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Background

• All safety guides for research reactors need to be revised to account for:

  – the recently published SSR-3:
    • New requirements (e.g. addressing relevant feedback from the Fukushima Accident);
    • Inclusion of subcritical assemblies;
    • Interface between nuclear safety and security.

  – feedback from the use of the document by MSs

  – operating experience feedback from the IAEA Incident reporting system for research reactors (IRSRR)

  – experience gained from INSARR missions
Revision Approach (1/2)

• The approach to revising the safety guides was:
  – developed in consultation with experts from MSs (CSM);
  – agreed within NSNI and NS;

• The approach was based on assessment of the new requirements in SSR-3 and a gap analysis of the scope and content of the Guides.
Revision Approach (2/2)

• The outcome was to revise the 11 guides in three groups according to:
  – depth of revisions needed (efforts of MSs also considered);
  – extent of technical interlinkages;
  – experience from the revision by amendment of safety guides for NPPs.

• Three groups:
  – Group 1: 8 guides (Operational Aspects) DS509 DPP
  – Group 2: 2 guides (Safety assessment, utilization and modification: SSG-20 and SSG-24) DS510
  – Group 3: SSG-22 (Graded Approach) DS511 – this DPP
Justification of DS511

The document (SSG-22) first published in 2012:

- SSG-22 needs to be revised in its entirety due to its heavy reliance on outdated references to individual paragraphs of NS-R-4 and a lack of guidance related to new requirements in SSR-3, particularly subcritical assemblies, design extension conditions and interfaces between nuclear safety and nuclear security.

- The revision will also incorporate the experience on application of the documents in MSs and ensure coherency and consistency with other IAEA safety standards.
Overview of document contents

The scope and structure of the safety guide remains essentially unchanged

CONTENTS

1. Introduction
2. Basic Elements of the Graded Approach
3. Regulatory Supervision
4. Management and Verification of Safety
5. Design
6. Operation
7. Preparation for Decommissioning
8. Interfaces between Safety and Security for a Research Reactor

References
Annexes
Status of the Document

- The draft DPP was reviewed internally according to the NSNI QA procedure, and approved by the Coordination Committees in 2017.

- Approved by EPResC, RASSC and WASSC in November 2017, for submission to CSS.
Summary of comments

• 13 comments from all Safety Standards Committees

• Comments received from Germany and Japan
  – The comments were mainly regarding compiling changes in an addendum, deleting sections and adding clarifications
  – All comments were addressed and resolutions were discussed with Members
  – There are no unresolved comments
Requested Action

Approval to submit DS511 to the CSS.
Thank you!