

**JOINT STATEMENT**  
**STRENGTHENING THE SECURITY OF**  
**HIGH ACTIVITY SEALED RADIOACTIVE SOURCES (HASS)**

**AUSTRALIA, BELGIUM, CANADA, CHILE, CZECH REPUBLIC, DENMARK, FINLAND, FRANCE, GERMANY, HUNGARY, ISRAEL, ITALY, KAZAKHSTAN, LITHUANIA, MOROCCO, NETHERLANDS, NORWAY, PHILIPPINES, POLAND, REPUBLIC OF KOREA, ROMANIA, SINGAPORE, SPAIN, SWEDEN, SWITZERLAND, THAILAND, UNITED KINGDOM, UNITED STATES AND INTERPOL**

**A/** The international framework on the safety<sup>1</sup> and security of high activity sealed radioactive sources<sup>2</sup> includes international conventions<sup>3</sup> and non-legally binding IAEA guidance and recommendations<sup>4</sup>, supplemented by periodic review meetings and progress reports processes<sup>5</sup>. The importance and quality of these texts should encourage their universal implementation.

Despite the quality and progressive strengthening of this international framework, the management of the end of life of HASS remains an area for further action. In this regard, we note that to date no overall assessment of this framework has been undertaken. Through such an assessment, the Member States of the IAEA would be able to make decisions as to the appropriate approach to strengthen the existing framework to better manage the end of life of HASS withdrawn from service, based upon the best available legal and technical data.

Upgrades of the international framework should be related to a complete life-cycle management of HASS, including when appropriate the return-to-a-supplier principle. Removing disused HASS to a third location for reuse, recycling or disposal may be considered. To avoid an inadequate storage of disused HASS, it may also be necessary to encourage the creation of national interim storage and/or disposal facilities. This supposes, in turn, encouraging the development of national policies for the management of disused HASS by each user country. Returning HASS to a supplier can require substantial administrative coordination in order to come to mutually acceptable conditions and arrangements for the parties involved. In this regard, policies carried out by supplier States to anticipate on the end of life of HASS after they are withdrawn from service should be encouraged. Further IAEA guidance and recommendations on these aspects may represent a useful contribution.

**B/** The specific needs met by HASS in certain medical applications or industrial technologies may over time and in some cases be met by technologies based on sources of lower activity and, in some specific cases, no radioactive sealed sources at all. Further such non-HASS technologies are being pursued under an international research and development effort. As replacement technologies

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<sup>1</sup> This approach integrating safety and security is reflected in the Code of Conduct on the safety and security of radioactive sources. It is also important to stress that safety measures, by making it more difficult to access radioactive sources may also contribute indirectly to their security.

<sup>2</sup> The definition of such HASS will be appreciated by sponsors regarding the forums in which this gift basket will be used and the specific topics that will be dealt with.

<sup>3</sup> Especially the *International Convention on the Suppression of Acts of Nuclear Terrorism* (ICSANT) which entered into force in 2007 and has 86 State Parties in 2015.

<sup>4</sup> The *Code of Conduct on the Safety and Security of Radioactive Sources* (the “Code of Conduct”) and its related guidance are non-legally binding. 128 States have made a political commitment towards the recommendation contained in the Code and related guidance. IAEA Nuclear Safety Standards and Nuclear Security Series (notably NSS n°9, 11 and 14) complement the Code and its related guidance.

<sup>5</sup> A formalized report process for States in using the Code of Conduct was established in 2006 to assess their progress, identify further needs and benefit from each other’s experience.

mature, end-users and States can consider factors such as safety, performance, convenience, and cost. Users should be encouraged investigate their possibilities for a transition to the comparable or better technology if it exists. Their progressive use of such technology can potentially help to reduce management constraints for end-users and States, but would also contribute to reduce the global amount of HASS in the world as one way to limit some security issues associated to these radioactive sources.

In this regard, the overall volume of HASS could be ultimately limited to the applications for which suitable replacement technologies do not exist, taking into account the state of scientific and technical knowledge, the economic sustainability for the end-users and the acceptability for States and end-users. Some achievements have already been observed in terms of technology transition<sup>6</sup>. To achieve this outcome, economically and technically viable and attractive technologies would need to be developed through research and development. Barriers to the spread of such technologies (technical, legal, economic etc.) would also need to be identified and bridged.

