9th Meeting of the Emergency Preparedness and Response Standards Committee (EPReSC)

3 to 5 December 2019
(Agenda Item Nr 5.2)

DPP EPR-Dose Assessment:
Dose Assessment during a Nuclear or Radiological emergency

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New EPR Series document as technical guidance addressing dose assessment during the response in a comprehensive manner

Reason for development:

- To account for the requirements supported by GSR Part 7
  - Optimization of protection strategy in the early and transition phase of emergency
  - Protection of emergency workers and helpers
  - Provision of the medical attention, counselling and public reassurance

- To systematize several EPR Series documents have been developed
  - Generic Procedures for Medical Response during a Nuclear or Radiological Emergency, EPR-Medical (2005)
Objective and Scope

- The new document is initiated to provide on all techniques that might be used dose assessment during a nuclear or radiological emergency:
  - For use of prospective dose assessment for adjusting and optimization of protection strategy from early response phase onward
  - For use of retrospective dose reconstruction to estimate the radiation dose received by the public, emergency workers and helpers in order to require appropriate medical attention
  - For provide the procedures on continuous dose measurement based on the personal dosimetry

- The new document is not initiated:
  - To provide technical guidance on dose assessment (i.e. hazard assessment) used at the preparedness stage
  - To provide technical methodologies not only on activity measurement using bioassay but also on physical and biological dosimetry
Objective and Scope (Cont.)

- Target audience are all persons who have roles and responsibilities in emergency response, such as radiological assessors, medical personnel, public information officers and decision makers
- Applicable to dose assessment regarding all type of facilities and activities for all Emergency Preparedness Category
Interfaces with Existing and/or Planned Publications

- Manual for First Responders to a Radiological Emergency, EPR-FIRST RESPONDERS, (under revision).
- Generic Procedures for Medical Response during a Nuclear or Radiological Emergency, EPR-Medical 2019, IAEA, Vienna (in publication process)
- Guidance for Medical Physicists in Support of Nuclear or Radiological Emergencies, EPR-Medical Physicists 2019, IAEA, Vienna (in publication process)
- Procedures for Monitoring in a Nuclear or Radiological Emergency, EPR-MONITORING, (under development as a revision of TECDOC-1092).
- Operational Intervention Levels for Reactor Emergencies, EPR-NPP-OILS, IAEA, Vienna (2017)
- Operational Intervention Levels for Radiological Emergencies, EPR-RAD-OIL, (under development).
1. INTRODUCTION
   1.1. Background
   1.2. Objective
   1.3. Scope
   1.4. Structure

2. OVERVIEW
   2.1. General concept of dose assessment and dosimetric quantities coming out from assessment
   2.2. Use of dose assessment from prospective and retrospective perspective
   2.3. Roles and responsibilities the relevant organizations
   2.4. Consideration of uncertainties for the output
   2.5. Communication with the public on the output

3. PROCEDURES
   3.1. Prospective dose assessment
      3.1.1. Dose assessment based on source term estimation
      3.1.2. Dose assessment based on environmental monitoring data
   3.2. Retrospective dose assessment
      3.2.1. Dose assessment by radiological assessor at the scene
      3.2.2. Dose assessment by medical personnel at the hospital
   3.3. Continuous dose measurement (personal dosimetry)
## Planned Schedule

<table>
<thead>
<tr>
<th>Step</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>STEP 1: Preparing a DPP</td>
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<tr>
<td>STEP 2: Approval of DPP by the Coordination Committee</td>
<td>Q4 2019</td>
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<td>STEP 3: Approval of DPP by the relevant review Committees</td>
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<td>STEP 4: Approval of DPP by the CSS</td>
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<td>STEP 5: Preparing the draft</td>
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<td>Indicate as to whether a TM is expected to be organized for the preparation of the draft</td>
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<td>STEP 6: Approval of draft by the Coordination Committee</td>
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<tr>
<td>STEP 7: Approval by the relevant review Committees for submission to Member States for comments</td>
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<td>STEP 8: Soliciting comments by Member States</td>
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<td>STEP 9: Addressing comments by Member States</td>
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<td>STEP 10: Approval of the revised draft by the Coordination Committee</td>
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<td>Review in NS-SSCS</td>
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<td>STEP 11: Approval by the relevant review Committees</td>
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<td>STEP 12: Endorsement by the CSS</td>
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<td>STEP 13: Establishment by the Publications Committee and/or Board of Governors (for SF and SR only)</td>
<td>Q1 2021</td>
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<td>STEP 14: Target publication date</td>
<td>Q2 2021</td>
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This presentation is to note the current status of the development. No action is requested at this time.
Thank you!