

## **Document Preparation Profile (DPP) Version 2 dated 14 June 2021**

### **1. IDENTIFICATION**

**Document Category:** Nuclear Security Series: Technical Guidance

**Working ID:** NST066

**Proposed Title:** Preparing Nuclear Security Response Plans for Other Radioactive Material in Use and Storage, and Associated Facilities

**Proposed Action:** New document

**Review Committee(s):** NSGC, EPRReSC

**Technical Officer(s):** Oleg Bukharin (MAFA/NSNS), David Ek (MAFA/NSNS)

### **2. BACKGROUND**

A security response plan<sup>i</sup> for nuclear security events (also referred to in some NSS publications as the *contingency plan*) documents the operator's arrangements with a designated response force for response to an alarm, including provision for sufficient personnel, equipment, and training. It can be prepared as a element of the operator's security plan or as a separate document. It is designed to effectively counter acts of attempted unauthorized removal or sabotage, including threats thereof.

In a nuclear security event, a response could demand the involvement of a large number of local, regional and national state authorities and responders, which requires coordination of the operator's security response plan with other response plans such as the emergency plan and the State's National Response Plan. Security response plans and emergency plans need to be coordinated to ensure effective implementation and integration of the corresponding response measures and arrangements (see NSS14 and GSR Part 7).

The goals of security response planning are to ensure a timely and effective security response at all levels in the event of a malicious act involving or directed at other radioactive material (hereafter referred to as *radioactive material*) in use and storage, and its associated facilities. The appropriate actions need to be taken and decisions made at the right time to adequately respond to the event and resolve the situation with the goal of maintaining the radioactive material under the regulatory control and preventing radiological sabotage. Security response plans also provide for the continued effectiveness of the physical protection system during radiological emergency. They serve to integrate the capabilities of the operator's security personnel, who has the knowledge of the radioactive material and its hazards, the facility layout and operations, and the facility's security systems with the capabilities of the designated response forces to ensure timely resolution of the incident.

The proposed guidance document will provide States with information on security measures specific to the development and exercising of security response plans by the designated security response force organizations and the users/ operators of radioactive material facilities and, as well as by relevant regional and national security response force organizations. It also will assist Member States in

strengthening their national capacities to prepare for and respond to security events that could initiate a radiological emergency.

### **3. JUSTIFICATION FOR THE PRODUCTION OF THE DOCUMENT**

The topic of security response for radioactive materials and facilities is covered in broad terms in Nuclear Security Recommendations on Radioactive Material and Associated Facilities, IAEA Nuclear Security Series No. 14, IAEA, Vienna (2011) and the associated Implementing Guide Security of Radioactive Sources Nuclear Security Services No. 11-G. However, these documents do not provide guidance on the scope, organization and content of security response plans or security response plan testing. They also do not address in a sufficient detail the topics of the interface between the on-site and external response forces or between security response and emergency response.

IAEA NSS 39-T “Developing a Nuclear Security Contingency Plan for Nuclear Facilities” provides a detailed guidance for the development and testing of contingency response plans for nuclear facilities. Due to the significant differences in the nature of nuclear and radioactive material facilities and the differences in the organization of the security response, NSS 39-T is not directly applicable to radioactive material facilities in many cases.

IAEA NSS 37-G “Developing a National Framework for Managing the Response to Nuclear Security” addresses the national framework for response to a nuclear event. It does not; however, address the topic of the development of security response plans at the facility level.

There is a need for a dedicated document that would provide detailed guidance regarding the development, implementation, and exercising of security response plans by the operator, designated response force organizations, and relevant regional and national security response force organizations.

### **4. OBJECTIVE**

The objective of this publication is to provide guidance to the operators and designated response force organizations on the preparation, implementation and exercising of security response plans. Additionally, it could be used by relevant competent authorities to review the nuclear security arrangements.

The target audience for this publication includes the operators, designated response force organizations, nuclear security regulatory authorities and other relevant competent authorities.

### **5. SCOPE**

The proposed document will provide guidance to regulatory bodies, other competent authorities, the operators and designated response forces on preparing, implementing, exercising and reviewing security response plans for nuclear security events involving radioactive material in use and storage and associated facilities. It will not specifically address the framework for or the preparation of the State’s national response plans for nuclear security events. However, it will address the interaction of State response competent authorities with the implementation of these security response plans, including in situations involving radioactive material out of regulatory control, and it will indicate where these plans need to be coordinated with the national response plans for nuclear security events.

Additionally, the proposed Technical Guidance will not address operators’ or States’ emergency response plans but will indicate where these security response plans need to be coordinated with these

emergency response plans to address the topics of unified command and control, joint exercises, and others as indicated in NSS 14 and GSR Part 7.

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

This publication will support the following Nuclear Security Guidance:

- INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Recommendations on Radioactive Material and Associated Facilities, IAEA Nuclear Security Series No. 14, IAEA, Vienna (2011).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Implementing Guide Security of Radioactive Material in Use and Storage and of Associated Facilities Nuclear Security Services No. 11-G (Rev.1), IAEA, Vienna (2009).

