

## **NRR-PMDAPEm Resource**

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**From:** Miller, Ed  
**Sent:** Thursday, January 26, 2017 3:37 PM  
**To:** Miller, Ed  
**Subject:** Jan 25, 2017 Public Meeting With NEI on 10 CFR 50.69 - NRC Slides  
**Attachments:** NRC Comments on Industry 1\_16\_17 Template 10 CFR 50 69 final slides.pdf

The NRC slides from the meeting are attached

**Hearing Identifier:** NRR\_PMDA  
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**NRC Staff Comments on Industry  
Proposed 10 CFR 50.69 APPENDIX A:  
10 CFR 50.69 LICENSE AMENDMENT  
REQUEST TEMPLATE**

**Public Meeting  
January 25, 2017**



# Timeline

- August 2016 - Industry provided draft template R0
- Public meeting held on August 18, 2016 to discuss Revision 0 of the template
- Industry revised template to address staff comments – Revision 0E (11/16/16)
- Industry provided a further revised template Appendix A: 10 CFT 50.69 License Amendment Request Template (1/16/17)
- This meeting discusses 1/16/17 Revision

## 50.69 Application Template

- Staff reviewed the proposed template against information that would be expected in a LAR
- Categorization process is fairly complex and flexible with alternative paths
- The text in the “template” should be viewed as descriptive of the type of information that should be included, not as “boilerplate” text that should simply be repeated
- Staff comments provided on each Section

# 50.69 Application Template



- Cover letter & Section 3
  - Reference to PRA quality information to be submitted in future LARs can not used - remove
- Section 2.3
  - Description of license condition incorporating 50.69 into license should include optional template language for a license specific text such as:

*The licensee shall implement the items listed in [enclosure 1], Implementation Items of [licensee] letter [Reference], dated [Date], prior to categorizing systems under the process.*

# Overall Process

- Section 3.1.1 Overall Categorization Process – Template Proposal
  - Need to differentiate between bullets that are “clarifications” and that are “deviations”
  - Template follows pilot plant initial process not NEI 00-04
    - Categorize system functions HSS/LSS first using deterministic questions
    - Categorize components (SSCs) using PRAs - all Internal events PRA SSCs that are HSS remain HSS
    - All system functions supported by HSS SSCs become HSS functions
    - IDP must actively place any SSC in a HSS function into LSS
  - More efficient may be to follow NEI 00-04

# Overall Process

- Section 3.1.1 Overall Categorization Process – Pilot License Condition via Implementation item modified from Template back to NEI 00-04
  - *Pilot shall revise the categorization procedure to match the guidance in NEI 00-04 regarding the identification of preliminary HSS components. Functions supporting HSS components are HSS functions. The Integrated Decision-making Panel (IDP) must intervene to assign any of these HSS Function components to LSS.*



# Passive Categorization

- Section 3.1.2 Passive Categorization
  - Should describe the method because the EPRI method referenced in the Template is not developed for, nor generically endorsed for, 50.69 applications
  - Should include explanation and justification for any modifications to the referenced method(s) that are made to support 50.69 categorization
  - Should identify the limitations of the method, for example, referenced method only applies to Class 2 and 3 components

# Fire Hazards

- Section 3.2.2 Fire Hazards
  - Fire PRA should be used if one has been developed at the site consistent with NEI 00-04 and RG guidance on using PRA when available
  - Otherwise, if using FIVE
    - Review of screened scenarios to identify SSCs important to screening
    - All SSCs in analysis are HSS
  - Section implies that improvements may be made to the FIVE analysis and/or plant modifications incorporated. Changes should be summarized.
  - LAR needs to demonstrate how the plant specific FIVE analysis conservatively identifies fire related HSS SSCs.

# Seismic Hazards

- Section 3.2.3 Seismic Hazards
  - Seismic analysis must be updated based on the latest available hazard curves.
  - Plant specific approach should be explained, all SSCs credited in the safe shutdown equipment list are HSS, SSCs not in the margins shutdown paths are candidate LSS
  - Section implies that improvements may be made to the Margins analysis and/or plant modifications incorporated. Changes should be summarized.
  - LAR needs to demonstrate how the plant specific Margin analysis conservatively identifies Seismic related HSS SSCs.

# Seismic Hazards PRA

- RG 1.200, Rev 2 endorses ASME/ANS RA-Sa-2009, Part 5 (aka “Addendum A”)
- RG 1.200, Rev 2 does not endorse “Addendum B” of Part 5
- Licensees wishing to use Addendum B for 50.69 LARs should address the issues raised by NRC staff in 2011 letter to ASME (ML111720067)

# External Hazards

- Section 3.2.4 Other External Hazards
  - Accepted methods identify all system/structure functions and associated SSCs that are involved in protecting against the external hazard (e.g., tornado protections and credited safe shutdown path)
  - All credited SSCs are HSS
  - Section implies that improvements may be made to the IPEEE analysis and/or plant modifications incorporated. Changes should be summarized.
  - GL 88-20 insufficient, other external hazards are screened out using the criteria in ASME/ANS RA-Sa-2009 for screening external hazards.
  - LAR needs to describe how the plant specific equipment for each unmodelled external hazard has been identified and assigned HSS.

# PRA Review Process

- Section 3.3 PRA Review Process
  - For each PRA model, peer review history and F&Os should be submitted
  - Upgrades should all have been Peer reviewed
  - PRA Model of Record Should reflect current as-operated, as-built plant
  - Peer review consistent with RG 1.200 Revision 2 is needed consistent with RIS 2007-06

# Deterministic Questions

A Section describing the licensee planned implementation of the deterministic questions should be provided

- Each question that will be used should be discussed with description of how IDP will be instructed to interpret each question
- Two of the seven deterministic questions in NEI 00-04 ask whether an active function/SSC provides the “sole means” of accomplishing a specific mitigation function.
- Specification that alternative to a “sole means” can only be credited if proceduralized and included in operator training
  - Extension to NEI 00-04 guidance learned from pilot
  - Briefly mentioned in template Section 3.1.1

# Enclosure 1

- Attachment 1: List of Categorization Prerequisites
  - Not fully consistent with 3.1.1 (e.g., functions supporting PRA HSS components are HSS)
  - Presumably requested before “first procedure is written”
  - Some prerequisites may need to be license conditions
  - Should include documentation requirements



# Enclosure 1

- Attachment 2 (PRA results) should provide the risk from all hazards
- The expected use of Attachment 3 and Attachment 4 (FIVE and Seismic analysis changes) is unclear, what are they explaining/justifying?
- Attachment 5, F&O's is standard Risk-Informed LAR
- Attachment 6 (Comparison between old/new standards) is not needed, LAR should confirm review has been carried out using RG 1.200 Rev.2

# Enclosure 1



- Attachment 7 and 8 (External Hazards) needs additional explanation/NRC Staff review

# Program Documentation

- Template should address requirements for program documentation. NEI 00-04 guidance references 50.69(f) which requires documentation of the basis for SSC categorization. The pilot application identified the following documentation:
  - (1) program procedures describing the process
  - (2) system functions, identified and categorized with the associated bases;
  - (3) mapping of components to supported function(s);
  - (4) PRA model results, including sensitivity studies;
  - (5) hazards analyses, as applicable;
  - (6) passive risk assessment results and bases;
  - (7) categorization results including all associated bases and RISC classifications;
  - (8) component critical attributes;
  - (9) results of periodic reviews and SSC performance evaluations,
  - (10) IDP meeting minutes and qualification and training records of the IDP members.