Joint EPRestsC8-RASSC46 Session

25 June 2019
Agenda Item ER3.1

Draft Safety Guide DS469: Preparedness and Response for an Emergency During the Transport of Radioactive Material

Step 11: Approval for Submission to CSS

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Background

- Draft Safety Guide *Preparedness and Response for an Emergency during the Transport of Radioactive Material*
- Revision of TS-G-1.2, published 2002
- Step 3: DPP approved by EPReSC, TRANSSC, RASSC, NSGC: June 2016
- Step 4: DPP approved by CSS: November 2016
- Step 7: First review and approval by EPReSC, TRANSSC, RASSC, NSGC: June 2018
- On schedule per the DPP and at Step 11
Progress to date

- 6 Consultancy Meetings held
  - June 2016
  - November 2016
  - February 2017
  - June 2017
  - September 2017
  - January 2018
- Technical Meeting held 16-20 October 2017
  - 62 representatives
    - 43 Member States, 1 International Organization, 1 Nongovernmental Organization
- Events jointly implemented by IEC and Transport Safety Unit
Background – Guiding Principles

• Use TS-G-1.2 to the greatest extent practicable
• Easy to understand, user friendly publication
• Focus on most probable emergencies while acknowledging and allowing for more severe emergencies
• Elaborate linkages between concepts whenever possible
• Provide more specific guidance on roles and responsibilities of consignors and carriers
• Provide examples, templates, and references whenever possible
  – 4 appendices and 2 annexes are > 50% of the length of the document
Scope

• Preparedness and response for a nuclear or radiological emergency during transport
• From the forwarding of the package to delivery at the consignee (including storage in transit)
• Excludes:
  – Events without any safety significance (e.g. a disabled conveyance in a stable condition, such as a broken down motor vehicle or a vehicle involved in a minor traffic accident)
  – Movement of radioactive material within the site boundaries of authorized facilities
Proposed Structure

- Section 1: Introduction
- Section 2: National Arrangements and Framework
- Section 3: Preparedness and Response Elements
- Section 4: Considerations for Modes of Transport
- Section 5: Interface with Nuclear Security
- Appendix I: Features of the Transport Regulations Relevant to EPR
- Appendix II: Considerations for Developing a National Capability
- Appendix III: Types of Emergencies during Transport
- Appendix IV: Postulated Events and Potential Consequences
- References
- Annex I: Example Event Notification Form
- Annex II: Template for the Carrier and Consignor Emergency Response Plan
Step 8: 120 day MS Comment

- 360 comments submitted
Step 8: 120 MS Comment

Resolution

- Accepted: 63%
- Rejected: 37%

IAEA
Step 11: 2\textsuperscript{nd} Committee Review

- 119 comments submitted
- Many joint comments between committees
Step 11: 2nd Committee Review

Resolution

Accepted 82%
Rejected 18%
Theme 1: Plausibility / Probability of Emergencies

- Wide distribution of the draft at Step 8, including to consignors and carriers
- Some comments received regarding the need for DS469 and the scenarios in Appendix III & IV
- Resolution:
  - Long-standing acknowledgement of possibility of emergencies (including in TS-G-1.2)
  - Does not diminish the effectiveness of the Transport Safety Regulations
  - Nonetheless, edited wording in Introduction and Appendices to reflect low probability of emergencies during transport and emphasize hypothetical nature of appendices
Theme 2: Appendices / Annexes

- Many comments on the structure of Appendices and Annexes
  - Step 8 comments to shift all appendices to annexes
  - Step 8 comments to shift all annexes to appendices
- Step 11 comments on Appendix I
- Resolution:
  - Annex II removed due to minor inconsistencies with SSR-6 (Rev. 1) published late 2018
  - Remainder of Appendices and Annexes left unchanged
  - Appendix I: Features of the Transport Regulations Relevant to Emergency Response
    - Appendix vs. Annex vs. Removal
    - Not possible to become Annex due to technical editorial issues
    - Precedent for summarizing Safety Requirements exists (SSG-16, SSG-22)
    - Content very useful for EPR community, reflects comments to maintain content from TS-G-1.2 as much as possible
Specific comments: RASSC

