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Document Preparation Profile (DPP)
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1. IDENTIFICATION

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

Nuclear Security Implementing Guide

Working ID: NST069

Proposed Title: Nuclear Security Systems and Measures for Major Public Events (NSS No. 18) (Revision 1)

Proposed Action: Revision of a publication: Nuclear Security Systems and Measures for Major Public Events, NSS No. 18 (2012)

Review Committee(s) or Group: NSGC, EPRéSC

Technical Officer(s): Elena PALADI, NSNS

2. BACKGROUND

IAEA Nuclear Security Series (NSS) No. 18, Implementing Guide on Nuclear Security Systems and Measures for Major Public Events, published in 2012, provides guidance for designing and implementing nuclear security systems and measures for major public events (MPEs). It specifically covers technical and administrative measures for (i) developing the necessary organizational structure for nuclear security systems and measures for MPEs, (ii) developing nuclear security plans, strategies and concepts of operations and (iii) making arrangements for implementing the developed plans, strategies and concepts of operations.

NSS No. 18 was based on the practical experience gained when establishing nuclear security systems and measures for MPEs, such as the 2004 and the 2008 Summer Olympic Games in Athens, Greece and Beijing, China; the 2006 and 2010 FIFA Football World Cups in Germany and in South Africa; and the 2007 and 2011 Pan-American Games in Rio de Janeiro, Brazil and Guadalajara, Mexico.

The proposed Implementing Guide will be a revision of NSS No.18.

3. JUSTIFICATION FOR THE PRODUCTION OF THE PUBLICATION

Since its publication in 2012, substantial feedback has been received from Member States that

have hosted MPEs, from IAEA expert missions and from national, regional and international workshops. This feedback has been analyzed by the Secretariat, and the need to update NSS No. 18, based on this feedback, has been recognized.

In addition, participants in the recent ‘International Seminar on Nuclear Security Systems and Measures for Major Public Events – 15 Years of Experience: Challenges and Good Practices’ held in Chengdu, China, in October 2019, recommended that a revision of NSS No. 18 be carried out in order to incorporate the feedback from Member States’ MPE experiences. Seminar participants highlighted the need to incorporate nuclear security methodologies and concepts which have been developed for MPEs, but which are not currently reflected in the existing publication.

Specific areas to be addressed by the revision, in response to Member State feedback, include providing additional information on the relationship between national and event-specific threat assessments, MPE categorization based on the assessed level of threat, the development of a phased concept of operations, which extends across pre-event preventive measures and operational deployments during the MPE itself, the need to integrate nuclear security measures with the general security measures and respective emergency response actions during the specific event planning process, while taking into account existing security plans and respective emergency response plans, and the need for effective post-event analysis, in order to assist States to identify lessons to inform future event planning. In addition this publication will reflect the experiences of International Organizations and the competent authorities of Member States in the integration of special measures related to pandemic situations (for e.g.. COVID 19) when implementing nuclear security measures at MPEs.

As part of its input to the most recent revision of the Roadmap for the Nuclear Security Series, the Nuclear Security Guidance Committee (NSGC) recommended that NSS No. 18 be considered for revision.¹

4. OBJECTIVE

The objective of the publication is to provide guidance to States hosting MPEs on nuclear security systems and measures that may need to be established or enforced to enhance the effectiveness and efficiency of the overall security for the event. The target audience for the

¹ Chair’s Report of the Thirteenth Meeting of the NSGC (June 2018), pages 8-10.

revised publication will be national policy makers and decision makers, national and local competent authorities with nuclear security responsibilities, and relevant support organizations; as well as event organizers, law enforcement and national security organizations, other entities and experts involved in the design and implementation of nuclear security systems and measures for MPEs.

5. SCOPE

This Implementing Guide will cover technical and administrative measures for: (a) multi-agency coordination at any stage; (b) developing event specific plans, strategies and concept of operations taking into account the assessed level of threat and the existing security plans and respective emergency response plans; and (c) event specific arrangements for implementing the developed plans, strategies and concept of operations.

The revised publication will not provide comprehensive technical information such as technical specifications of instruments or detailed information on nuclear security systems and measures to be applied by the responsible organizations.

