Nuclear Safety Standards Committee

36th Meeting

16 – 18 October 2013

Agenda item 3.4

DPP DS476 Safety Requirements: Safety of Research Reactors

Tibor Hargitai, RRSS-NSNI
The proposed DS476 as the revision of NS-R-4 establishes safety requirements for research reactors.

The main objective of DS476 is to establish Safety Requirements for all stages of the lifetime and all activities important to safety of research reactors.
The revision is initiated by:

- The long term structure of safety standards approved by the IAEA Member States in 2008;
- The Safety Fundamentals publication (SF-1) published in 2006.
- The recently published General Safety Requirements and those GSRs are currently under development, which include aspects that were not originally covered by the NS-R-4.
- To incorporate experiences from MS and IAEA on the application of NS-R-4.
- The need to incorporate the relevant feedback from the accident of the Fukushima-Daiichi NPP.
The scope of DS476 will cover:

- research reactors of all types, sizes and power levels,
- critical assemblies, and sub-critical assemblies;
- new research reactors and existing ones;
- utilization, modifications and experiments.

DS476 will be coherent with the already published NPP documents for design and operation (SSR-2/1 and SSR-2/2)
# Proposed Table of Contents

1. **INTRODUCTION**

2. **APPLYING SAFETY OBJECTIVE, PRINCIPLES AND CONCEPTS**

3. **REGULATORY SUPERVISION**

4. **MANAGEMENT AND VERIFICATION OF SAFETY**

5. **SITE EVALUATION**

6. **DESIGN**

7. **OPERATION**

8. **PREPARATION FOR DECOMMISSIONING**

**APPENDIX**: SELECTED POSTULATED INITIATING EVENTS FOR RESEARCH REACTORS

**ANNEX I**: SELECTED SAFETY FUNCTIONS FOR RESEARCH REACTORS

**ANNEX II**: OPERATIONAL ASPECTS OF RESEARCH REACTORS WARRANTING PARTICULAR ATTENTION

**REFERENCES**
NUSSC Comments

Comments to the DPP were received from six NUSSC members from: Algeria, Argentina, France, Germany, Japan and USA.

All comments have been carefully considered and almost all of them were accepted. There is no unresolved comment.

The comments rejected were mainly due to the inconsistency with the Safety Glossary. Another comments related to removal of critical assemblies from the scope (CAs by definition are research reactors) and they were in the scope of NS-R-4.

Comment to delete regulatory supervision and siting.

IAEA answer: There is no intention to duplicate requirements of other standards but pursuant to requests of MS having small nuclear programme these requirements need to be included.
STEP 2: Approval of DPP by the Coordination Committee  
July 2013

STEP 3: Approval of DPP by the relevant review Committees  
4th Q 2013

STEP 4: Approval of DPP by the CSS  
1st Q 2014

STEP 5: Preparing the draft  
4th Q 2014

STEP 6: Approval of draft by the Coordination Committee  
1st Q 2015

STEP 7: Approval by the relevant review Committees for 
submission to Member States for comments  
2nd Q 2015

STEP 8: Soliciting comments by Member States  
4th Q 2015

STEP 9: Addressing comments by Member States  
4th Q 2015

STEP 10: Approval of the revised draft by the Coordination 
Committee Review in NS-SSCS  
4th Q 2015

STEP 11: Approval by the relevant review Committees 
for submission to the CSS  
2nd Q 2016

STEP 12: Endorsement by the CSS  
3rd Q 2016

STEP 13: Establishment by the Publications Committee 
and/or Board of Governors  
1st Q 2017

STEP 14: Target publication date  
3rd Q 2017
Requested action

To approve submittal to CSS

THANK YOU!