13th Meeting of NSGC
11–14 June 2018

Joint Meeting with EPReSC

Agenda Item 6.2

NST058 Nuclear security threat assessment and threat statements (Revision of NSS No. 10) (Implementing Guide)

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Preliminaries

• Nuclear Security Guidance Committee
  – in June 2016
  – approved the DPP on the revision of NSS-10 “Development and, Use and Maintenance of the Design Basis Threat”
Objectives of the review - 1

Extending threat assessment to cover:

- Computer related threats
- Local threats
- Blended attacks - combination of physical and cyber, as well as insider and outsider threats
- Insider threats
- External threats should be further elaborated (terrorist, criminals, protestors, extremists)
Objectives of the review - 2

Providing guidance on:

• Alternative approach - ATS
• How to combine physical and cyber, as well as insider and outsider threats
• How to use DBT to develop regulatory requirements (performance based approach, prescriptive approach)
• How to use DBT to vulnerability assessment
• How to use DBT to performance evaluation
Objectives of the review - 3

Defining application specific threat statements for:

• Different materials (nuclear and other radioactive)
• Different categories of materials
• Different facilities and activities
Process of review and revision

• CM#1
  – September 2016 (exchange of views)

• CM#2
  – June 2017 (updated methodology, preparation of text)

• CM#3
  – September 2017 (detailed review, new text)

• TM
  – February 19-23, 2018 (45 experts from 32 NPP and RR countries)

*TM proposed to submit the draft revised NSS-10 to the NSGC in order to initiate the 120-days review with the involvement of all Member States*
Step 1. Definition of roles and responsibilities

Step 2. Performance of the nuclear security threat assessment

Nuclear Security Threat Assessment Documentation

Step 3. Development of design basis threats and representative threat statements

Design basis threats and Representative threat statements

Step 4. Use of the design basis threats and representative threat statements in the regulatory framework

Regulatory requirements Nuclear security system designs

Step 5. Maintenance of nuclear security threat assessment documentation, representative threat statements and design basis threats
Threat Statements

- **Representative threat statements** are typically used to develop prescriptive regulatory requirements for a certain subset of materials and/or facilities to be protected, while

- **Design basis threats** are typically defined for specific facilities or activities.
Use of DBTs and RTSs

• Prescriptive regulatory approach
• Performance based regulatory approach
• Combined regulatory approach
Maintenance of NSTAD, DBTs and RTSs

- Regular review and revision
- Responding to new and emerging threats
Emergency Preparedness considerations

• The State shall ensure that the hazard assessment, providing basis for a graded approach in preparedness and response for a nuclear or radiological emergency, includes consideration of the results of nuclear security threat assessment [11].
Emergency Preparedness considerations

• The responsibilities of Competent authorities should include

• (h) Considering the nuclear security threat assessment when performing hazard assessment [12].
7.4. Relevant emergency response organizations including the regulatory body and the operator should use the results of the nuclear security threat assessment in the hazard assessment to allow for adequate emergency arrangements to be established for preparedness and response for a nuclear or radiological emergency emergency triggered by a nuclear security event and for a coordinated and integrated response.
Thank you!