NRR-PMDAPEm Resource

From: Beltz, Terry

Sent: Friday, November 14, 2014 7:58 AM

To: Millen, Michael (Michael.Millen@nexteraenergy.com)

Cc: Hanneman, Harv; Klein, Alex; Fields, Leslie; Miller, Barry; Metzger, Brian; Wu, Angela;

Pelton, David; Wall, Scott

Subject: Point Beach Nuclear Plant, Units 1 and 2 – Follow-up Requests for Additional Information

(AFPB) re: NFPA 805 License Amendment Request Review (TAC Nos. MF2372 and

MF2373)

Dear Mr. Millen:

By letter dated June 26, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML131820453), NextEra Energy Point Beach, LLC (NextEra) submitted a license amendment request for the Point Beach Nuclear Plant, Units 1 and 2 (Point Beach). The proposed amendment request would transition the fire protection licensing basis at Point Beach to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.48(c), National Fire Protection Association Standard NFPA 805. In an e-mail dated September 9, 2013 (ADAMS Accession No. ML13256A197), the NRC staff informed NextEra that supplemental information was required to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment request in terms of regulatory requirements and protection of public health and safety and the environment. In response to the NRC staff's request, NextEra provided supplemental information in a letter dated September 16, 2013 (ADAMS Accession No. ML13259A273). In a letter dated September 25, 2013 (ADAMS Accession No. ML13267A037), the NRC staff concluded that there was information in sufficient detail to enable the staff to begin its technical review and make an independent assessment regarding the acceptability of the proposed license amendment.

The NRC staff in the Office of Nuclear Reactor Regulation subsequently determined that additional information was needed to complete its review. The final Point Beach NFPA 805 RAIs were issued in an e-mail dated May 27, 2014 (ADAMS Accession No. ML14153A390). The NRC staff conducted an onsite audit during the week of June 9, 2014. As a result of the audit, the NRC staff identified that two changes were required to the final RAIs. The changes affected PRA RAI 03, and added a new PRA RAI 25. A final and revised set of RAIs were issued via e-mail on July 8, 2014 (ADAMS Accession No. ML14189A365).

The NRC staff requested that NextEra provide its RAI responses in accordance with a 60-, 90-, and 120-day timeline, and the responses to these RAIs have been submitted for NRC staff review. The NRC staff has reviewed the responses and developed an additional set of RAIs associated with Fire Protection Engineering (FPE) and Fire Modeling (FM), which are provided below. In a teleconference on November 12, 2014, the content of the RAIs was discussed with members of your staff.

During the teleconference, it was agreed that NextEra would provide a response to the below FPE and FM RAIs by December 19, 2014. It was also discussed that an additional set of RAIs associated with the staff's PRA review will be provided to NextEra in the near future.

Please don't hesitate to contact me if you have any additional questions.

Sincerely,

Terry.Beltz@nrc.gov

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Fire Protection Engineering (FPE)

FPE 07.01

NextEra's response to FPE RAI 07 shows the arrangement of the hydrogen tanks next to the Turbine Building (TB). Along the side of the TB, there are many supply fan ducts that take air from outside and supply it to the TB ventilation system, and several of these supply fan ducts are in close proximity to the hydrogen storage tanks. As such, hydrogen could potentially be carried into the TB where it could result in an explosive mixture and cause an explosion if there are significant leaks from these tanks (including lifting of the tank relief valves).

In addition, the FPE RAI 07 response stated that the line-of-sight distance between the hydrogen tanks and the closest opening is greater than 25 feet as required by NFPA 567. However, in reviewing NFPA 567, Table 2, the required distance between the hydrogen system and air compressor intakes or inlets to ventilating or air-conditioning equipment is 50 feet.

Please provide the following additional information:

- 1. A description of the supply fan ducts along the side of the TB, including the construction details such as weather sealing and the location of the air intake openings.
- 2. Justification for citing the 25 foot separation requirement of NFPA 567 in lieu of the 50 foot requirement for supply fan ducts.

Fire Modeling (FM)

FM RAI 01.01

In a letter dated August 28, 2014 (ADAMS Accession No. ML14241A267), NextEra responded to FM RAI 01.c and stated that fire growth and propagation was not postulated for fully-enclosed cable trays in the Cable Spreading Room. NextEra justified this assumption, in part, on the fact that the cables are placed on a ½-inch layer of ceramic fiber insulation located in the top of the enclosed trays.

Please explain whether fire growth and propagation were not postulated in enclosed cable trays in other areas of the plant, and provide technical justification for this assumption for trays that do not have at least ½-inch of ceramic fiber insulation between the cables and the top cover.

FM RAI 01.02

In a letter dated August 28, 2014 (ADAMS Accession No. ML14241A267), NextEra responded to FM RAI 01.i(ii) and stated that both the Beyler's method and MQH method were used in the MCA to calculate the minimum HRR required to generate a damaging HGL in the exposing compartment. NextEra described both methods, but did not provide details on which of the two methods was used in any given compartment.

Please describe the criteria that were used in the MCA to select either the method of Beyler or the method of MQH for calculating the minimum HRR required to develop a damaging HGL in each exposing compartment.

FM RAI 02.01

In a letter dated July 29, 2014 (ADAMS Accession No. ML14210A645), NextEra responded to FM RAI 02.b and stated that a 6-minute delay in damage was assumed for cables in the fully enclosed cable trays in the Cable Spreading Room. NextEra justified this assumption, in part, on the fact that the cables are placed on a ½-inch layer of ceramic fiber insulation located in the top of the enclosed trays.

Please explain whether there are enclosed cable trays, or trays with a bottom cover in other areas of the plant, where a damage delay greater than 4 minutes was assumed. For each area, provide the technical justification for this assumption.

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