular topics of interest identified by those reports. Any other issues relevant to the implementation of the Code and/or Guidance of particular importance that a State may wish to raise may also be discussed in that plenary meeting. The plenary may also make recommendations as to actions which might be taken by the IAEA Secretariat to assist States in their implementation of the Code and/or Guidance, and should discuss the content of the Chairman's report (see paragraph 10 below).

10. The Chairman should prepare a report of the meeting, of approximately 5-6 pages. That report would not identify any participating State by name, but would be grouped under broad themes. The report might also identify areas where the process might be improved for future meetings. In that way, the broad outcomes of the discussions at the meeting would be reported to the governing bodies of the IAEA and to the public. After each international meeting, each State should indicate whether its national paper should be made publicly available by the Secretariat. Diagram 1 gives a pictorial overview of the process.

Diagram 1. Pictorial overview of process