The response to a nuclear or radiological emergency initiated by criminal and intentional unauthorized acts involving nuclear or other radioactive material out of regulatory control (MORC) during an MPE is outside the scope of this publication. However, this publication is intended to provide for proper coordination of the event specific plans, strategies, and concept of operations with the respective emergency response plans so that the risk of harm to people and the environment is mitigated.

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

The proposed Implementing Guide will be a revision of the existing NSS No 18. It is expected to make reference to at least the following IAEA publications (the list is not intended to be final or exhaustive):

- 1) INTERNATIONAL ATOMIC ENERGY AGENCY, Objective and Essential Elements of a State's Nuclear Security Regime, IAEA Nuclear Security Series No. 20, IAEA, Vienna (2013).
- 2) 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).
- 3) INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Recommendations on Radioactive Material and Associated Facilities, IAEA Nuclear Security Series No. 14, IAEA, Vienna (2011).
 - 4) 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).
 - 5) 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).
 - 6) INTERNATIONAL ATOMIC ENERGY AGENCY, Planning and Organizing Nuclear Security Systems and Measures for Nuclear and Other Radioactive Material out of Regulatory Control, IAEA Nuclear Security Series No. 34-T, IAEA, Vienna (2019).
 - 7) INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CRIMINAL POLICE ORGANIZATION–INTERPOL, Risk Informed Approach for Nuclear Security Measures for Nuclear and Other Radioactive Material out of Regulatory Control, IAEA Nuclear Security Series No. 24-G, IAEA, Vienna (2015).
 - 8) INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Security Systems and Measures for the Detection of Nuclear and Other Radioactive Material out of Regulatory Control, IAEA Nuclear Security Series No. 21, IAEA, Vienna (2013).
 - 9) INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL CRIMINAL POLICE ORGANIZATION–INTERPOL, UNITED NATIONS INTERREGIONAL CRIME AND JUSTICE RESEARCH INSTITUTE, Radiological Crime Scene Management, IAEA Nuclear Security Series No. 22-G, IAEA, Vienna (2014).

- 10) INTERNATIONAL ATOMIC ENERGY AGENCY, Preventive Measures for Nuclear and Other Radioactive Material out of Regulatory Control, IAEA Nuclear Security Series No. 36-G, IAEA, Vienna (2019).
- 11) INTERNATIONAL ATOMIC ENERGY AGENCY, Technical and Functional Specifications for Border Monitoring Equipment, IAEA Nuclear Security Series No.1 (NST 059), IAEA, Vienna (2006)..
- 12) 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).
- 13) INTERNATIONAL ATOMIC ENERGY AGENCY, Method for Developing Arrangements for Response to a Nuclear or Radiological Emergency, EPR-METHOD 2003, IAEA, Vienna (2003).
- 14) INTERNATIONAL ATOMIC ENERGY AGENCY, IAEA Response and Assistance Network, EPR-RANET (2018), IAEA, Vienna (2018).
- 15) INTERNATIONAL ATOMIC ENERGY AGENCY, INTERNATIONAL ASSOCIATION OF FIRE AND RESCUE SERVICES, PAN AMERICAN HEALTH ORGANIZATION, WORLD HEALTH ORGANIZATION, Manual for First Responders to a Radiological Emergency, EPR-First Responders 2006, IAEA, Vienna (2006).

7. OVERVIEW

A new tentative table of contents proposed for the revision of NSS No. 18 is as follows:

1. Introduction
2. Preliminary nuclear security considerations for MPEs
3. Nuclear Security Preventive Measures for MPEs
4. Nuclear Security Preparedness Considerations and Sustainability for MPEs
5. Nuclear Security Concept of Operations (CONOPS) for MPEs
6. Post Event Analysis for MPEs

Annexes, as required

The **Introduction** will contain the Background, Objective, Scope, and Structure of the publication.

A new section title for Section 2, **Preliminary Nuclear Security Considerations for MPEs**, is proposed to replace the previous one “Preliminary Arrangements” in order to better reflect the content of the new section. The new section will consider a number of important strategic factors in establishing nuclear security measures for MPEs, such as multi-agency coordination, development of an MPE -specific threat and risk assessment and MPE specific plans, strategies and concept of operations, MPE categorization in accordance with the assessed threat and risk, emphasis on integrating nuclear security measures into the general security plan and respective emergency response plans and the need to coordinate nuclear security measures and respective emergency response actions under unified command and control.

