SPESS F
Document Preparation Profile (DPP)
Version 5 dated 18 July 2022

1. IDENTIFICATION

Document Category or batch of publications to be revised in a concomitant manner

Safety Guide and Implementing Guide

Working ID: **DS533/NST067**

Proposed Title: **Management of the interfaces between nuclear and radiation safety and nuclear security**

Proposed Action: **new publication**

Review Committee(s) or Group: **NSGC, NUSSC, WASSC, RASSC, TRANSSC, EPReSC**

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2. BACKGROUND

The IAEA Safety Fundamentals, SF-1, stipulates that "safety measures and security measures have in common the aim of protecting human life and health and the environment" from harmful effects of ionizing radiation, and that "Safety measures and security measures must be designed and implemented in an integrated manner so that security measures do not compromise safety and safety measures do not compromise security". Relevant requirements are established in several IAEA Safety Requirements publications: for example, Requirement 12 of IAEA Safety Standards Series No. GSR Part 1 (Rev.1) states that "within the governmental and legal framework, adequate infrastructural arrangements be established for interfaces of safety with arrangements for nuclear security and with the state system of accounting for, and control of, nuclear material". Further, IAEA Safety Standards Series No. GSR Part-2, requires that potential impacts of security measures on safety and potential impacts of safety measures on security be identified and resolved without compromising safety or security. Requirements for the identification and management of interfaces between nuclear and radiation safety and nuclear security are also established in IAEA Safety Standards Series No. GSR Part 3, GSR Part 5, SSR-2/1 (Rev. 1), SSR-2/2 (Rev. 1), SSR-3, SSR-4 and SSR-5. In addition, GSR Part 7 states that "Arrangements shall be developed, as appropriate, for the coordination of emergency preparedness and response and of protocols for operational interfaces between operating organizations and authorities at the local, regional and national levels, including those organizations and authorities responsible for the response to conventional emergencies and to nuclear security events".

Similarly, the IAEA Nuclear Security Fundamentals, NSS-20, stipulates that "Nuclear security and nuclear safety have in common the aim of protecting persons, property, society and the environment" from harmful effects of ionizing radiation, and that "Security measures and safety measures have to be designed and implemented in an integrated manner to develop synergy between these two areas and also in a way that security measures do not compromise safety and safety measures do not compromise security". IAEA Nuclear Security Series Nos 13, 14 and 15 provide recommendations on the interfaces of nuclear security with safety for operators, competent authorities and the State.

Feedback from different IAEA conferences, technical meetings (in particular the IAEA Technical Meeting on the Safety and Security Interface – Approaches and National Experiences, held in Vienna in 2018), IAEA peer review missions, training courses and workshops have highlighted the importance of interface management in order to take advantage of the synergies and to avoid adverse effects of potential conflicts, and therefore there is a need for further guidance on how to meet the safety requirements established in the IAEA Safety Standards Series and the recommendations established in the IAEA Nuclear Security Series in a harmonized, holistic and complementary manner.

3. JUSTIFICATION FOR THE PRODUCTION OF THE DOCUMENT

Recommendations on certain aspects of the safety interfaces with security (i.e. how security should be considered in implementation of safety measures) are provided in various Safety Guides. Equally, certain aspects of the security interfaces with safety (i.e. how safety should be considered in implementation of security measures) are covered in various Implementing Guides and Technical Guidance publications. There are also several informational publications addressing aspects of the interfaces between nuclear and radiation safety and nuclear security (see Section 6 of this DPP). However, there is currently no publication within the IAEA Safety Standards Series or IAEA Nuclear Security Series that provides guidance on how to manage the interfaces between nuclear and radiation safety and nuclear security from an overarching perspective. A new publication in each series providing identical guidance on the effective and proactive management of the interfaces between nuclear and radiation safety and nuclear security can have a very positive effect on both areas, enabling synergies between them and avoiding compromising each other. This would be especially useful for countries embarking a nuclear power programme or being in the phase of establishment of their governmental, legal and regulatory framework.

The Commission on Safety Standards (CSS) has, for its seventh term, a recommendation "to develop publications on how to address the safety security interfaces", which includes the development of joint publications. The Nuclear Security Guidance Committee (NSGC), at its 16th meeting, expressed its interest to explore the possibility of "a jointly-published Safety Standard – Nuclear Security Series document on the subject of safety-security interfaces, in accordance with respective procedures, …[of] high-level, strategic and have a tight focus."

