

NRR-DMPSPeM Resource

From: Chawla, Mahesh
Sent: Wednesday, August 1, 2018 3:20 PM
To: Catron, Steve (Steve.Catron@fpl.com)
Cc: Kilby, Gary; Julka, Anil K.; Manthei, Scott; Schultz, Eric; LaPlante, Richard
Subject: Final - Second Round RAIs - Point Beach Nuclear Plant, Units 1 and 2 - License Amendment Request to Resolve Non-conformances Relating to Containment Dome Truss - EPID L-2017-LLA-0209
Attachments: Second_Round_RAIs.docx

Mr. Catron,

In a letter dated March 31, 2017, (Agencywide Documents Access and Management System [ADAMS] Accession No. ML17090A511), as supplemented by two letters dated April 12, 2018, and a letter dated May 29, 2018 (ADAMS Accession Nos. ML18102B164, ML18102B173, and ML18149A466), NextEra Energy Point Beach, LLC (NextEra) requested an amendment to the renewed facility operating license numbers DPR-24 and DPR-27 for Point Beach Nuclear Plant, Units 1 and 2, respectively. The proposed amendment uses a risk-informed approach to resolve construction truss design code non-conformances.

The NRC staff issued Requests for Additional Information (RAIs) by letter dated January 31, 2018 (ADAMS Accession No. ML18025C043), and the licensee provided responses to the RAIs in letters dated April 12, 2018, and May 29, 2018. The NRC staff reviewed the responses and participated in a public meeting with the licensee on July 12, 2018 (ADAMS Accession No. ML18190A226), to discuss staff questions on the responses. Subsequently, the staff has determined that additional information was needed to complete its safety evaluation. The requests for additional information (RAIs) are provided as an attachment to this email.

The requested additional information does not contain any proprietary or SUNSI information. On August 1, 2018, you informed NRC that there is no need for a clarification call, and you agreed to provide the response to the subject RAIs by August 31, 2018. Thanks

Sincerely,

Mahesh Chawla
Project Manager
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Amendment Request to Resolve Non-conformances Relating to Containment Dome Truss - EPID
L-2017-LLA-0209

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Second Round Request for Additional Information
Regarding Point Beach Nuclear Plant, Units 1 and 2
License Amendment Request for Risk-Informed Approach to Resolve Construction Truss
Design Code Nonconformances
(EPID L-2017-LLA-0209)

Request for Additional Information (RAI)-1.a-1

In RAI-1.a, the staff requested the licensee to clarify the changes to the licensing basis sought by the submittal. In its response to RAI-1.a (ADAMS Accession No. ML18102B164), the licensee provided a listing of proposed licensing basis changes including a tabular comparison of the current licensing basis and the proposed criteria for each change. Specifically for the containment structure concrete behind the steel liner, the licensee included two proposed criteria. One of those criteria permits localized concrete strain exceedance if “[l]ocalized exceedance of strain limits does not significantly reduce containment structure shell strength.” The intent and purpose of that criterion is not evident to the staff based on Section 5.6 of Enclosure 5 of the submittal (ADAMS Accession No. ML17090A511), and the other criterion that requires the liner maintaining leak-tight integrity. Further, the term “significantly reduce” in the proposed criterion is not defined in the response.

Remove the cited criterion or clarify the term “significantly reduce” as well as justify the purpose of the cited criterion.

RAI-10.a-1

The response to RAI-10.a stated that the logic used to develop the event trees in Sections 5.2.1 through 5.2.3 of Enclosure 4 of the original submittal was completely revised to address staff’s RAIs. Section F.5 of Enclosure 2 to the supplement dated April 12, 2018 (ADAMS Accession No. ML18102B164), provides discussion of the top events in the revised event tree for the demonstrably conservative analysis for the seismic initiator. The top event description for containment truss induced very small loss-of-coolant accident (LOCA) (“LOCA – CT induced very small LOCA”) indicates that a very small LOCA would occur due to the in-core instrumentation seal table failure from a postulated falling truss member. It is expected that a very small LOCA would require Power Operated Relief Valves (PORVs) as a mitigation system but in the event tree in Section F.4 of Enclosure 2 to the supplement dated April 12, 2018, only High Head Injection (HHI) appears to be required for mitigation of “LOCA – CT induced very small LOCA.” Such a modeling appears to be indicative of treatment of the event as a small LOCA, not a very small LOCA. Therefore, the logic model for the “LOCA – CT induced very small LOCA” appears to be different from the description.

Justify the modeling of the “LOCA – CT induced very small LOCA” event as a small LOCA.

RAI-12.c-1

In RAI-12, the staff noted that the initiating event frequencies in the submittal (ADAMS Accession No. ML17090A511) for steam and feedwater line breaks inside containment were based on Electric Power Research Institute (EPRI) report 302000079, Revision 3, “Pipe Rupture Frequencies for Internal Flooding Probabilistic Risk Assessments.” The staff further noted that the initiating frequencies for the steam and feedwater lines in the EPRI report were for breaks outside containment and considered inapplicable to the risk assessment in the submittal.

The response to RAI-12.c referred to Section 2.3.2 of Enclosure 2 to the April 12, 2018, supplement (ADAMS Accession No. ML18102B164). According to the information in that section, the licensee derived the steam line break inside containment initiating event frequency from "SPAR [Standardized Plant Analysis Risk] Event Data and Results 2015 Parameter Estimation Update" whereas the licensee continued to use information from the aforementioned EPRI report for the feedwater line break inside containment (FLBIC) initiating event frequency. The staff notes that the "SPAR Event Data and Results 2015 Parameter Estimation Update" contains the initiating event frequency for FLBIC. The licensee has not provided a basis for the continued use of the information from the EPRI report for FLBIC even though the information does not appear to be applicable to the risk assessment in the submittal.

Quantitatively demonstrate the impact of using the initiating event frequency for FLBIC from "SPAR Event Data and Results 2015 Parameter Estimation Update" on the reported results in the context of this application.

RAI-15.a-1

In its response to RAI-15.a, the licensee provided the target assessment document (ADAMS Accession No. ML18102B173), supporting the supplement dated April 12, 2018, Section 3.5.4 of the target assessment document, discusses the likelihood of the main steam vent line failure due to postulated falling truss member. However, Attachment G of Enclosure 2 to the supplement dated April 12, 2018 (ADAMS Accession No. ML18102B164), evaluates the failure probability of the main steam lines for use in the demonstrably conservative analysis for the seismic initiator. It is unclear how the main steam vent line failure due to postulated falling truss member is reflected in the demonstrably conservative analysis.

Describe and justify how the main steam vent line failure due to postulated falling truss member was considered in the demonstrably conservative analysis for the seismic initiator.