The **Nuclear Security Preventive Measures for MPEs** section will outline the tactical measures to prevent criminal or intentional unauthorized acts involving MORC before and during the MPE, as appropriate, such as: a) reinforcing nuclear security systems and measures related to nuclear and other radioactive materials, associated facilities and associated activities within the State; b) enhancing security measures on the movement of nuclear and other radioactive material within the State; c) protecting nuclear security information (including computer security); d) ensuring trustworthiness of personnel; e) accrediting nuclear security personnel with MPE access; and f) prioritizing venues and other strategic locations in accordance with the nuclear security threat and risk assessment.

The **Nuclear Security Preparedness Considerations and Sustainability for MPEs** section will cover the specification, deployment, testing and maintenance of radiation detection instruments as well as allocation of human resources, training and exercising, and the role of international assistance and cooperation in preparing nuclear security measures for MPEs.

The **Nuclear Security Concept of Operations (CONOPS) for MPEs** section will cover the process for developing an operational nuclear security concept of operations (CONOPS) for the MPE, both pre-event and during the event. This CONOPS will be based on the categorization of the MPE (which in itself is dependent on the threat and risk assessment), type of MPE (sporting event, summit, cultural event etc.) and will describe the roles and responsibilities of the nuclear security agencies involved in the event and their functions in relation to the assessment of instrument alarms and information alerts, interdiction of criminal acts involving MORC and, investigation of such acts. This CONOPS will not refer to operations related to emergency response actions taken in response to a nuclear or radiological emergency triggered by criminal or other unauthorized intentional acts involving MORC that may have impacts on an MPE, but will indicate where such operations might need to take place, highlighting the importance for proper coordination at national level, in line with respective emergency response plans.

The **Post event analysis for MPEs** section will outline the process for capturing the lessons learned from the implementation of nuclear security systems and measures for the MPE, producing a record of such lessons learned and incorporating them into the planning process for future events.

Annexes- In accordance with the existing publication, updated Annexes will be included, to cover:

Annex I Generic Action Plan for MPEs

Annex II Generic Unified Command and Control Structure

Annex III Timeline for implementation of Venue Lockdown

Annex IV Generic Concept of Operations for Detection by Instruments

Annex V Types of Radiation Detection Instruments and their Applications

Annex VI Generic Standard Operating Procedures for MPEs

Further annexes will be added to the publication as required, for example, to provide specific examples of good practice contributed by States who have successfully implemented nuclear security systems and measures at MPEs, or, for example, provide details of specific types of equipment which have been found to be particularly useful when implementing nuclear security systems and measures at MPEs.

Glossary- Terms use in the publication will be defined and italicized in the text

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

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STEP 1: Preparing a DPP	DONE
STEP 2: Internal review of the DPP (Approval by the Coordination Committee)	February 2022
STEP 3: Review of the DPP by the review Committee(s) (Approval by review Committee(s))	June 2022
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 – February 2024
STEP 6: First internal review of the draft publication (Approval by the Coordination Committee)	February 2024
STEP 7: First review of the draft publication by the review Committee(s) (Approval for submission to Member States for comments)	June 2024
STEP 8: Soliciting comments by Member States	July 2024 – October 2024
STEP 9: Addressing comments by Member States	October 2024 – January 2025
STEP 10: Second internal review of the draft publication (Approval by the Coordination Committee)	January 2025
STEP 11: Second review of the draft publication by the review Committee(s) (Approval of the draft)	June 2025
STEP 12: (For Safety Standards) Editing of the draft publication in MTCD 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	July 2025
STEP 13: Approval by the Board of Governors (for SF and SR only)	August 2025
STEP 14: Target publication date	2026

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- Column A for Safety Fundamentals, Safety Requirements and Safety Guides.
- Column B for Nuclear Security Series publications

- *Column C for TECDOCs, safety reports and other publications*

9. RESOURCES

The resources for the preparation of this publication will be based on nuclear security extra-budgetary funding. There will be five Consultancy Meetings to develop the material and act on comments received during the publication development process.