

NRR-DMPSPeM Resource

From: ANDERSON, Victoria <vka@nei.org>
Sent: Monday, June 18, 2018 11:11 AM
To: Miller, Ed
Subject: [External_Sender] RE: NRC Slides for June 18, 2018 Public Meeting
Attachments: NEI Presentation for June 18 2018 public meeting.pptx

These are ours for today. We will bring copies.

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From: Miller, Ed [<mailto:Ed.Miller@nrc.gov>]
Sent: Monday, June 18, 2018 11:03 AM
To: ANDERSON, Victoria
Subject: NRC Slides for June 18, 2018 Public Meeting

Subject slides attached.

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NRC Public Meeting on PRA Methods and Risk-Informed Licensing Applications

June 18, 2018

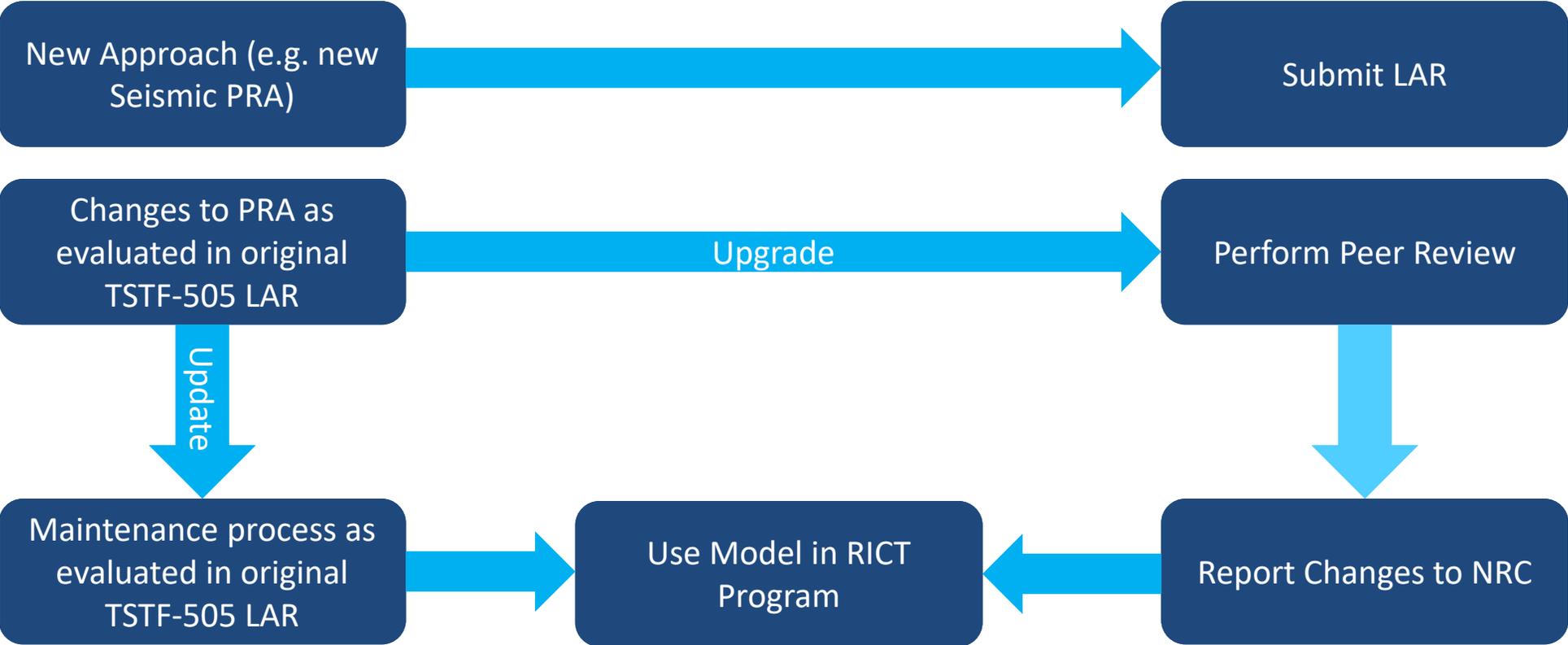


- Achieve common understanding of existing regulatory guidance regarding PRA Methods
- Evaluate relevant portions of NEI 06-09 and SE
- Discuss relevant NEI correspondence
 - June 14, 2018 letter on NEI 16-04 and PRA methods
 - April 2018 enhanced proposal on TSTF-505 PRA upgrade reporting
 - Identify desired refinements
- Develop path forward supports continued NRC review of PRA information to ensure public health and safety while maximizing efficiency of licensing processes