This publication will also have interfaces with the following safety and security publications:

- 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).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Recommendations on Nuclear and Other Radioactive Material Out of Regulatory Control, IAEA Nuclear Security Series No. 15, IAEA, Vienna (2011).
- INTERNATIONAL ATOMIC ENERGY AGENCY Preparedness and Response for a Nuclear or Radiological Emergency, IAEA Safety Standards Series No. GSR Part 7, Vienna (2015).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Developing a National Framework for Managing the Response to Nuclear Security Events, IAEA Nuclear Security Series No. 37-G, IAEA, Vienna (2019).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Developing a Nuclear Security Contingency Plan for Nuclear Facilities, IAEA Nuclear Security Series No. 39-T, IAEA, Vienna (2019x).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Security of Radioactive Material in Transport, IAEA Nuclear Security Series No. 9 Rev 1, IAEA, Vienna (2020).
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## **7. OVERVIEW**

A tentative Table of Contents is as follows:

1. INTRODUCTION
  - 1.1 Background
  - 1.2 Objective
  - 1.3 Scope
  - 1.4 Structure

2. PLAN BACKGROUND
  - 2.1 Threat Assessment
  - 2.2 Objectives of the Plan
  - 2.3 Scope of the Plan (Types of Nuclear Security Events)
  - 2.4 Roles and Responsibilities for Security Response
  - 2.5 Definitions used in the Plan
3. GOALS OF SECURITY RESPONSE PLANNING
  - 3.1 Criteria for Initiation and Termination of Response
  - 3.2 Initiating Radioactive Material Security Events and Specific Response Objectives
  - 3.3 Data and Logistical Support
4. ELEMENTS FOR SECURITY RESPONSE PLAN
  - 4.1 Organization Structure of operator and local responder organization
  - 4.2 Physical Layout of Radioactive Material Facility, Target Characterization, and Local Environment issues important to security response
  - 4.3 Physical Protection System
  - 4.4 Interface between Operator and Designated Response Force(s)
    - 4.4.1 Support/Arrangements/MOUs with local response force agencies to include preparation/implementation of tactical deployment plan etc.
    - 4.4.2 Command, Control and communication during a nuclear security event
  - 4.5 Legal Constraints and Policy Assumptions
  - 4.6 Administrative and Logistical Considerations
  - 4.7 Implementing Procedures
5. RESPONSIBILITY AND ACTIONS MATRIX
6. MAINTENANCE OF SECURITY RESPONSE PLAN
  - 6.1 Exercising the Security Response Plan
    - 6.1.1 Goals and Objectives of Exercise
    - 6.1.2 Success Criteria for Exercise
    - 6.1.3 Outcomes and Areas for Improvements (AFIs)

APPENDIX A – INTERFACE OF THE RESPONSE AND EMERGENCY PLANS

APPENDIX B – SAMPLE SECURITY RESPONSE PLAN

## 8. PRODUCTION SCHEDULE

Provisional schedule for preparation of the document, outlining realistic expected dates for each step

	B*
STEP 1: Preparing a DPP	1 March 2021
STEP 2: Internal review of the DPP (Approval by the Coordination Committee)	April 2021
STEP 3: Review of the DPP by the review Committee(s) (Approval by review Committee(s))	June 2021
STEP 4: Review of the DPP by the CSS (approval by CSS) or information of the CSS on the DPP	
STEP 5: Preparing the draft publication	August 2022
STEP 6: First internal review of the draft publication (Approval by the Coordination Committee)	2022
STEP 7: First review of the draft publication by the review Committee(s) (Approval for submission to Member States for comments)	November 2022
STEP 8: Soliciting comments by Member States	January 2023
STEP 9: Addressing comments by Member States	March-July 2023
STEP 10: Second internal review of the draft publication (Approval by the Coordination Committee)	September 2023
STEP 11: Second review of the draft publication by the review Committee(s) (Approval of the draft)	November 2023
STEP 12: (For Safety Standards) Editing of the draft publication in MTCB and endorsement of the draft publication by the CSS (For nuclear security guidance) DDG's decision on whether additional consultation is needed, establishment by the Publications Committee and editing	
STEP 13: Establishment by the Publications Committee and/or Board of Governors (for SF and SR only))	January 2043
STEP 14: Target publication date	2024

## 9. RESOURCES

Estimated resources involved by the Secretariat (10 person-weeks) and the Member States (number and type of meetings):

Estimated 2 Consultants' Meetings. Estimated 2 technical officers.

## ANNEX: GAP ANALYSIS FOR IAEA NUCLEAR SECURITY GUIDANCE ADDRESSING SECURITY RESPONSE PLANS

The topic of security response for radioactive materials and facilities is covered in broad terms in Nuclear Security Recommendations on Radioactive Material and Associated Facilities, IAEA Nuclear Security Series No. 14, IAEA, Vienna (2011) and the associated Implementing Guide Security of Radioactive Material Nuclear Security Series No. 11-G. However, these documents do not provide guidance on the scope, organization and content of security response plans or security response plan testing. They also do not address in a sufficient detail the topics of the interface between the on-site and external response forces or between security response and emergency response.

IAEA NSS 39-T “Developing a Nuclear Security Contingency Plan for Nuclear Facilities” provides a detailed guidance for the development and testing of contingency response plans for nuclear facilities. Due to the significant differences in the nature of nuclear and radioactive material facilities and the differences in the organization of the security response, NSS 39-T is not directly applicable to radioactive material facilities in many important practical cases.

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<sup>i</sup> Security Response Plans address the response to nuclear security events at radioactive material facilities and, in this way, are similar to Contingency plans in use at nuclear material facilities as outlined in NSS13/27/39-T. A site possessing both radioactive material and nuclear material can be expected to prepare a single response plan, which could be called either a Contingency Plan or a Security Response Plan and which would serve to address the security of both the radioactive material and nuclear material.