1. IDENTIFICATION


Working ID: NST053

Proposed Title: Security of Nuclear and Other Radioactive Material in Transport

Proposed Action: New document

Interface Document? No

Review Committee(s) or Group: NSGC

Technical Officer(s): Stig Isaksson

2. BACKGROUND

The Implementing Guide “Security in the Transport of Radioactive Material”, Nuclear Security Series No. 9, was published in 2008. A draft Implementing Guide on “Security of Nuclear Material in Transport” (NST017) has been developed to address the security measures needed for the transport of nuclear material by virtue of its fissile nature, and is expected to be published soon. IAEA experience in assisting Member States in implementing the recommendations and guidance on security of both nuclear and other radioactive material in transport has identified needs for more detailed technical guidance in specific areas.

A Technical Meeting on transport security held in June 2014 recommended that “IAEA should consider developing additional transport security technical guidance to assist Member States in the practical implementation of IAEA Nuclear Security Series (NSS) recommendations”. Such technical guidance was also foreseen in the ‘roadmap’ for the Nuclear Security Series agreed with NSGC at its meeting in June 2014. A consultancy meeting was convened in February 2015 to consider the recommendation of the Technical Meeting, and developed a comprehensive list of topics for inclusion in a Technical Guidance publication.

This DPP is based on input from the Technical Meeting and consultancy meeting and IAEA experience in assisting Member States.

3. JUSTIFICATION FOR THE PRODUCTION OF THE DOCUMENT

This is proposed as a new publication. There is no existing technical guidance covering detailed application of the transport security Implementing Guides NSS 9 and NST017, and therefore, no revision or addendum to an existing publication is practical.

This document will cover some elements of transport security that are common to both nuclear and other radioactive material as well as some elements that are specific to each type of material. On balance, it is considered preferable to have one publication with some sections specific to a particular type of material rather than two publications with significant repetition of common guidance in both. It will provide detailed and practical guidance for specific modes of transport, types of material and specific applications, for example transport of radiography devices.
The intent is to have a single Technical Guidance publication supporting application of the two transport security Implementing Guides NSS 9 and NST017. It will cover guidance that is relevant to security in transport of both nuclear and other radioactive material, such as establishment of legal and regulatory frameworks, commonalities between nuclear and other radioactive material, development, implementation and evaluation of a transport security plan and safety and security interfaces. To address the needs of stakeholders that only have an interest in either nuclear or other radioactive material there will also be separate sections with guidance that is specific to security of the two different types of material. With this the document will be comprehensive and user friendly.

4. OBJECTIVE AND SCOPE
The objective of this document is to provide comprehensive and updated guidance for Member States, including, regulatory bodies, shippers, carriers and receivers, in order to facilitate the practical application of the Implementing Guides NSS 9 and NST017.

The publication will provide detailed technical guidance on specific topics related to transport security for Member States that are in the process of developing security requirements for transport and those Member States that are revising existing security requirements.

The document will be useful to both regulatory bodies and industry stakeholders in Member States with nuclear material or in the process of introducing such material and Member States with radioactive material only.

The scope of the document will be security of nuclear and other radioactive material in transport and it will cover measures to prevent unauthorized removal and sabotage of the material during domestic and international transport. It will also cover measures to respond to a nuclear security event. It will not include response to any nuclear or radiological emergencies that might result from a nuclear security event. It will however cover safety and security interfaces e.g. interfaces with contingency and emergency response plans.

5. PLACE IN THE OVERALL STRUCTURE OF THE RELEVANT SERIES AND INTERFACES WITH EXISTING AND/OR PLANNED PUBLICATIONS
The publication will be Technical Guidance in the Nuclear Security Series. It will facilitate application of the transport related recommendations in the higher level publications Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5) (NSS No. 13) and Nuclear Security Recommendations on Radioactive Material and Associated Facilities” (NSS No. 14). It will provide more detailed information on how to apply the Implementing Guides NSS No.9 and NST017 (currently in the publication process).

The Implementing Guide NSS No.9 is currently undergoing revision and it will be ensured during development that the Technical Guidance will be consistent with changes made to NSS No.9. The revision of NSS No. 9 is expected to be complete before publication of the Technical Guidance.

Although, as Technical Guidance, this publication will not formally be an interface document, to ensure that safety and security interfaces are properly addressed internal consultation will take place with transport safety and emergency preparedness and response specialists. If necessary, RASSC and/or TRANSSC may be consulted informally on interface issues.

6. OVERVIEW
The proposed structure and content of the document is as follows
1. Introduction
2. Overview of nuclear and radioactive material categorization
3. Establishing transport security regulations and requirements
   a. Selection of a regulatory approach
   b. Developing transport security regulations and requirements
   c. Application of IAEA recommendations and guidance into national regulations
4. Commonalities between nuclear and radioactive material transport
   a. Design and implementation of a transport security system
   b. Development, implementation and evaluation of a transport security plan
   c. International transport security interfaces (i.e. road, rail, air and sea)
   d. Safety and Security interfaces
5. Nuclear Material
   a. How to design a transport security system for nuclear material
   b. Comparison of transport security measures by category
      • Category I
      • Category II
      • Category III and below category III
   c. Good practices related to nuclear material transport security
6. Radioactive Material
   a. How to design a transport security system for radioactive material
   b. Comparison of radioactive material security levels and categories
   c. Specific use applications
      • Category 1 Radioactive Material transport
      • Category 2- Radiography
      • Category 2- Well logging
      • Category 2 or 3- HDRs (brachytherapy)
   d. Graded approach
   e. Prudent management practices
   f. Practices for basic security level
   g. Good practices related to radioactive material transport security
7. Transport security terminology
8. References

7. PRODUCTION SCHEDULE: Provisional schedule for preparation of the document, outlining realistic expected dates for

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* 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.

8. RESOURCES

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

Five (5) man weeks for an IAEA technical officer and three one-week consultancy meetings