
Step 11c: For approval for submission to the CSS

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Outline

• Background information
  – Justification of the review
  – Schedule / Process of preparation

• Structure

• Comments and resolutions
  – Member States
  – Review Committees (second review)

• Summary

• Requested action
Justification: Safety Requirements

Requirements applicable to GS-G-4.1 (published 2004)
- GS-R-1 (Legal and Governmental Infrastructure for Nuclear, Radiation, Radioactive Waste and Transport Safety, 2000)
- NS-R-1 (Safety of NPPs: Design, 2000)
- NS-R-2 (Safety of NPPs: Operation, 2000)
- NS-R-3 (Site Evaluation for Nuclear Installations, 2003)

New framework of Safety Requirements (2009-2016)
- General Safety Requirements (all them applicable)
- NS-R-1, NS-R-2 and NS-R-3 superseded in 2016, respectively, by SSR-2/1 (Rev.1) (Safety of NPPs: Design), SSR-2/2 (Rev.1) (Safety of NPPs: Commissioning and Operation) and NS-R-3 (Rev.1) (same title)
To take into account

- Feedback experience and lessons from the Fukushima Daiichi NPP accident
- Feedback from the use of GS-G-4.1 by MSs
- Practices in MSs regarding the Safety Analysis Report for current reactor designs
  - New structure and content
- Consistency with other relevant Safety Guides
- How to revise and to keep updated the SAR, reflecting licensing basis and status of the NPP
Schedule of the review

DPP initiated in 2010 and 2013; reinitiated in 2015
- Approved by NUSSC/RASSC/WASSC in June 2015
- Approved by the CSS in November 2015

Preparation of the Draft Safety Guide
- Step 5: Three main Consultancy Meetings (1/2015-2/2016)
- Step 7: Review Committees (first review) in 2016
  - Consultancy Meeting to treat comments by review Committees
  - Draft approved by NUSSC, RASSC, WASSC, EPRsSc and NSGC in November 2016
- Review by Member States
  - Draft submitted for comments in January 2017
  - Consultancy Meeting in July 2017
  - Resolutions uploaded in the website 6 September
  - Review Committees (second review)
    - Resolutions uploaded in the website 3 November 2017
- Contributions to drafting/review: Canada, Czech Republic, France, Germany, Hungary, Japan, Russian Federation and USA. IAEA staff
- Technical Editorial review by the Technical Editors performed
  (Peer review of the editorial changes is taking place)
Structure

Section 1: INTRODUCTION
Section 2: GENERAL CONSIDERATIONS
Section 3: CONTENT AND STRUCTURE OF INDIVIDUAL CHAPTERS OF THE SAFETY ANALYSIS REPORT

- Chapter 1. Introduction and general considerations
- Chapter 2. Site characteristics
- Chapter 3. Safety objectives and design rules of structures, systems and components (SSCs)
- Chapter 4. Reactor
- Chapter 5. Reactor coolant system and associated systems
- Chapter 6. Engineered safety features
- Chapter 7. Instrumentation and control
- Chapter 8. Electric power
- Chapter 9. Auxiliary systems and civil structures
- Chapter 10. Steam and power conversion systems
- Chapter 11. Management of radioactive waste
- Chapter 12. Radiation protection
- Chapter 13. Conduct of operations
- Chapter 14. Plant construction and commissioning
- Chapter 15. Safety analysis
- Chapter 16. Operational limits and conditions for safe operation
- Chapter 17. Management for safety
- Chapter 18. Human factors engineering
- Chapter 19. Emergency preparedness and response
- Chapter 20. Environmental aspects
- Chapter 21. Decommissioning and end of life aspects

Appendix I: DEVELOPMENT OF THE SAFETY ANALYSIS REPORT IN DIFFERENT LICENSING STAGES
Appendix II: UNIFIED DESCRIPTION OF THE DESIGN OF SSCs AND PLANT EQUIPMENT
ANNEX - TYPICAL TABLE OF CONTENTS OF A SAFETY ANALYSIS REPORT
Comments by Member States

~300 comments in total (16 reviewers)

- Typographic and minor editorials: ~22%
- Clarifications (wording, terminology, Q/As): ~71%
- Changes/Completion of recommendations: ~7%

  - All the comments were carefully addressed
    - Resolutions posted in the website 6 September 2017

Second review by the review Committees

  - ~140 comments
    - All the comments were carefully addressed
      - Resolutions posted in the website 3 November 2017 (some updated 8 Nov)
    - ~13 comments related to RACC/WASSC; all accepted (or A/M)

- There are no unresolved comments/issues
Summary

• GS-G-4.1 was published in 2004
  – Applicable framework of Safety Requirements was revised in 2012 and 2016
  – Take into account current practices in Member States

• Review schedule
  – DPP initiated in 2010-2013, reinitiated in 2015 and approved by the CSS in November 2015
  – Draft Safety Guide submitted to MSs in January 2017
    • MSs comments: Resolutions posted 6 September 2017
    • Review Committees (2nd review): Resolutions posted 3/11, updated 8/11

• Technical editorial review performed by the Technical Editors

• DS449 approved by EPReSC for submission to CSS
Action Requested

- Approval of the Safety Guide by RASSC and WASSC for submission to the Commission on Safety Standards (CSS)
Thank you!
Change requested to para. 3.19.1

To enhance consistency between
- **DS449 footnote 16**, and
- **GSR Part 7, Req. 4, para. 4.19, Table 1, footnote c**

- **Footnote c**: “This includes events that are beyond the design basis accidents and, as appropriate, conditions that are beyond design extension conditions.”

- **DS449 Footnote 16**: “In accordance with GSR Part 7 [54], the operating organization should also make on-site emergency arrangements for preparedness and response for events that are go beyond the design basis accidents and, as appropriate, for conditions that are go beyond the design extension conditions but these arrangements are beyond the scope of the safety analysis report and this Safety Guide.”