**Such a transition effort can only be a long-term non-prescriptive objective. It must remain an encouragement to States to support R&D on innovative technologies and for end-users to adopt those that have a positive overall cost-benefit balance regarding their technical efficacy, their economic benefit and their safety and security implications, both for the authorities and end-users. This encouragement must, at no point, be interpreted in a way that would affect States' sovereign technological choices and their right to develop and use technologies using radioactive materials for peaceful purposes.**

C/ A group of supplier States has worked together towards the aim of harmonizing export control procedures for HASS observing the principles of the Code of Conduct and related guidance and to improve the complete life-cycle management for HASS. Some States have cooperated with the IAEA to set up programs for repatriation of vulnerable disused HASS exported in the past, while recognizing that these operations are expensive and have to be considered in a subsidiary approach. All efforts should be made to ensure that viable, safe and secure end-of-life solutions will be available in the future for high-activity sealed sources currently being exported.

This implies, in particular, a stronger cooperation between supplier States as well as between these supplier States and recipient States to develop good practises on imports and exports and on the management of the end of life of HASS, including on their return-to-a-supplier and for their removal to a third location for recycling or disposal.

The *Ad Hoc Group of Supplier States*, an informal group that meets annually in the margins of the IAEA meeting on the Code of Conduct, could be the appropriate forum to develop such good practices. Furthermore, information exchanges between supplier States but also between all States could be useful to ease the end of life management process after a source is withdrawn from service.

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<sup>6</sup> Though there has been no medical or scientific study to compare the two technologies, the technical possibility exists to replace blood irradiators using cesium chloride high activity sources by X-ray devices. Similarly, X-Ray generators may be used for certain applications in industrial radiography.

Gathered in Washington on the occasion of the fourth Nuclear Security Summit, the leaders of Australia, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Hungary, Israel, Italy, Kazakhstan, Lithuania, Morocco, Netherlands, Norway, Philippines, Poland, Republic of Korea, Romania, Singapore, Spain, Sweden, Switzerland, Thailand, United Kingdom, United States and Interpol recognize that the shared goal of nuclear security can be advanced by strengthening further the security of high activity sealed radioactive sources (HASS) and, considering what precedes, affirm their commitment to encourage and support such an effort through the following scope of work, from 2016 onwards:

- **Strengthening further the international framework applicable to radioactive sources by:**
  - ✓ **Continuing to encourage States that have not yet done so to become party to the *International Convention on the Suppression of Acts of Nuclear Terrorism* and to make a political commitment towards the *Code of Conduct on the Safety and Security of Radioactive Sources* and to its related guidance.**
  - ✓ **Encouraging the IAEA to assess the existing international framework** applicable to radioactive sources in order to identify the gaps related to their security (i.e. in their physical protection) and associated issues of safety, and to make guidance and recommendations to bridge such gaps.
  - ✓ **Encouraging the IAEA to develop guidance and recommendations on the long-term management of disused HASS** in order to identify appropriate storage and disposal practices as well as to define better the requirements to ensure the safe and secure end-of-life management of HASS, including the return-to-a-supplier principle and the ways it could be put into practice.
- **Supporting the development of non-HASS technologies (whether isotopic or not) through research and development, and promoting them as far as technically and economically acceptable by:**
  - ✓ **Encouraging the IAEA and Member States to promote and support research efforts** on the development of technically and economically realistic and acceptable non-HASS technologies, incorporating in these efforts the manufacturers, end-users, standards-setting bodies and technical experts;
  - ✓ **Encouraging the IAEA and Member States to initiate discussions on how to take into consideration radiological security** implications in their regulatory arrangements for HASS-based technologies;
  - ✓ **Encouraging the IAEA and Member States to exchange on the barriers** that limit or could limit the spread of non-HASS technologies and on possible ways to tackle them.
- **Deepening further international cooperation to better manage the end of life of HASS by:**
  - ✓ **Promoting the development of safe and secure storage** for HASS as well as efficient disposal facilities in the recipient States, such as the support of storage until arrangements for long-term disposal are implemented;

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- ✓ **Providing assistance to requesting States** which lack adequate resources to help them, to the extent feasible, to secure and dispose of disused HASS exported by the sponsoring States;
- ✓ **Encouraging supplier States to use the existing IAEA guidance and recommendations and to share good practices** on the export of HASS and on the complete life-cycle management of HASS, including the return-to-a-supplier principle;
- ✓ **Encouraging information exchanges** among supplier States on the reporting of export and repatriation of radioactive sources, as well as on practices of repatriation or other methods of securing disused HASS previously exported in foreign countries; and
- ✓ **Encouraging States to voluntarily share information, through the IAEA, on how they dispose of disused radioactive sources** and on their national legislation and practices related to the security of high activity radioactive sealed sources.

**The sponsoring States further commit to report periodically on the progress achieved in these fields in the context of the review process of IAEA's Code of Conduct on the Safety and Security of Radioactive Sources.**