Nuclear Safety Standards Committee

37th Meeting

1 – 4 July 2014

Agenda Item 3.1 DPP DS484
Safety Requirements: Site Evaluation for Nuclear Installations
(Revision of NS-R-3)

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ISSC/NSNI
Safety Principle 8: Prevention of Accidents

where defence in depth is provided by:

- Effective management system
- Adequate site selection & characterization
- Comprehensive operational procedures

☐ NS-R-3 is devoted to requirements that a site shall meet to support this principle
NS-R-3 : Objectives

Provides requirements for the:

- confirmation of site suitability
- identification and characterization of site hazards
- determine site characteristics, limitations and design data
- Analysis of the regional population characteristics, emergency planning capabilities and the impact of the nuclear installation on the region
- monitoring and re-evaluation of hazards
- implementation of management system during site evaluation
Background - Status of Safety Standards on Site Evaluation

**REQUIREMENT** What **shall** be done

**SAFETY GUIDES** How it **should** be done
Basis for Revision of NS-R-3

- Promote continual safety improvements and updating with new developments, new advances and lessons learned from:
  - Site selection and characterization for nuclear installations
  - Design, construction, and operation of nuclear installations
  - Sever External events that affect nuclear installations safety
  - Member States best practices & experience in its application

- Incorporate current revisions to the NS-R-3 under the DS462 Amendment in response to the Fukushima accident. This will also includes addressing comments outside the DS462 scope.

- Input and feedback received from Member States during the TM on revision of the NS-R-3, in December, 2012 in Vienna.
Key Objectives of Revision

The main objectives for the revision is to provide numbered bold ‘overarching’ requirements that are:

- at a level commensurate with “regulations”
- specific without being prescriptive
- focused on conveying the essential “safety concepts” where regulatory control is needed
- in a logical format which indicates its use in the safety process
- written in a format that eliminate redundancy
1. Introduction
2. General requirements
3. Specific requirements for evaluation of external events
4. Site characteristics and the potential effects of the nuclear installation in the region
5. Monitoring hazards
6. Quality assurance

References
Glossary
Contributors to Drafting and Review
Bodies for the endorsement of Safety Standards

To be added

Copy Right Notice
Forward
Note by the Secretariat
The IAEA Safety Standards
Content

To be updated

1. Introduction
2. General requirements
3. Specific requirements for evaluation of external events
4. Site characteristics and the potential effects of the nuclear installation in the region
5. Monitoring hazards
6. Management System

References
Definitions (not in the IAEA Safety Glossary)
Contributors to Drafting and Review
Bodies for the endorsement of Safety Standards
## DS484 – Schedule

<table>
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<th>Task</th>
<th>Completion Date</th>
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<tr>
<td>Approval of DPP by Review Committees</td>
<td>Q2-2014</td>
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<tr>
<td>Approval of draft by CSS</td>
<td>Q4-2014</td>
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<tr>
<td>Prepare draft</td>
<td>Q2-2015</td>
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<td>Approval of draft by Coordination Committee and Review Committees</td>
<td>Q2-2015</td>
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<td>Solicit and address Member States comments</td>
<td>Q3-2015</td>
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<td>Approval by Coordination Committee and Review Committees</td>
<td>Q2-2016</td>
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<td>Endorsement by CSS Committee</td>
<td>Q4-2016</td>
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<td>Establishment by the Board of Governors and Target Publication</td>
<td>2017</td>
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### DS484 - SSCs comments

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<th>Committee Comments</th>
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* Note: Combined with NUSSC

33 comments in total:
26 accepted, 4 rejected and 3 clarification
## DS484 - SSCs comments by Types

<table>
<thead>
<tr>
<th>Member</th>
<th>Accepted</th>
<th>Rejected</th>
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DPP DS484 - Requested Action

- Resolutions table and revised DPP (Version 3) were posted on the Committees Website before the SSCs first meeting.

- DPP DS484 was approved by TRANSSC, RASSC and WASSC

Committee approval of DPP DS484 to send to CSS

THANK YOU
Back Up Slides
Comment (1) related to topics not covered by NS-R-3

Such as requesting adding a section to address corrective actions for existing facilities to respond to hazards that were not accounted for in the early siting and design of nuclear installation

Proposed resolution: NS-R-3 provides requirements for site evaluation throughout the life time of nuclear installations as an input for safety evaluation. Corrective actions to be taken for existing facilities based on new hazards information are not siting issues. They are facilities’ and design safety related issues.
Comment (2) related to clarification on the need to include a section for management system section in the NS-R-3

Proposed resolution: The management system section in the NS-R-3 is intended to stress the need to implement a management system based on GS-R-3 early in the siting activities and provide specific requirements directly related to site evaluation.
Comment (3) related to the technical interpretation

Such as changing a sub-title in the Table of Content:
3.1 Earthquakes and surface-faulting (surface and seismogenic)

Proposed resolution: Earthquakes can be produced by all types of faults (surface and Seismogenic), and the intention of this sub-section is not to link surface faults to earthquakes but to give surface faulting special attention due to its safety implications when it create permanent ground deformation at the site
Comment (4) related to terminology used in the text of the DPP

**Such as:** Changing “TEPCO’s Fukushima Daiichi accident” to “Japan Fukushima Daiichi accident.”

**Proposed resolution:** Earthquakes TEPCO is the utility/owner of the Daiichi NPP and the use of TEPCO’s Fukushima Daiichi accident was recommended by the Japanese counter part