

NRR-PMDAPEm Resource

From: Tam, Peter
Sent: Tuesday, September 29, 2015 10:21 AM
To: michael.braden@duke-energy.com
Cc: Hon, Andrew; Johnson, Don; Helton, Shana
Subject: Draft RAI on proposed amendment re. EAL scheme change (TAC MF5766, MF5767)

Michael:

By letter dated January 30, 2015, Duke Energy Progress, Inc. (Duke Energy) requested approval for an amendment changing the emergency action level (EAL) scheme for Brunswick Steam Electric Plant (BSEP), Units 1 and 2, to one based upon Revision 6 to Nuclear Energy Institute (NEI) document NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors." We are continuing our review of the licensee's application. Meanwhile, we found that additional information, as described in the draft questions below, is needed to complete our review of the application. We propose to discuss each one of these draft questions, including the disposition of each draft question, with your staff in a conference call.

This email will be entered into ADAMS as an official agency record. Your January 30, 2015 application is a publicly available document; thus, we assume that the draft questions below, which are based on the submittal, contains no sensitive unclassified non-safeguards information (SUNSI). However, we will delay release of this email for 7 days. If we do not hear any request from you within 7 days to withhold any part of this email, we will release it for public disclosure.

Peter S. Tam

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RAI-01

Section 4.3, "Instrumentation Used for EALs," to NEI 99-01, Revision 6, states in part, "*Scheme developers should ensure that specific values used as EAL setpoints are within the calibrated range of the referenced instrumentation.*" Please confirm that all setpoints and indications used in the proposed EAL scheme are within the calibrated range(s) of the stated instrumentation and that the resolution of the instrumentation is appropriate for the setpoint/indication.

RAI-02

Section 2.1, "Background," and Section 4.0, "References," use ADAMS Accession Number ML110240324 as the document the NRC endorsed when in fact it is ML12326A805, which is part of the endorsement package contained within ML13091A209. Please revise to reference either one of these ADAMS numbers as the NRC endorsed EAL scheme development guidance

RAI-03

Section 2.5, "Technical Bases Information," states, "*A Plant-specific basis section that provides BNP [BSNP]-relevant information concerning the EAL. This is followed by a Generic basis section that provides a description of the rationale for the EAL as provided in NEI 99-01 Rev. 6.*" Due to the high probability that EAL decision-makers will be confused between these two sections when the information appears to be inconsistent, please explain the basis for two sections rather than one basis section that is specific to the plant, or revise accordingly.

RAI-04

Section 5.0, "Definitions," does not include definitions for the following. Please incorporate these definitions into the document or provide justification for not including definitions consistent with NRC endorsed guidance:

- Alert,
- Notification of Unusual Event,
- Site Area Emergency,
- General Emergency,
- Emergency Action Level,
- Emergency Classification Level,
- Fission Product Barrier Threshold, and
- Initiating Condition.

RAI-05

For the following EALs, please explain why the listed NOTES were included, or revise accordingly.

- RA1.2 – NOTE-3
- RS1.2 – NOTE-3
- RG1.2 – NOTE-3

RAI-06

For EAL RA2.2, please explain why the information in the NEI 99-01 Basis section does not contain all of the actual information from NEI 99-01 as it is germane to this particular EAL, or revise accordingly.

RAI-07

For EAL RS2.1, please explain why the escalation path apparently incorrectly lists EAL AG1 instead of EAL RG1, or revise accordingly.

RAI-08

For EALs CU2.1, SA1.1 and SU1.1, please add a list of the AC power sources to the EAL to ensure consistent and timely recognition of the event, or provide justification for not including this list. [NOTE: It is not necessary to have this list for EALs CA2.1, SG1.1, SG1.2, and SS1.1 as these EALs are concerned with a loss of all AC power sources.]

RAI-09

For EAL CG1.2 and the Fission Barrier Matrix, please confirm that the "Max Normal" and "Max Safe" values can be promptly obtained from within the Control Room, or revise accordingly to support timely event declaration.

RAI-10

For EALs CU4.1, SG1.2 and SS2.1, please explain the impact on timely event declaration, since the BNP Basis states that battery voltage must be read locally.

RAI-11

For EALs CU5.1 and SU7.1, please explain how the Corporate Telephone Communications System can work for in-plant/onsite communications, or revise accordingly.

RAI-12

For EAL HU2.1, please provide additional details on the process used to determine if the seismic activity exceeded the Operating Basis Earthquake (OBE) threshold and availability to support timely event declaration. If the OBE threshold is not recognized, in a timely fashion, from indications in or near the Control Room, then explain why the alternative EAL was not developed in accordance with NEI 99-01 Revision 6, or revise accordingly.

RAI-13

For EAL HU3.2, the proposed basis information includes the statement: "*Refer to Updated FSAR section 3.4.2, Protection from Internal Flooding, to identify susceptible internal flooding areas.*" If the intent of this statement

is to limit the areas of consideration, then provide a list of areas in the EAL for the staff to review, or otherwise explain the purpose for this statement.

RAI-14

For EAL HU3.4, please explain where the BSNP Basis information related to when the 15-minute clock starts came from.

RAI-15

For EALs HU4.1 and HU4.2, the areas listed in Table H-1 seem to be vague or too all-encompassing. Please explain if the listed areas are all the areas that contain equipment needed for safe operation, safe shutdown and safe cool-down, and if these areas can be fine-tuned to limit consideration for these EALs.

RAI-16

For EAL HU4.2, please explain why all the required information related to Appendix R was not carried over into this EAL, or revise accordingly.

RAI-17

For EALs HU4.2 and HU4.4, please confirm that the Independent Spent Fuel Storage Installation (ISFSI) would be an area applicable to these EALs, or revise accordingly.

RAI-18

For EAL HS6.1, please explain why reactivity control is not required at the Remote Shutdown Panel, or revise accordingly. In addition, please consider incorporating operating mode specificity to the key safety functions listed in the EAL.

RAI-19

For EAL SU4.1, please explain the intent of the 15-minute qualifier, and basis for consideration in this EAL.

RAI-20

For EAL SU4.2, please explain why the timing note is not part of this EAL, or revise accordingly.

RAI-21

For EALs SU6.1, SU6.2, SA6.1 and SS6.1, please explain why the power level (

RAI-22

Category E – Independent Spent Fuel Storage Installation (ISFSI) guidance: The statement: *“Formal offsite planning is not required because the postulated worst-case accident involving an ISFSI has insignificant consequences to the public health and safety,”* is not applicable to this proposed EAL scheme. Please remove, or provide further justification for inclusion.

In addition, please incorporate guidance related to the fact that EALs HU1 and HA1 are also considered for events that occur at the ISFSI.

RAI-23

Fission Product Barrier Matrix: The cited NEI 99-01 Basis sections for several of the Fission Product Barrier criteria are not from NRC-endorsed NEI 99-01, Revision 6. Please either revise to what has actually been endorsed, or (depending on respond to RAI-03) consider unifying the basis sections into one.

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Mail Envelope Properties (Peter.Tam@nrc.gov20150929102100)

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