40th Meeting of the Radiation Safety Standards Committee
41st Meeting of the Waste Safety Standards Committee

21 – 22 June 2016

Agenda Item RW4.1

DPP DS497 Revision of eight closely interrelated Safety Guides: NS-G-2.2 to 2.8 and NS-G-2.14

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NPP Operational Safety: Need for Review of IAEA SS on NPP Operational Safety

- IAEA procedures recommend Safety Standards are reviewed every 10 years; most IAEA guidance on NPP Operational Safety dates from between 2000 and 2002

- IAEA Safety Requirements were revised in 2015-16

- Significant experience is now available regarding operational safety improvements in Member States, (for example from OSART missions)

- To account for the Long Term Structure of the IAEA Safety Standards

- To consider lessons from the Fukushima-Daiichi accident
Objectives of the DPP

Revise the following Safety Guides:

- **NS-G-2.2** Operating Limits & Conditions
- **NS-G-2.3** Modifications
- **NS-G-2.4** Operating Organization
- **NS-G-2.5** Core Management & Fuel Handling
- **NS-G-2.6** Maintenance, Surveillance & In Service Inspection
- **NS-G-2.7** Radiation Protection & Waste Management
- **NS-G-2.8** Recruitment, Qualification & Training
- **NS-G-2.14** Conduct of Operations

Revise (and extend the scope of)

- **NS-G-2.1** Fire Safety (to cover other external and internal hazards)

Create new Safety Guide on Monitoring and Review of Safety Performance of NPPs
Changes since the Fukushima-Daiichi accident

Following the Fukushima-Daiichi accident, in the area of NPP Operational Safety, IAEA has revised:

- All IAEA Safety Requirements, including Safety of Nuclear Power Plants: Commissioning and Operation SSR – 2/2, 2016
- Safety Guide on Severe Accident Management (DS483)

Fukushima Report and Vienna Safety Declaration were issued.
Overview of the Documents:
Proposal for a revision process

• How to approach revising these 8 closely related guides was considered at an IAEA Technical Meeting in November 2015

• The recommended approach for revision of these guides was presented for information at CSS meeting in April 2016

• The DPP was prepared in April 2016 and submitted for SSC comments
Based on the results from the IAEA TM and using the new IAEA Software tool for revision of the IAEA safety Standards IAEA proposes to revise the IAEA Safety Standards on NPP Operational Safety in two steps:

Step 1:
  a) Revise all guides by amendment (DPP 497)
  b) Develop a new DPP for Guide 2.1 to cover all external and internal hazards
  c) Develop a DPP for a new Guide on Monitoring and Review of Safety Performance in NPP Operation
Status of DPP DS497 Revision of eight closely interrelated Safety Guides: NS-G-2.2 to 2.8 and NS-G-2.14

Step 2 (In consultation with SS Committees and Commission):

a) Revise all NPP Operational Safety Guides and consider possibility to issue one guide on NPP Operational safety with different Volumes. This will keep the set of SS on Operational Safety in a single logical structure, reduce their number and align with the revised SSR-2/2 (In line with IAEA Long term structure for Standards)
b) Recognise the links with the new GSR Part 2 and its safety guides
c) Rearrange some of the standards content to better fit typical NPP organizational structure
NUSSC/WASSC/RASSC/TRANSSC/EPResco/NSGC
and Member Comments: Summary

- 46 comments received from all Safety Standards and Security Guidance Committees
- Comments received from Canada, ENNIS, Germany, Ireland, Japan, Sweden, USA, South Korea, France
- Most comments concern proposals for modifications in each of the individuals guides, with a few editorial comments

36 comments accepted in full
10 comments accepted with some changes
Major comments that were accepted:

- Ensure consistency with SSR-5; GSR Part 6, and GSG-1 on issues related to Radiation Protection and Waste Management.

- Specify better the new topics to be included in the guides.

- Consider safety considerations relevant for multi-unit nuclear power plant site.

- Consider cumulative effects of deficiencies on non-safety related systems, to ensure they do not impact functions important to safety.
Major comments that were accepted with modification:

- Optimize the development process to reduce the burdens on MSs and Committees
- Consider Quality Assurance as a separate chapter in the new Guide

- A benefit of the proposed approach is to reduce the burden on MSs as long as the complexity of the task allows. The ‘Step 1-2’ hold point allows for consultation with all committees before proceeding with restructuring the guides
- Quality Assurance will be addressed within the Integrated Management System to be consistent with new GSR Part 2
Major comments that were accepted with modification:

- Include guidance on ensuring vendor and contractor qualification in NS-G-2.8
- NS-G-2.6 should include more guidance regarding obsolete equipment
- Management of vendors and suppliers will be addressed better in the Management System guide, under ‘Management of Contractors’
- This issue will be reconsidered after completion of revision of NS-G-2.12 (DS 485) concerning Long Term Operation
Requested Action

RASSC and WASSC approval for DPP DS497 submission to CSS is sought.
Thank you for your attention