

NRR-DMPSPeM Resource

From: Miller, Ed
Sent: Monday, January 22, 2018 10:11 AM
To: Miller, Ed
Subject: Slides for Jan 18, 2018, Public Meeting
Attachments: NEI Presentation to NRC - 50.69 LAR Template R4 Updates.pdf

Attached are the NEI presentation slides for the January 28, 2018, public meeting to discuss 10 CFR 50.69 LARs.

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**NEI 50.69 LAR Coordinating
Committee**

January 18, 2018

50.69 LAR TEMPLATE UPDATES

TEMPLATE UPDATES

- Provide update on changes to 50.69 LAR template to respond to NRC feedback and generic issues
 - Overview of Categorization Process
 - Preliminary Safety Significance of Functions
 - Passive Categorization
 - Addressing Other External Events
 - Addressing Shutdown Risk

NEI 00-04 ENDORSEMENT

NRC Regulatory Guide 1.201 provides that the categorization process described in this document (with any noted exceptions or clarifications) is acceptable for implementation of 10 CFR 50.69. The description required by §50.69(b)(2)(i) may be limited to a statement that the process of NEI-00-04 was followed. Any exceptions or alternative methods to portions of the NEI-00-04 process should be noted and justified.

- NEI 00-04 Section 2 as endorsed by RG 1.201

INTENT OF LAR TEMPLATE

- Confirm the use of the categorization process as described in NEI 00-04
- Provide clarifications for NEI 00-04
- Standardize language and justifications on known deviations
- Standardize content and formatting for efficient staff review

INTENT OF COORDINATING COMMITTEE

- Review all 50.69 LARs for consistency against template
 - Identify recommendations to improve consistency
 - Not a full technical review
 - Escalation of issues to industry management
- Address generic issues through:
 - Changes to the template
 - “Generic RAI” responses

OVERALL CATEGORIZATION PROCESS



SEQUENCE OF STEPS

- RG 1.201 states that “the implementation of all processes described in NEI 00-04 (i.e., Sections 2 through 12) is integral to providing reasonable confidence” and that “all aspects of NEI 00-04 must be followed to achieve reasonable confidence in the evaluations required by §50.69(c)(1)(iv).”
 - PRA-based evaluations
 - non-PRA approaches
 - Seven qualitative criteria in Section 9.2 of NEI 00-04
 - defense-in-depth assessment
 - passive categorization methodology

SEQUENCE OF STEPS

- The order in which each of the elements of the categorization process is completed is flexible
- If any element of the process results in an HSS determination the component is preliminary HSS

PRELIMINARY VS ASSIGNED

- “Preliminary” is the same as “Candidate”
- Categorization of an SSC or function is considered “preliminary” until it is approved by the IDP
- Once approved, categorization is considered “assigned”

EVALUATION LEVELS AND ALLOWED IDP CHANGES

Element	Categorization Step - NEI 00-04 Section	Evaluation Level	Drives Associated Functions	IDP Change HSS to LSS
Risk (PRA Modeled)	Internal Events Base Case – Section 5.1	Component	Yes	Not Allowed
	Fire, Seismic and Other External Events Base Case		No	Allowable
	PRA Sensitivity Studies		No	Allowable
	Integral PRA Assessment – Section 5.6		Yes	Not Allowed
Risk (Non-modeled)	Fire, Seismic and Other External Hazards	Component	No	Not Allowed
Defense-in-Depth	Shutdown – Section 5.5	Function/Component	No	Not Allowed
	Core Damage – Section 6.1	Function/Component	Yes	Not Allowed
	Containment – Section 6.2	Component	Yes	Not Allowed
Qualitative Criteria	Considerations – Section 9.2	Function	N/A	Allowable
Passive	Passive – Section 4	Segment/Component	No	Not Allowed



PASSIVE CATEGORIZATION

USE OF ANO RI-RRA FOR CLASS 1 COMPONENTS

- Class 1 components will be categorized using ANO methodology
 - Methodology does not need to be modified to address Class 1
- ANO RI-RRA passive methodology implements the RI-ISI consequence evaluation process
 - RI-ISI process is implemented on Class 1
 - Process is consequence based and independent of class
 - Supplemented with additional qualitative considerations for 50.69

OTHER EXTERNAL EVENTS

OTHER EXTERNAL EVENTS

- PRA Model addresses hazard
 - Results incorporated into the Integral Assessment
- Unscreened IPEEE Hazard Scenario Results (Figure 5-6)
 - Components required for screened scenarios are HSS
- Screened hazard with credited components (Figure 5-6)
 - Credited components are HSS
- Screened hazard based on frequency
 - Hazard is considered insignificant to the categorization process

