

IRRS Good Practices

The Global Safety Regime (Module 2)

International obligations and arrangements for international cooperation (2.1)

IAEA – Initial Mission

Mission Date: September 2024

Good Practice

The IAEA has demonstrated its commitment to the safety standards and made use of the peer review system designed for Member States for a review of its internal implementation of the safety standards, as mandated by the IAEA Statute.

Observation

The IAEA is not a State, and the IRRS peer review methodology was not developed with the potential application to a non-State in mind. Nevertheless, the IAEA determined that an IRRS mission would offer an opportunity for a peer review of the implementation of the safety standards, in accordance with the IAEA Statute, in its own program of work. This is the first time an IRRS mission to a non-State has been requested and carried out.

Basis

GSR Part 1 (Rev. 1) Requirement 14 states that “The government shall fulfil its respective international obligations, participate in the relevant international arrangements, including international peer reviews, and promote international cooperation and assistance to enhance safety globally.

GSR Part 1 (Rev 1) para 3.2 states that “The features of the global safety regime include:

- (a) International conventions that establish common obligations and mechanisms for ensuring protection and safety;
- (b) Codes of conduct that promote the adoption of good practices in the relevant facilities and activities;
- (c) Internationally agreed IAEA safety standards that promote the development and application of internationally harmonized safety requirements, guides and practices;
- (d) International peer reviews of the regulatory control and safety of facilities and activities, and mutual learning by participating States;
- (e) Regular multilateral and bilateral cooperation between the relevant national and international organizations to enhance safety by means of harmonized approaches as well as to increase the quality and effectiveness of safety reviews and inspections, by means of sharing of knowledge and feedback of experience.”

IAEA Comments/Highlights

Member States (MS) of the IAEA can request peer reviews, in the form of IRRS missions, to review their governmental, legal and regulatory framework for Safety, as well as the interface with nuclear security.

This initiative exemplifies transparency and underscores the IAEA's commitment to subjecting its own activities to the same level of scrutiny and methodology applied in peer reviews of national frameworks requested by Member States.

The 2024 IRRS mission reviewed the implementation of the framework for safety within the organization that is the 'custodian' of the framework - the IAEA itself. This marks the first time an IRRS mission has been hosted by a non-State entity. This exemplifies transparency and highlight the IAEA's willingness to subject its own activities to the same level of scrutiny - and following the same methodology – as applied in peer reviews of national frameworks requested by Member States.

The IRRS mission to IAEA provides a valuable experience for other international organizations with similar mandates and obligations, and enriches the safety community at large.

Argentina – Initial Mission

Mission Date: August 2022

Good Practice

ARN's outstanding education and training programme in radiation and nuclear safety that involved Latin America and the Caribbean is considered a good practice in promoting and enhancing safety globally.

Observation

ARN has demonstrated a long-standing commitment of more than 40 years of enhancing and promoting safety through conducting many education and training activities that involved mainly Latin Americans and the Caribbean and 19 graduates from other Regions, including a Postgraduate Course in Radiological Protection and Nuclear Safety, and several other training courses and workshops for staff of regulatory bodies and for other professional groups, such as the first responders in radiological emergencies or the medical community.

Basis

GSR Part 1 (Rev 1) Requirement 14 states that “The government shall fulfil its respective international obligations, participate in the relevant international arrangements, including international peer reviews, and promote international cooperation and assistance to enhance safety globally.

IAEA Comments/Highlights

A notable practice in promoting global safety is through Argentina's intense and sustained education and training in radiation and nuclear safety that includes the following:

- 40 years of conducting postgraduate educational courses in radiation protection and nuclear safety within the framework of cooperation agreements between the Nuclear Regulatory

Authority of Argentina (ARN), University of Buenos Aires-Faculty of Engineering and the International Atomic Energy Agency. ARN manages the "Long-Term Agreement (LTA)" with IAEA since 2008 by which the "Regional Training Centre for Latin America and the Caribbean in Nuclear, Radiation, Transport and Waste Safety" was established. The University of Buenos Aires awards the postgraduate university diplomas of "Specialist in Radiation Protection and Safety of Radiation Sources" and "Specialist in Nuclear Safety". Both courses have been reviewed and updated in accordance with the IAEA standard syllabus and accredited by the National Commission for University Evaluation and Accreditation (CONEAU). The courses include practical training in laboratories of the Education and Training Unit of ARN and of regulated facilities of the medical, research and nuclear fields.

- CNEA and ARN are part of the Latin American Network for Education and Training in Nuclear Technology (LANENT) and have hosted various training courses related to nuclear and radiological safety organized by the IAEA.

