

NRR-DRMAPEm Resource

From: Miller, Ed
Sent: Wednesday, July 17, 2019 2:41 PM
To: Miller, Ed
Subject: Additional Industry Slides for Public Meeting
Attachments: Xcel 50.69 Uncertainty Lessons Learned.pptx

Attached are additional industry slides for the July 18, 2019, public meeting.

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Xcel Lessons Learned – 10 CFR 50.69 Treatment of Uncertainties

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Current Status of 10 CFR 50.69 Submittals

- Monticello
 - Submitted LAR – March 2018
 - eAudit conducted
 - One round of RAIs with one subsequent clarification call
 - Submitted an updated RAI response
- Prairie Island
 - Submitted LAR – July 2018
 - eAudit conducted
 - One round of RAIs with a subsequent clarification call
 - Preparing an updated RAI response for 8/2 submittal

Original Approach to Uncertainty Evaluation

- Monticello
 - Based on review of existing Internal Events and Fire PRA uncertainty notebooks, developed a proposed list of uncertainties and resolution approaches for the LAR
 - All items were either dispositioned as addressed by standard NEI 00-04 uncertainty evaluations or were likely to result in a greater number of HSS components

Original Approach to Uncertainty Evaluation (continued)

- Prairie Island
 - Performed a documented review of the Internal Events and Fire PRA uncertainty notebooks and evaluated uncertainties for potential categorization impacts
 - Identified uncertainties included in LAR
 - Some were dispositioned as not expected to impact the categorization
 - Some were considered addressed by existing NEI 00-04 sensitivity studies
 - Some were assessed as resulting in more HSS categorizations
 - Some were noted to be assessed in specific system studies on a case-by-case basis if needed

NRC Uncertainty-related RAIs for Monticello

- Requested documentation for how list of uncertainties in LAR was determined
- Requested clarification as to how the approach used complied with NUREG-1855, Revision 1 approach
- Had some specific questions about proposed treatments of several fire uncertainties

Response to MT Uncertainty RAIs

- Developed a documented basis for Monticello uncertainties (similar to approach used for PI)
 - Discovered that the fire PRA uncertainties did not explicitly consider the EPRI generic uncertainties noted in 1026511
 - Updated the uncertainty notebook to included these
 - Uploaded the documentation to the eAudit portal
- Assessed the updated approach/documentation against NUREG-1855
 - Determined that the mostly qualitative approach used *met the intent* of steps C-1, C-2, E-1, and E-2

Response to MT Uncertainty RAIs (continued)

- Re-evaluation of the previously reported uncertainties resulted in most of the previous uncertainties being deleted and several new ones added
 - The fire PRA uncertainties that were being questioned in the RAIs were actually deleted as a result of the uncertainty update
 - An updated LAR uncertainty enclosure was prepared
- Based on ongoing Duke RAIs at the same time, some of the approach proposed by Duke (concerning use of performance monitoring as an acceptable approach to address 50.69 uncertainties) was also included in the RAI response

Follow-up NRC Clarification Call for MT

- NRC requested a clarification call after receiving the RAI responses
- NRC did not agree with the rationale for use of performance monitoring
 - Intent of the NUREG-1855 performance monitoring discussion (according to NRC) is intended only for monitoring changes in equipment performance after alternative treatment implementation
 - Requested removal of the portions of the RAI response that proposed this approach

Prairie Island Uncertainty RAIs

- Similar RAIs were also received for PI; however, since a documented rationale for the identified uncertainties was provided in the eAudit, questions pertained to degree of compliance with NUREG-1855 approach and questions about specific proposed uncertainty resolutions
 - Particularly how “case-by-case” evaluations would be performed and how it would be decided when they were needed

Response to PI Uncertainty RAIs



- Prepared response noting that current approach meets the intent of NUREG-1855 steps C-1, C-2, E-1, and E-2 (same response as for MT RAIs)
 - Determined that the fire PRA uncertainty notebook needed to be updated and that the EPRI fire generic PRA uncertainties needed to be addressed
- Updated the existing documented basis for the internal events and fire PRA uncertainties
 - Again, many of the previously reported uncertainties were determined to not be uncertainties
 - An updated LAR enclosure was prepared

Response to PI Uncertainty RAIs (continued)



- The “case by case” uncertainties that were being questioned were largely eliminated
 - Determined to not be an uncertainty, or proposing that existing sensitivity studies or other SSC categorization methods (e.g., passive, DID, etc.) would capture any variations in HSS/LSS categorization
- One case, concerning a conservative assumption about rupture of low pressure piping during an ISLOCA was explicitly evaluated in a new generic sensitivity study
 - Showed that no components would change to HSS category
- Updated uncertainty evaluation report uploaded to the eAudit portal
- The discussion of the use of performance monitoring to address any remaining uncertainties was also included in the RAI response (same as MT RAI response)

Follow-up NRC Clarification Call for PI

- Following NRC review of the RAI responses and the updated uncertainty assessment, a clarification call was requested by NRC
- Again requested deletion of text proposing use of performance monitoring from the RAI response
- For four of the internal events uncertainties that had been removed on the basis of crediting sensitivities and other categorization methods, NRC requested that these be removed on the basis of other criteria.

Questions?

