NRR-PMDAPEm Resource

From: Chawla, Mahesh
Sent: Tuesday, November 07, 2017 5:08 PM
To: Schultz, Eric; Manthei, Scott; Scherwinski, Brenda (Brenda.Scherwinski@nexteraenergy.com); Locke, Kim (Kim.Locke@nexteraenergy.com); Kilby, Gary; Catron, Steve (Steve.Catron@fpl.com)
Subject: Draft Request for Additional Information (RAI) - License Amendment Request (LAR) to Revise the Emergency Action Level (EAL) Scheme for Point Beach Nuclear Plant (PBNP), Units 1 and 2 - (CAC No. MF9589, EPID L-2017-LLA-0278)

By application dated June 23, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17174A458), NextEra Energy Point Beach, LLC, requested approval of changes to revise the emergency action level (EAL) scheme for the Point Beach Nuclear Plant (PBNP), Units 1 and 2.

The requirements of Section 50.47(b)(4) to Title 10 of the *Code of Federal Regulations* (10 CFR) state, in part, that:

> *A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee...*

The most recent industry EAL scheme development guidance is provided in the Nuclear Energy Institute (NEI) document NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors" (ADAMS Accession Number ML12326A805). By letter dated March 28, 2013, the NRC endorsed NEI 99-01, Revision 6, as acceptable generic (i.e., non-plant-specific) EAL scheme development guidance.

PBNP proposes to revise their current EAL scheme to one based upon NEI 99-01, Revision 6.

The requests for additional information (RAI) listed below are necessary to facilitate the continued technical review being conducted by the U.S. Nuclear Regulatory Commission (NRC). A timely and thorough response to these draft RAIs is requested in order to meet the proposed deadline requested by the licensee.

DRAFT REQUEST FOR ADDITIONAL INFORMATION

PBNP RAI-1

For proposed EALs RU1, RA1, RS1, and RG, explain the purpose of including the flowrates for the associated ventilation alignments, and describe what a decision maker would do if the flowrates could not be determined to be as listed.

PBNP RAI-2

Please address the following for proposed EALs RA1, RS1, and RG1:

a. Explain why the proposed radiation monitor setpoints are significantly higher than the current radiation monitor setpoints.

b. It was not clear to the NRC staff if PBNP could accurately assess offsite dose based on steam line radiation monitors [1(2)RE-231 and 1(2)RE-232] for the range of steam generator pressures that may exist following a wide range of events. Additionally, the atmospheric steam dump or steam generator safety valve may not be fully open, which for either of these conditions, could result in an unnecessary declaration of a General Emergency classification. Explain how the steam line radiation monitors

1(2)RE-231 and 1(2)RE-232 can provide an accurate indication of dose based on setpoint values alone or revise accordingly.

PBNP RAI-3

PBNP proposed EAL RA3.1 includes the Central Alarm Station (CAS) and the Secondary Alarm Station (SAS) as threshold criteria. Typically only one of these areas is required. If the CAS and SAS can both provide access to areas required to assure safe plant operations, explain why EAL does not provide an "AND" logic to the CAS and SAS, or select the primary station as the threshold value as provided in accordance with endorsed guidance.

PBNP RAI-4

Tables in proposed EALs RA3 and HA5 contain areas that do not appear to require entry to either maintain normal operation or to shut down and cooldown the plant (e.g., plants typically can transition from Mode 1 to Mode 3 without being required to enter the turbine building.) Additionally, plants can typically open the reactor trip breakers from the control room.

Please verify all the listed rooms or areas are restricted to only those areas that contain equipment needed for safe operation or safe shutdown / cool-down, or revise accordingly consistent with endorsed guidance.

PBNP RAI-5

Proposed EALs CU1, CA1, CS1, and CG1, affecting RCS inventory, include only Containment Sump "A" level rise as an indication of RCS leakage. Previously approved PBNP EALs also included Waste Holdup Tank level rise as an indication of RCS leakage.

Please explain the basis for deleting Waste Holdup Tank level rise as an indication of RCS leakage, or revise to include sump and or tank indications that would be indicative of a RCS leak.

PBNP RAI-6

The basis for proposed EALs CU2, SU1, and SA1 include the following:

> Unit 1(2) offsite power sources include:
> - 345 KVAC system supplying power to the 13.8 KVAC system and the 1 (2)X04 transformer
> - cross-tying with the opposite unit power supply
> - Power to the 1 (2)X -02 Auxiliary transformer through the 19 KV AC system and the 1(2)X-01 main step-up transformer
>
> The capability to cross-tie AC power takes credit for the redundant power source for this IC *[initiating condition]*. The inability to implement the cross-tie within 15 minutes warrants declaring a UE *[Notification of Unusual Event]*.