- The TSTF-505 draft SE included the following paragraph (e):
 - The risk assessment approaches and methods shall be acceptable to the NRC. The plant PRA shall be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at the plant, as specified in Regulatory Guide 1.200, Revision 2. Methods to assess the risk from extending the completion times must be PRA methods used to support this license amendment, or other methods approved by the NRC for generic use; and any change in the PRA methods to assess risk that are outside these approval boundaries require prior NRC approval.
- The draft SE described "methods approved by the NRC for generic use" as follows:
 - The licensee has also established a periodic update and review process for the PRA and associated CRMP model. {NOTE: Verify there are no changes to the change control processes for PRA methods. If so, insert a discussion of the change control process that is in the license condition or TS Section 5 requirement. The addition to TS Section 5 paragraph (e) requires that RICTs be calculated using NRC accepted methods. The NRC documents acceptance of PRA methods in a number of different ways including plant specific SEs, topical reports, SEs, facts and observations (F&O) closures, FAQs, and through the proposed vetting panel process.}
- Industry finds that this departs from established regulatory guidance and original intent of NEI 06-09
 - Alternative proposal developed to address staff concerns while maintaining consistency with established regulatory guidance

- Licensees understand NRC's interest in continued understanding of PRA information following implementation of TSTF-505
 - Can be achieved without requiring NRC approval of PRA methods and data
 - Requirements for explicit approval would be unnecessarily burdensome and inefficient for NRC and licensees
- Industry proposal involves new LARs, as appropriate, and periodic reporting requirements
 - Latest version addresses NRC concerns as expressed in February 2018 correspondence

Overview of Proposal



- Majority of NRC feedback focused on reporting requirement regarding PRA upgrades
- Several enhancements made to address NRC comments
 - Specified content of report
 - Specified timeframe for NRC response to report (30 days)
 - Specified NRC recipient for report

- PRAs are not required for operating plants licensed under 10 CFR 50, therefore, no regulatory requirements related to PRA methods
 - Expectations outlined in regulatory guidance for voluntary licensing applications
- Regulatory guidance
 - RG 1.174
 - RG 1.200
 - Program-specific guidance
 - TSTF-505 and supporting documents
 - NFPA 805
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- “RG 1.200 is an important related guidance document that describes one acceptable approach for determining whether the base PRA, in total or the parts that are used to support an application, is acceptable for use in regulatory decisionmaking for LWRs.”
 - Does not call for NRC to approve individual methods used in licensee PRAs supporting risk-informed licensing applications
 - Application of the guidance in RG 1.200 is sufficient.

- Section 3.3.1: “If the pieces of the PRA can be shown to have met the requirements of these documents, with attention paid to the NRC’s objections, it can be assumed that the analysis is technically correct. Therefore, other than an audit, a detailed review by NRC staff of the base model PRA will not be necessary.”
 - Peer review against the ASME/ANS PRA Standard is sufficient for demonstrating PRA technical adequacy.
- Table 15, Item 5: ”determines that, when acceptable methods are not specified in the standard, or when alternative methods are used in lieu of those identified in the standard, the methods used are adequate to meet the requirements of the standard”
 - Peer reviews are capable of addressing new methods
 - NEI PRA peer review guidance updated to support this more explicitly