The need for such guidance has also been identified recently by the Advisory Group for Nuclear Security (AdSec) and the International Nuclear Safety Group (INSAG).

4. OBJECTIVE

The objective of the publication is to provide overarching guidance on managing the interfaces between nuclear and radiation safety and nuclear security so as to ensure that safety measures and security measures are designed and implemented in a coordinated manner. This will facilitate the implementation of the relevant requirements of the IAEA Safety Standards Series and recommendations of the IAEA Nuclear Security Series.

The target audience of this publication are regulatory bodies and other competent authorities, as well as operators of facilities and activities (including shippers and carriers) involved in the management or regulation of the nuclear and radiation safety and nuclear security, including emergency planning and response and nuclear material accountancy and control. This publication may also be useful for technical support services.

5. SCOPE

The publication will provide guidance on management of the interfaces between nuclear and radiation safety and nuclear security at all stages of the lifetime and operational conditions of all facilities and the duration of activities, including transport. Additionally, the publication will provide guidance on

management of the interfaces in emergency preparedness and response, nuclear material accountancy and control, as well as for nuclear and other radioactive material out of regulatory control.

6. PLACE IN THE OVERALL STRUCTURE OF THE RELEVANT SERIES AND INTERFACES WITH EXISTING AND/OR PLANNED PUBLICATIONS

The publication will be a safety guide and an implementing guide.

The proposed publication will interface with the following:

1. EUROPEAN ATOMIC ENERGY COMMUNITY, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, INTERNATIONAL MARITIME ORGANIZATION, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, WORLD HEALTH ORGANIZATION, Fundamental Safety Principles, IAEA Safety Standards Series No. SF-1, IAEA, Vienna (2006).
2. INTERNATIONAL ATOMIC ENERGY AGENCY, Objective and Essential Elements of a State's Nuclear Security Regime, IAEA Nuclear Security Series No. 20, IAEA, Vienna (2013).
3. INTERNATIONAL ATOMIC ENERGY AGENCY, Governmental, Legal and Regulatory Framework for Safety, IAEA Safety Standards Series No. GSR Part 1 (Rev. 1), IAEA, Vienna (2016).
4. INTERNATIONAL ATOMIC ENERGY AGENCY, Leadership and Management for Safety, IAEA Safety Standards Series No. GSR Part 2, IAEA, Vienna (2016).
5. INTERNATIONAL ATOMIC ENERGY AGENCY, Safety Assessment for Facilities and Activities, IAEA Safety Standards Series No. GSR Part 4 (Rev. 1), IAEA, Vienna (2016).
6. EUROPEAN COMMISSION, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL LABOUR ORGANIZATION, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, WORLD HEALTH ORGANIZATION, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, IAEA Safety Standards Series No. GSR Part 3, IAEA, Vienna (2014).
7. INTERNATIONAL ATOMIC ENERGY AGENCY, Predisposal Management of Radioactive Waste, IAEA Safety Standards Series No. GSR Part 5, IAEA, Vienna (2009).
8. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL LABOUR ORGANIZATION, INTERNATIONAL MARITIME ORGANIZATION, INTERPOL, OECD NUCLEAR ENERGY AGENCY, PAN AMERICAN HEALTH ORGANIZATION, PREPARATORY COMMISSION FOR THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION, UNITED NATIONS ENVIRONMENT PROGRAMME, UNITED NATIONS OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS, WORLD HEALTH ORGANIZATION, WORLD METEOROLOGICAL ORGANIZATION, Preparedness and Response for a Nuclear or Radiological Emergency, IAEA Safety Standards Series No. GSR Part 7, IAEA, Vienna (2015).
9. INTERNATIONAL ATOMIC ENERGY AGENCY, Site Evaluation for Nuclear Installations, IAEA Safety Standards Series No. SSR-1, IAEA, Vienna (2019).
10. INTERNATIONAL ATOMIC ENERGY AGENCY, Safety of Nuclear Power Plants: Design, IAEA Safety Standards Series No. SSR-2/1 (Rev. 1), IAEA, Vienna (2016).
11. INTERNATIONAL ATOMIC ENERGY AGENCY, Safety of Nuclear Power Plants: Commissioning and Operation, IAEA Safety Standards Series No. SSR-2/2 (Rev. 1), IAEA, Vienna (2016).
12. INTERNATIONAL ATOMIC ENERGY AGENCY, Safety of Research Reactors, IAEA Safety Standards Series No. SSR-3, IAEA, Vienna (2016).