Norway – Initial Mission

Mission Date: June 2019

Good Practice

The Government of Norway through establishing a Nuclear Action Plan (NAP) and continuing it for more than 20 years showed a long-term commitment for international cooperation in safety and security. By strategically providing funding for projects to ensure risk reduction regarding serious accidents and radioactive contamination as well as to prevent nuclear and other radioactive material from falling into the wrong hands, Norway's NAP had substantially contributed to increasing safety and security in Russia and Ukraine.

Observation

In 1995 Norway established a NAP that provided the basis for its cooperation on nuclear safety and security, primarily with Russia and Ukraine. Through NAP, projects were initiated and financed that had helped to secure nuclear and other radioactive material and had reduced the risk of accidents and incidents.

Basis

- (1) GSR Part 1 (Rev 1) Requirement 14 states that *"The government shall fulfil its respective international obligations, participate in the relevant international arrangements, including international peer reviews, and promote international cooperation and assistance to enhance safety globally."*
- (2) GSR Part 1 (Rev 1) Requirement 14 para. 3.2 (d) states that *"The features of the global safety regime include:
... Regular multilateral and bilateral cooperation between the relevant national and international organizations to enhance safety by means of harmonized approaches as well as to increase the quality and effectiveness of safety reviews and inspections."*

IAEA Comments/Highlights

Norway established a Nuclear Action Plan (NAP) in 1995 that provided the basis for its cooperation on nuclear safety and security with Russia, Ukraine and other countries in Eurasia. This plan had been adapted and renewed in 1998, 2005, 2008, 2013 and 2018 and until June 2019 the Government and Parliament had made available funds to initiatives of more than 2 billion NOK.

The two primary objectives under NAP were:

- To reduce the risk of serious accidents and radioactive contamination;
- To prevent nuclear and other radioactive material from falling into the wrong hands.

Projects were carefully selected and prioritized. Through the NAP, measures were implemented that had helped to secure nuclear and other radioactive material and had reduced the risk of accidents and incidents. Norway's cooperation with Russia was the cornerstone of these efforts and for years had provided an important channel for building trust and exchanging expertise.

Norway's efforts were highly regarded internationally. International cooperation and coordination were crucial for achieving good results. By implementing the NAP, Norway showed a long-term commitment to increasing nuclear safety and security aspects within Europe and worldwide.

Australia – Initial Mission

Mission Date: November 2018

Good Practice

Demonstrating a commitment to enhancing national uniformity and consistency, the Australian Governments had actively engaged in a comprehensive, multijurisdictional international peer review. The active engagement by Commonwealth, State and Territory regulatory bodies, allowed the IRRS team to develop recommendations and suggestions that should contribute to the safe use of radiation for the benefit of all Australians. This was the first IRRS mission that included a holistic review of the nuclear and radiation safety framework across multiple regulatory jurisdictions.

Observation

Australia had requested a comprehensive review of their nuclear and radiation safety framework. The scope of the IRRS mission included the Commonwealth as well as the other national jurisdictions. States and Territories actively participated in the review of their authorization, inspection, review and assessment, enforcement, regulation of sources, medical applications and transport. In addition, national uniformity was chosen as the topic for the policy issue. Australia was the first country with a federal system of government to invite such a comprehensive review with participation from all national jurisdictions.

Basis

- (1) GSR Part 1 (Rev 1) Requirement 14 states that *“The government shall fulfil its respective international obligations, participate in the relevant international arrangements, including international peer reviews, and promote international cooperation and assistance to enhance safety globally.”*
- (2) GSR Part 1 (Rev 1) Requirement 14 para. 3.2 (d) states that *“The features of the global safety regime include: ... (d) International peer reviews of the regulatory control and safety of facilities and activities, and mutual learning by participating States; ...”*
- (3) GSR Part 1 (Rev 1) Requirement 7 states that *“Where several authorities have responsibilities for safety within the regulatory framework for safety, the government shall make provision for the effective coordination of their regulatory functions, to avoid any omissions or undue duplication and to avoid conflicting requirements being placed on authorized parties.”*

IAEA Comments/Highlights

Australia, on the Commonwealth level, had undergone international peer reviews of the regulatory control and safety of facilities and activities.

In December 2015, Australia requested an IRRS mission to review the arrangements for radiation protection and nuclear safety in Australia. The intended scope for the review was the regulatory framework for radiation protection and nuclear safety of the Commonwealth of Australia and corresponding arrangements in the States and Territories that form part of the Australian Federation.

Luxembourg – Initial Mission

Mission Date: June 2018

Good Practice

Active participation in many international activities related to nuclear safety showed how small non-nuclear countries could contribute to enhance global safety regime.