• No comments from RASSC
<table>
<thead>
<tr>
<th>Reference</th>
<th>Page/Subclause</th>
<th>Comment/Issue</th>
<th>Specific Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAK-01</td>
<td>3. General</td>
<td>In some of the paras e.g.: 1.1 a human error, a mechanical or other failure, or a nuclear security event [2]. 2.5 and that emergency arrangements are established in line with the graded approach [2]. 2.22 before being published, to help provide correct and consistent information [9].</td>
<td>For such specific information, the mentioning of relevant parts of the referred document will facilitate the reader for clear understanding.</td>
</tr>
<tr>
<td>IRN-04</td>
<td>6. Page 5/Subclause 2.7 Second line</td>
<td>“…emergency preparedness and response, and transport safety, and transport security,….”</td>
<td>Editorial</td>
</tr>
<tr>
<td>AUSTRL-06</td>
<td>15. Para 2.25</td>
<td>Add a comma to read as “contamination measurements, and emergency response”</td>
<td>Consistency with the use of comments; adds to readability.</td>
</tr>
<tr>
<td>WNTI/3.</td>
<td>21. 2.42</td>
<td>In accidents during transport, dose rate measurements in excess of the OILs should not be used as a justification to declare an emergency class’ and trigger emergency response actions. 7. An emergency class is “a set of conditions that warrant a similar immediate emergency response.”</td>
<td>There is only one emergency class (“other nuclear or radiological emergency”) for Category IV (transport) and to declare an emergency is enough to trigger emergency response actions. Even though it is the only emergency class for EPC IV, it is still an emergency class.</td>
</tr>
<tr>
<td>AUSTRL-08</td>
<td>33. Para 2.57</td>
<td>Add “risk identified in the” to “…commensurate with the risk identified in the hazard assessment”</td>
<td>Plans and procedures should be commensurate with risk – this is identified in the hazard assessment. Risk is generally a separate concept. In GSR Part 7 Requirement 4, “Risk” is used only in the context of reducing stochastic effects.</td>
</tr>
</tbody>
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The general style, although not a rule, is to provide paragraph references within the same document but only reference Sections or publication names of other publications.
### Specific comments: EPR\textsc{e}SC

| JAP-21 | 5. | 4.27 | Retrieving sunken packages or vessels will require specialized teams capable of maritime salvage operations. In some cases, retrieval of the package may not be justified from a radiation protection perspective. This decision will be based on the protection strategy put in place by the national government responsible for the emergency site area, or the flag State of the vessel in case of an emergency in international waters. Assessment studies showed that radiological impact is very small at the submergence of packages in deep water. Packaged sunk in shallow waters should be recovered unless it is not necessary. | Accepting the comment from IAEA as not too strong expression is proposed, the intent in the reference is reflected in a milder manner. | X | The reference publication [19] does not provide such strong conclusions, therefore it is better to refer to the general concept of justification, in which the action should be proven to do more good than harm. |
| WNTI/14. | 3. | 5.5 | Requirement 4 of GSR Part 7 [2] requires States to ensure that the hazard assessment takes into consideration the results of nuclear security threat assessments. The strongest nuclear security measures are should be required for protecting radioactive material which may lead to significant radiological consequences and security threats in case of malicious acts during transport. | “strongest nuclear security measure” are not required for all transport of radioactive materials. “Unauthorized removal” does not lead to significant radiological consequences. | X | The sentence states that the strongest measures are required for materials which may lead to significant consequences, which is correct. Similarly, the sentence states that unauthorized removal” may lead to an emergency, which is correct. |
| JAP-31 | 2. Appendix I | Delete this Appendix. It is not appropriate to synthesize other IAEA document, since it may cause errors and misunderstanding. | This comment was rejected from a different reason. Other IAEA document should not be synopsized, but only to be referred to the latest edition. It will cause errors and misunderstanding, and the Transport Regulations are revised often. | X | See FRA-03 |
| AUSTRL-13 | 7. | App I.20 & I.21 | Suggest that a summary table of the properties of these packages is included and referred to. | Easier reference for package types. | X | These are descriptive texts, the Transport Regulations contain the definitive tables and definitions. |
Action requested

• You are kindly requested to approve the draft for submission to CSS
• The document will undergo technical editing and a silent approval process prior to submission to the CSS
Thank you!