SHUTDOWN RISK

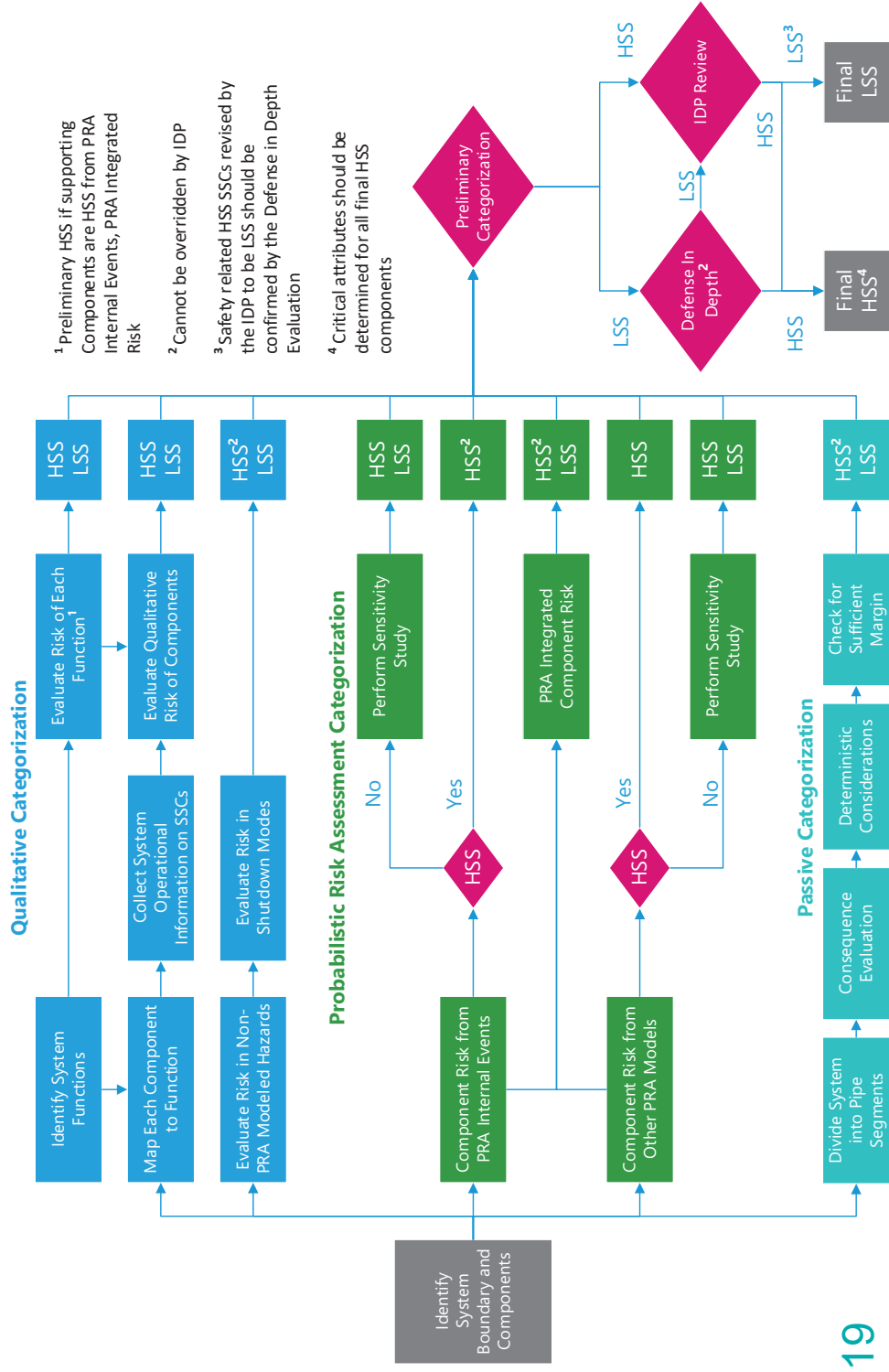
SHUTDOWN RISK

- NEI 00-04 criteria used to determine safety significance as illustrated in Figure 5-7 of NEI 00-04
- SSCs that meet the two criteria (i.e.,) described in Section 5.5 NEI 00-04 will be considered preliminary HSS.
 - Considered part of a “primary shutdown safety system”
 - Failure would initiate an event during shutdown conditions

PROCESS FOR COMMUNICATION

- NEI Coordinating committee should serve as the communication channel for resolving generic issues
- Opportunity to improve communication of generic issues
 - Need mechanism for NRC staff to communicate issues early and directly to committee through NEI
 - Organize another workshop to establish common understanding of the categorization process

BACK UP SLIDES



- ¹ Preliminary HSS if supporting Components are HSS from PRA Internal Events, PRA Integrated Risk
- ² Cannot be overridden by IDP
- ³ Safety related HSS SSCs revised by the IDP to be LSS should be confirmed by the Defense in Depth Evaluation
- ⁴ Critical attributes should be determined for all final HSS components

