UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 15, 2011

Vice President, Operations
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3 - REQUEST FOR ADDITIONAL INFORMATION REGARDING APPLICATION FOR EMERGENCY ACTION LEVEL CHANGES (TAC NOS. ME6392 AND ME6393)

Dear Sir or Madam:

By letter dated May 27, 2011, Entergy Nuclear Operations, Inc. (Entergy or the licensee) requested prior approval of a revised emergency action level (EAL) scheme for Indian Point Nuclear Generating Unit Nos. 2 and 3 which would revise the plant EALs to conform to those in Nuclear Energy Institute (NEI) document NEI 99-01, Revision 5, "Methodology for Development of Emergency Action Levels."

The Nuclear Regulatory Commission staff is reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). On December 8, 2011, the Entergy staff indicated that a response to the RAI would be provided within 45 days of the date of this letter.

Please contact me at (301) 415-2901 if you have any questions on this issue.

Sincerely,

John P. Boska

John P. Boska, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

Enclosure:
RAI

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3

EMERGENCY ACTION LEVEL SCHEME CHANGE TO NEI 99-01, REVISION 5

DOCKET NOS. 50-247 AND 50-286

By letter dated May 27, 2011, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11158A080 [package]) Entergy Nuclear Operations, Inc. (Entergy or the licensee) requested prior approval of a revised emergency action level (EAL) scheme for the Indian Point Nuclear Generating Unit Nos. 2 and 3.

Entergy's letter stated that the current Entergy EAL scheme is based on generic development guidance from Nuclear Utilities Management Council (NUMARC) document entitled NESP-007, "Methodology for Development of Emergency Action Levels," Revision 2, January 1992, (ADAMS Accession No. ML041120174). Since 1992, numerous enhancements and clarification efforts have been made to the generic EAL development guidance resulting in the latest document, Nuclear Energy Institute (NEI) 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," (ADAMS Accession No. ML080450149), which was found to be acceptable for use as generic EAL development guidance by the Nuclear Regulatory Commission (NRC) staff by letter dated February 22, 2008 (ADAMS Accession No. ML080430535).

The proposed EAL scheme was developed using the generic development guidance from NEI 99-01, Revision 5, with numerous differences and deviations based upon design criteria applicable to the site, as well as licensee preferences for terminology, format, and other licensee-desired modifications to the generic EAL scheme development guidance provided in NEI 99-01, Revision 5.

Attached are requests for additional information (RAIs) to facilitate the technical review being conducted by the NRC staff.

1. Section 4.0: The definition of the terms CONFINEMENT BOUNDARY and VITAL AREA reflect wording from the generic EAL development guidance, rather than defined as used by Entergy. Please provide further justification for use of generic definitions or revised accordingly to reflect Entergy-specific use.

2. EALs AA1.1 and AA1.2: There is a discrepancy between the Initiating Condition (IC) wording, "...200 times...," and the actual EALs as they are not 100 times the value for AU1.1. While the technical basis supports these values, the discrepancy between the IC and the EAL could cause confusion. In addition, the Entergy Basis information for AA1.2 incorrectly describes the magnitude difference as being a factor of 100. Please provide further justification for the discrepancy or revise accordingly to address this inconsistency.

3. EALs AA1.1 and AA1.2: Each EAL refers to the exact same table, for the exact same time duration, and the same note being applicable, with the only difference being the incorporation of the basis information for each EAL. Please clarify rationale for not combining

these EALs to aid in reducing reader burden and possibly improve the timeliness of the declaration.

4. EAL AA1.2: Please explain how "off-scale" will be differentiated from instrument error and how timely this determination would be, or revise accordingly to use a value that is within the calibrated range of the instrumentation.

5. EALs AS1.3 and AG1.3: Please clarify why this timing note has not been included in these EALs, or revise accordingly to include as applicable.

6. EAL AA3.1: The basis states, "There are no permanently installed Control Room or CAS *[Central Alarm Station]* area radiation monitors that may be used to assess this EAL threshold." Please discuss why the Control Room does not refer to radiation monitoring as described in the Entergy Final Safety Analysis Reports. If this is an error, please document in your response to this RAI that you reviewed and confirmed that no similar errors exist in this submittal.

7. EALs CU1.1, SA1.1, and SS1.1: The IC states the timing to be "greater than 15 minutes" when the endorsed guidance provides that it is greater than or equal to 15 minutes. This information is in the Entergy Basis as well, but not in the actual EAL. Please provide a technical basis to justify this deviation, or revise accordingly consistent with endorsed guidance.

8. EALs CU1.1, CA1.1, SU1.1, SA1.1, SS1.1, and SG1.1: Please explain if all the power sources listed in Table C-4 are controlled and maintained in accordance with Entergy Technical Specifications.

9. EALs CU2.3, CA2.1, CS2.3, and CG2.2: Please explain why you stated "Visual observation of RCS leakage" in Table C-1 (Sumps/Tanks) as this is neither a sump nor a tank. In addition, for EAL CU2.3, the NEI 99-01 Basis information from the generic development guidance has a paragraph related to the 15-minute restoration timing. The format of this EAL was revised from the generic EAL development guidance such that the timing statement is not applicable to this particular EAL. Please provide a technical basis to justify this difference, or revise accordingly consistent with endorsed guidance.