13. INTERNATIONAL ATOMIC ENERGY AGENCY, Safety of Nuclear Fuel Cycle Facilities, IAEA Safety Standards Series No. SSR-4, IAEA, Vienna (2017).
14. INTERNATIONAL ATOMIC ENERGY AGENCY, Disposal of Radioactive Waste, IAEA Safety Standards Series No. SSR-5, IAEA, Vienna (2011).
15. The Convention on the Physical Protection of Nuclear Material, INFCIRC/274/Rev.1, IAEA, Vienna (1980).
16. Amendment to the Convention on the Physical Protection of Nuclear Material, INFCIRC/274/Rev.1/Mod.1, IAEA, Vienna (2016).
17. INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5), IAEA Nuclear Security Series No. 13, IAEA, Vienna (2011).
18. INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Recommendations on Radioactive Material and Associated Facilities, IAEA Nuclear Security Series No. 14, IAEA, Vienna (2011).
19. EUROPEAN POLICE OFFICE, INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CIVIL AVIATION ORGANIZATION, INTERNATIONAL CRIMINAL POLICE ORGANIZATION–INTERPOL, UNITED NATIONS INTERREGIONAL CRIME AND JUSTICE RESEARCH INSTITUTE, UNITED NATIONS OFFICE ON DRUGS AND CRIME, WORLD CUSTOMS ORGANIZATION, Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control, IAEA Nuclear Security Series No. 15, IAEA, Vienna (2011).
20. INTERNATIONAL ATOMIC ENERGY AGENCY, Establishing the Nuclear Security Infrastructure for a Nuclear Power Programme, IAEA Nuclear security Series No. 19, IAEA Vienna (2013).
21. INTERNATIONAL ATOMIC ENERGY AGENCY, Physical Protection of Nuclear Material and Nuclear Facilities (Implementation of INFCIRC/225/Rev.5), IAEA Nuclear Security Series No. 27-G, Vienna (2018)
22. INTERNATIONAL ATOMIC ENERGY AGENCY, Security During the Lifetime of a Nuclear Facility, IAEA Nuclear Security Series No. 35-G, Vienna (2019)
23. INTERNATIONAL ATOMIC ENERGY AGENCY, Computer Security Techniques for Nuclear Facilities, IAEA Nuclear Security Series No. 17-T (Rev. 1), IAEA, Vienna (2021)
24. INTERNATIONAL ATOMIC ENERGY AGENCY, Computer Security for Nuclear Security, IAEA Nuclear Security Series No. 42-G, IAEA, Vienna (2021)
25. INTERNATIONAL ATOMIC ENERGY AGENCY, Engineering Safety Aspects of the Protection of Nuclear Power Plants against Sabotage, IAEA Nuclear Security Series No. 4, IAEA, Vienna (2007)
26. INTERNATIONAL ATOMIC ENERGY AGENCY, Security of Nuclear Information, IAEA Nuclear Security Series No. 23-G, IAEA, Vienna (2015)
27. INTERNATIONAL ATOMIC ENERGY AGENCY, Security of Nuclear Material in Transport, IAEA Nuclear Security Series No. 26-G, IAEA, Vienna (2015).
28. INTERNATIONAL ATOMIC ENERGY AGENCY, Handbook on the Design of Physical Protection Systems for Nuclear Material and Nuclear Facilities, IAEA Nuclear Security Series No. 40-T, IAEA, Vienna (2021)
29. INTERNATIONAL NUCLEAR SAFETY GROUP, The Interface Between Safety and Security at Nuclear Power Plants, INSAG-24, IAEA, Vienna (2010).
30. The System View of Nuclear Security and Nuclear Safety, Identifying Interfaces and Building Synergies, Joint INSAG-AdSec Publication (under publication).
31. INTERNATIONAL ATOMIC ENERGY AGENCY, Code of Conduct on the Safety and Security of Radioactive Sources, IAEA, Vienna (2005).
32. INTERNATIONAL ATOMIC ENERGY AGENCY, Management of the Interface between Nuclear Safety and Security for Research Reactors, IAEA-TECDOC-1801, IAEA, Vienna (2016).