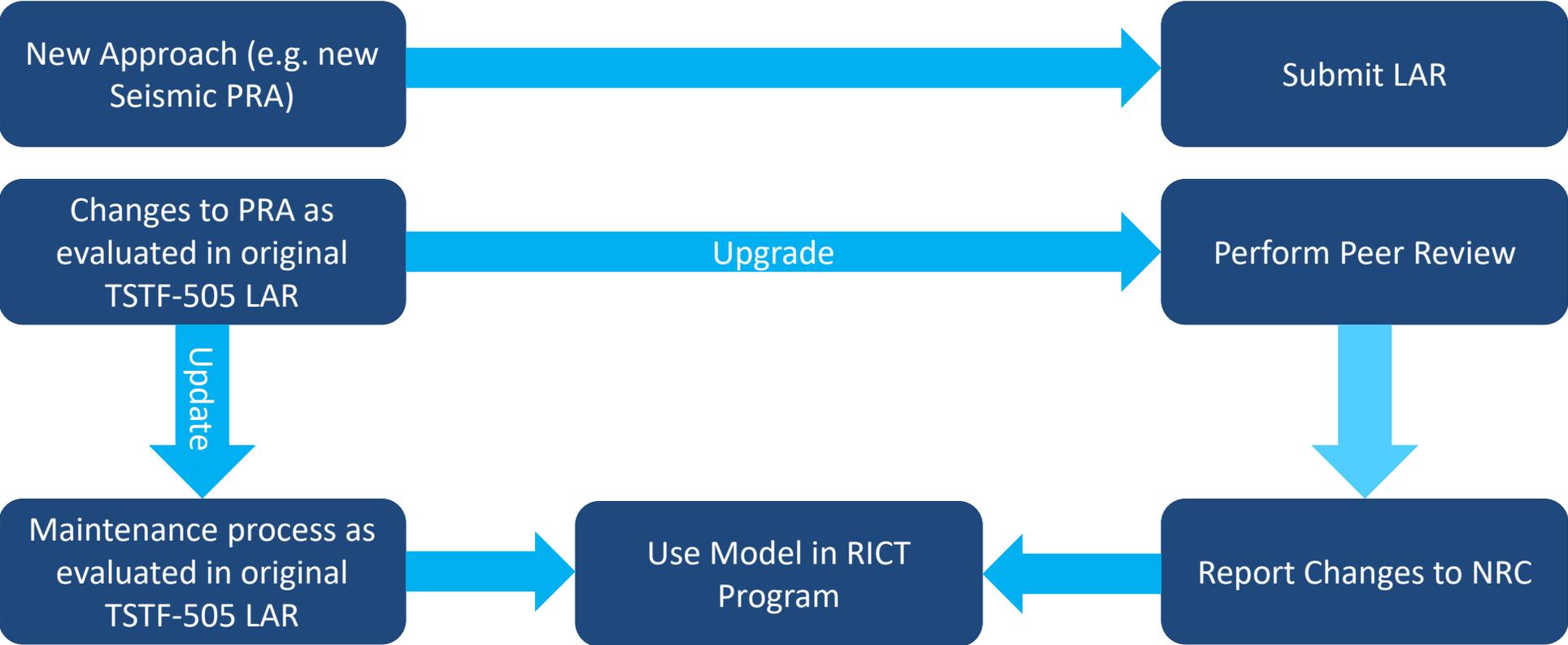
- “The PRA elements are assessed to determine whether they have been performed in a technically correct manner that conforms to the NRC endorsed PRA standards. This can be determined by an assessment of whether the PRA elements are performed consistent with the standard and peer review process as endorsed in the appendices to RG 1.200.”
 - A licensee’s evaluation using Regulatory Guide 1.200 is sufficient to support a review.

- Section 4.4.5.3 “The PSA [Probabilistic Safety Assessment] approach, methods, and data shall be acceptable to the AHJ [Authority Having Jurisdiction].”
 - “Acceptable to the AHJ” - relevant regulatory body approves of the general approach to be used
- Example: Permitting occupancy of buildings for federal workers
 - Regional GSA fire protection engineer (the AHJ), may accept the use of NFPA 25 for sprinkler testing
 - Does not mean that the regional GSA fire protection engineer individually reviews and accepts every action undertaken as part of sprinkler testing in a given facility
 - Means that testing is acceptable if done in accordance with NFPA 25.
- Analogous interpretation for implementation of NFPA 805
 - Use of the ASME/ANS PRA Standard, as endorsed in Regulatory Guide 1.200, to evaluate the acceptability of a licensee’s PRA via the peer review process

- NEI 06-09 SE
 - “As part of its review and approval of a licensee’s application requesting to implement the RMTS, the NRC staff intends to impose a license condition that will explicitly address the scope of the PRA and non-PRA methods approved by the NRC staff for use in the plant-specific RMTS program. If a licensee wishes to change its methods, and the change is outside the bounds of the license condition, the licensee will need NRC approval, via a license amendment, of the implementation of the new method in its RMTS program.”
 - “PRA and non-PRA methods approved by the NRC staff for use in the plant-specific RMTS program”
 - In this context, “method” refers to the analysis approach (PRA or non-PRA) that a licensee uses to evaluate a hazard
 - “TR NEI 06-09, Revision 0, permits the use of either PRA or non-PRA type quantitative evaluations, including conservative or bounding methods, to assess risk of these events and conditions. The specific method to be utilized in the RMTS program would be identified and technically justified by the licensee in its plant-specific application to implement the RMTS, and would be reviewed and approved by the NRC staff in a license amendment implementing the RMTS.”
 - “Conservative or bounding methods” as an example of non-PRA methods also indicates that the intent of the safety evaluation is that “method” in the context of the referenced license condition refers to the analysis approach used to evaluate a hazard

- NEI 06-09
 - “Quantification of risk due to internal fire and other significant external events is also necessary for this application, through PRA or bounding methods.”
 - In “PRA or bounding methods,” the term “methods” means “technical approach to addressing a hazard”
 - PRA or non-PRA approaches.
 - “The scope of the PRA model shall include Level 1 (CDF) plus large early release frequency (LERF). In addition, RICT and RMAT calculations shall include contributions from external events, internal flooding events, and internal fire events. Inclusion of these factors within the PRA is not explicitly required provided alternate methods (e.g., conservative or bounding analyses) are used to accomplish this requirement.”
 - NRC took no exception to these sections, and clearly aligned with this interpretation

Overview of Proposal



- Realize mutual understanding of general regulatory guidance related to PRA methods
- Finalize content of administrative TS requirement on reporting of PRA upgrades
- Continue to foster understanding of and confidence in PRA peer review process