Observation

Luxembourg is a small non-nuclear country that was participating in a very pro-active manner, in international fora and activities aiming to the strengthening of the global nuclear safety regime.

Basis

- (1) GSR Part 1 (Rev. 1) Requirement 14 states that *“The government shall fulfil its respective international obligations, participate in the relevant international arrangements, including international peer reviews, and promote international cooperation and assistance to enhance safety globally.”*

- (2) GSR Part 1 (Rev. 1) Requirement 14, par. 3.2 (e) states that “*Regular multilateral and bilateral cooperation between the relevant national and international organizations to enhance safety by means of harmonized approaches as well as to increase the quality and effectiveness of safety reviews and inspections, by means of sharing of knowledge and feedback of experience.*”

IAEA Comments/Highlights

Provisions for the active participation of Luxembourg representatives in international fora and activities were included in the law and regulations.

Some features related to the global safety regime were also part of the international policies and activities of Luxembourg, namely:

- the participation on review of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management and of the Convention on Nuclear Safety (CNS);
- the political support to the Code of Conduct on the Safety and Security of Radioactive Sources and its Supplementary Guidance on the Import and Export of Radioactive Sources and their provisions - they were reflected into the national regulations in 2006;
- the IAEA peer reviews, IRRS and ARTEMIS missions, invited by Luxembourg in 2018.

Luxembourg also put in place international agreements with neighbouring countries (e.g., France and Belgium) for exchanging information in case of emergencies and on nuclear safety.

Botswana – Initial Mission

Mission Date: October 2017

Good Practice

Through participation in a wide range of international instruments and bilateral and multilateral arrangements, as well as International Peer Reviews, Botswana strongly recognized the importance of International cooperation in relation to safety in contributing to the development of a global safety regime.

Observation

Botswana was a contracting party to a wide range of nuclear safety related international conventions and agreements and had a number of bilateral and multilateral agreements in place and participates in international peer reviews that enhanced safety through harmonized approaches.

Basis

GSR Part 1 (Rev 1) Requirement 14 states that ‘The government shall fulfil its respective international obligations, participate in the relevant international arrangements, including international peer reviews, and promote international cooperation and assistance to enhance

safety globally’.

IAEA Comments/Highlights

Botswana also had a number of bilateral and multilateral agreements in place to enhance regional safety through harmonized approaches within Southern Africa particularly around import and export of radiation sources.

Botswana also participated in the African Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA), an intergovernmental agreement that provided a framework for African Member States to intensify their collaboration through programmes and projects focused on the specific shared needs of its members.

Lithuania – Initial Mission

Mission Date: April 2016

Good Practice

Lithuania is actively engaged in international cooperation; including international arrangements, peer reviews and international support programmes.

Observation

Lithuania actively participated in a number of international bodies, working groups, committees and international peer reviews, also Lithuania hosted many peer reviews missions and training courses and workshops for professionals from other countries especially in the radiation protection field to promote international cooperation and assistance to enhance safety globally.

Basis

GSR Part 1 Requirement 14 states that “The government shall fulfil its respective international obligations, participate in the relevant international arrangements, including international peer reviews, and promote international cooperation and assistance to enhance safety globally”.

IAEA Comments/Highlights

In addition to the usual international obligations and arrangements for international cooperation and assistance expected to be fulfilled by Member States, at the time of the IRRS mission, RSC was an active member of various working groups, societies and networks, such as the Heads of European Radiological Protection Competent Authorities (HERCA), the Group of Experts under the Article 31 of the European Treaty, the Council of the Baltic Sea States (CBSS) Experts Group on Nuclear and Radiation Safety, the European Training and Education in Radiation Protection Platform (EUTERP) and the European Study of Occupational Radiological Exposure (ESOREX). The State Nuclear Power Safety Inspectorate (VATESI) was also involved in working groups that were developing international requirements and rules for facilitating exchange of experience and best practice in the regulation and supervision of

the activities in the nuclear energy area. VATESI worked in cooperation with a number of international organizations including the International Atomic Energy Agency (IAEA), the European Nuclear Safety Regulators Group (ENSREG), the Western European Nuclear Regulators Association (WENRA) and the European Nuclear Security Regulators Association (ENSRA).

A number of international peer reviews of both the regulatory system and of the safety of facilities had been hosted by Lithuania, for example, IPPAS, IRRS, OSART, RaSSIA, INSARR, EPREV and EduTA. On the other way, VATESI and RSC staff provide experts to participate in IAEA international peer reviews.

At last, RSC in cooperation with IAEA organized a number of training courses and workshops for professionals from other countries to promote international cooperation for the purpose of enhancing safety globally.