33. INTERNATIONAL ATOMIC ENERGY AGENCY, The Nuclear Safety and Nuclear Security Interface: Approaches and National Experiences, Technical Reports Series No. 1000, IAEA, Vienna (2021).
34. INTERNATIONAL ATOMIC ENERGY AGENCY, Managing the Interface between Safety and Security for Normal Commercial Shipments of Radioactive Material, Technical Reports Series No. 1001, IAEA, Vienna (2021).
35. INTERNATIONAL ATOMIC ENERGY AGENCY, Notification, Authorization and Enforcement of Safety and Security of Radiation Sources, Technical Reports Series No. 1002, IAEA, Vienna (in preparation).
36. INTERNATIONAL ATOMIC ENERGY AGENCY, Regulatory Oversight of the Nuclear Safety and Nuclear Security Interfaces in Nuclear Power Plants, Technical Reports Series No. 1003, IAEA, Vienna (in preparation).
37. WENRA Report on "Interfaces between Nuclear Safety and Nuclear Security" of 10 April 2019.

7. OVERVIEW

A tentative table of contents of the publication is provided here below:

1. **Introduction**, including background, objective, scope and structure
2. **Basic Concept for the Management of the Interface between Nuclear and Radiation Safety and Nuclear Security**, including safety and security fundamentals and objectives, graded approach, defense/protection in depth, safety assessment and associated plans/programs and vulnerability assessment (evaluation of effectiveness) and security plan, scope of safety and security measures, safety culture and nuclear security culture, similarities and differences between nuclear and radiation safety and nuclear security
3. **General Considerations**, including legal and regulatory framework, roles and responsibilities for safety and security, leadership and management for safety and security, operating programmes and procedures, emergency preparedness and response, nuclear material accountancy and control, management and protection of information, training and qualification
4. **Specific Considerations**
   - **4.1. Managing the Interface for Nuclear Installations**
   - **4.2. Managing the Interface for Radioactive Sources and Associated Facilities**
   - **4.3. Managing the Interface for Material Out of Regulatory Control**
   - **4.4. Managing the Interface for Radioactive Waste Management Facilities**
   - **4.5. Managing the Interface during Transport of Nuclear and other Radioactive Material**
5. **References**

8. PRODUCTION SCHEDULE: Provisional schedule for preparation of the document, outlining realistic expected dates for *(fill the column corresponding to your proposed document and delete the other columns)*:

	A*		
STEP 1: Preparing a DPP	DONE		
STEP 2: Approval of DPP by the Coordination Committee	2021.08.05.		
STEP 3: Approval of DPP by the relevant review Committees	2021 Q4 – 2022 Q2		
STEP 4: Approval of DPP by the CSS in consultation with NSGC	2022 Q2		
STEP 5: Preparing the draft	2022 Q3 - 2024 Q2		
STEP 6: Approval of draft by the Coordination Committee	2024 Q2		
STEP 7: Approval by the relevant review Committees for submission to Member States for comments	2024 Q2		
STEP 8: Soliciting comments by Member States	2024 Q4		
STEP 9: Addressing comments by Member States	2025 Q1		
STEP 10: Approval of the revised draft by the Coordination Committee Review in NS-SSCS	2025 Q1		
STEP 11: Approval by the relevant review Committees	2025 Q2		
STEP 12: Endorsement by the CSS in consultation with NSGC	2025 Q2		
STEP 13: Establishment by the Publications Committee and/or Board of Governors (for SF and SR only))	2025 Q4		
STEP 14: Target publication date	2026 Q1		

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- *Column A for Safety Fundamentals, Safety Requirements and Safety Guides.*
- *Column B for Nuclear Security Series publications noting that for Technical Guides a fast track may be proposed and justified for approval by the NSGC at step 3. If approved, the draft will not be subject to the steps 4 to 10 and, be provided at step 11 to the NSGC to take note of it before its publication*
- *Column C for TECDOCs, safety reports and other publications*

9. RESOURCES

Estimated resources involved by the Secretariat (person-weeks) and the Member States (number and type of meetings)

Staff resources

NSNS – 1 TO ten weeks

NSNI – 1 TO ten weeks

NSRW – 1 TO ten weeks

IEC – 1 TO ten weeks

Meetings

5-6 CMs

1 TM

Home Based Assignments (as appropriate)