However, the staff could not determine which of the above sources of power could not be aligned within 15 minutes.

a. Provide an explanation as to the meaning of "cross-tying with the opposite unit power supply," include how cross-tying is supported by abnormal operating procedures (AOPs) or emergency operating procedures (EOPs).

b. Explain what is meant by "[t]he inability to implement the cross-tie within 15 minutes warrants declaring a UE." Address why it appears that declaring a UE for not being able to perform the cross tie within 15 minutes would be appropriate if you did not have one power supply already available to an emergency

bus, as this condition would warrant the declaration of an Alert or Site Area Emergency classification under EAL CA1 or SS1, respectively.

c. For EAL SA1, correct the UE reference in the following SA1 Basis statement (for an Alert declaration): "The inability to implement the cross-tie within 15 minutes warrants declaring a UE."

PBNP RAI-7

The basis for proposed EALs CA2, SS1, and SG1 include the following:

- Unit 1(2) offsite power sources include:
  - 345 KVAC 1(2)X-03 through the 13.8 KVAC system to the 1(2)X04 transformer
  - 345 KVAC through the 19 KVAC system to the aux transformer 1(2)X-02
- Unit 1 (2) onsite power sources consist of:
  - emergency diesel generators
  - gas turbine generator
  - unit main turbine generator
  - power supplied from the opposite unit

Considering that threshold values EALs CA2, SS1, and SG1 are a loss of all offsite and onsite AC power to the emergency buses, the above list of power sources is not required. Additionally, the inclusion of this table in the Basis discussion for EALs CA2, SS1, and SG1 could imply that a decision maker would not potentially make a declaration for a loss of all AC power because a power supply that is not included in the Basis discussion is providing power to the emergency bus.

Please explain why the list of power sources is provided in the Basis discussions for EALs CA2, SS1, and SG1, or revise according to remove list.

PBNP RAI-8

Description of communications systems appears to be inconsistent with that described in the PBNP Emergency Plan.

a. Explain the difference between a commercial phone system, general telephone lines and a private branch exchange (PBX).

b. Verify that communications systems listed in EALs are consistent with those provided in the PBNP Emergency Plan and emergency plan implementing procedures.

PBNP RAI-9

The proposed EALs CS1 and CG1 do not appear to have been developed in accordance with endorsed guidance. The current PBNP EALs CS1 and CG1 refer to reactor vessel level indications of 0% on LI-447LI-447A and 20 feet Reactor Vessel Level Indicating System (RVLIS) Narrow Range; however, these levels were not included in the proposed EAL scheme. Additionally, no level was provided that was 6 inches below the bottom ID of the reactor coolant system loop.

a. Provide further justification for the removal of an EAL that relies on the RVLIS, or revise accordingly. (Note: NEI 99-01, Revision 6, developer notes provide guidance for indication that is "approximately the top of active fuel.")

b. Provide Reactor Coolant System (RCS) level indication available near the bottom ID of the RCS loop, or explain why this is not addressed.

c. Explain why an indication that is normally available while in shutdown cooling was not used to provide a site-specific RCS level for CS1 or revise accordingly.

PBNP RAI-10

For the proposed fuel clad and RCS fission product barriers, RED entry conditions Critical Safety Function Status Tree (CSFST) for the heat sink are used as a threshold for a potential loss of either of these barriers. However, endorsed guidance states:

> In accordance with EOPs, there may be unusual accident conditions during which operators intentionally reduce the heat removal capability of the steam generators; during these conditions, classification using threshold is not warranted.

Please explain why the endorsed guidance concerning making classifications for heat sink conditions when operators intentionally reduce heat removal capability, in accordance with EOPs, is not included in the fission product barrier thresholds as this could result in an inaccurate EAL declaration, or revise accordingly.

PBNP RAI-11

The current PBNP Fission Product Barrier (FPB) EAL FC4 Potential Loss includes reactor vessel level indications by RVLIS. Please explain why these indications are not used in proposed FPB EAL FC2

PBNP RAI-12

Proposed EAL HU4.2 excludes the Containment from required verification of existence of a fire within 30 minutes of a single alarm in Modes 1 and 2. Please provide a justification that supports the HU4 note that excludes the Containment from consideration.

PBNP RAI-13

The basis for proposed EAL HS6 states that the Operations Manual assumes the earliest operator action will be taken from a remote shutdown location is 30 minutes. The endorsed guidance provides a typical time of 15 minutes or a time based on a site-specific fire response analysis. Please provide a site-specific analysis that supports a response time of 30 minutes, or revise accordingly in accordance with endorsed guidance.

PBNP RAI-14

EAL SU4 does not indicate whether or not the Technical Specification allowable limits, as described by the RU3 IC, include completing required actions within the completion times as provided by the Technical Specifications. Please clarify whether or not Technical Specification completion times should be considered when assessing RU3.

PBNP RAI-15

The final two paragraphs in Basis for proposed EAL SG1 appear to provide direction “to give the Emergency Director a reasonable idea of how quickly the need to declare a General Emergency.” In addition to inappropriately including potential procedural direction in the Basis discussion, this direction is not consistent with endorsed guidance.

Please remove the last two paragraphs from the SG1 basis discussion or provide justification that the wording, which is not consistent with endorsed guidance, could not influence and Emergency Director from prematurely declaring a General Emergency.

Please arrange a teleconference to discuss the above requested information with the NRC staff. Thanks

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