10. EAL CG2.2: This is an inconsistency with the generic EAL development guidance for CG1 (NEI) and CS1 (NEI). The CG1 (NEI) wording has the timing note at the end of the EAL instead of after the wording "...be monitored for 30 minutes or longer..." as provided in CS1 (NEI). Please provide justification for inconsistency or revise the EAL to reflect that the inability to monitor reactor vessel level for ≥ 30 minutes with core uncovery indicated by any of the bulleted items.

11. EAL CU3.1: Please provide a technical basis to justify explain why "...due to loss of decay heat removal capability" was added to this EAL, or revise accordingly consistent with endorsed guidance.

12. EALs CU4.1 and SU4.2: Please explain how the "Radiological Emergency Communication System" is acceptable for contacting the NRC in the required timeframe, or revise the table accordingly.

13. EAL SU4.2: Entergy Basis for Unit 3 has information related to sound powered phones; however, sound powered phones are not on the list. Please revise accordingly to address inconsistency if use of sound powered phones is applicable.

14. EALs HU1.1 and HA1.1: Please discuss in detail how the seismic event is captured. Specifically, the staff needs to understand: how seismic events are monitored; the location of the monitor/annunciators; if special qualifications are needed to determine the seismic level; and if Entergy maintains the ability to determine seismic EALs 24 hours per day, 7 days per week.

15. EALs HU1.2 and HA1.2: Please explain if 90 mph is within the calibrated range of the instrumentation available in the Control Room, or revise accordingly.

16. EALs HA1.2, HA1.5, HU2.1, and HA2.1: Table H-1 (Safe Shutdown Areas) lists significantly more areas than other licensees EAL schemes of similar design. Please provide justification for these areas in relation to plants of similar design, or revise accordingly if the areas are determined not appropriate for this particular EAL based on this re-evaluation.

17. EAL HA1.3: Table H-1 (Safe Shutdown Areas) lists significantly more areas than other licensees EAL schemes of similar design. Please provide justification for these areas in relation to plants of similar design, or revise accordingly if the areas are determined not appropriate for this particular EAL based on this re-evaluation. The areas must be susceptible to vehicle crashes.

18. EAL HA1.4: Table H-1 (Safe Shutdown Areas) lists significantly more areas than other licensees EAL schemes of similar design. Please provide justification for these areas in relation to plants of similar design, or revise accordingly if the areas are determined not appropriate for this particular EAL based on this re-evaluation. The areas must be susceptible to turbine failure-generated projectiles.

19. EAL HA3.1: The intent of this EAL is to declare an Alert when access to an area is impeded due to a gaseous event. The areas of concern are limited to those that must be entered for safe operation or safe shutdown/cooldown. If access to the area is unnecessary to operate said equipment, then the table does not need the area listed. Please confirm that the areas listed in Table H-1 (Safe Shutdown Areas) are the areas Entergy will use for this particular EAL.

20. EAL SA2.1: Please discuss rationale for not listing the allowable manual trip actions taken at the reactor control console to the actual EAL, or revise accordingly.

21. EALs SU4.1, SA4.1, and SS4.1: The endorsed guidance provides more information for development of these EALs, such as to what annunciators and indicators are applicable (for example, panel numbers, specific instruments, etc.). Please provide a technical basis to justify this deviation, or revise accordingly consistent with endorsed guidance.

22. Category E front page: the wording states that EAL HU4.1 will bind security events at the independent spent fuel storage installation (ISFSI) when in fact it is EAL HU4.1 and EAL HA4.1. Please provide a technical basis to justify this difference, or revise accordingly consistent with endorsed guidance.

23. Category F front page: The operating modes statement does not include Power Operations. Please provide a technical basis to justify this difference, or revise accordingly consistent with endorsed guidance.

24. Fission Barrier Matrix:
a. Fuel Cladding (FC) PL 1 and Reactor Coolant System (RCS) PL 1 has the wording added "...and heat sink required...." Please provide a technical basis to justify this difference, or revise accordingly consistent with endorsed guidance.
b. Please explain how "off-scale high reading" will be differentiated from instrument error and how determination could be made in a timely manner for RCS L1.
c. RCS L1 has the wording added "...due to RCS leakage...." Please provide a technical basis to justify this difference, or revise accordingly consistent with endorsed guidance.
d. The timing statement for Containment (CNMT) PL 2 and PL 3 has information provided to reflect that the time starts after restoration procedure entry. Please provide a technical basis to justify this difference, or revise accordingly consistent with endorsed guidance.

December 15, 2011

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/ra/

John P. Boska, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
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Docket Nos. 50-247 and 50-286
Enclosure:
RAI
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ADAMS ACCESSION NO.: ML113480087 *Via email

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NAME	JBoska	SLittle	JAnderson	NSalgado
DATE	12/14/11	12/14/11	11/18/11	12/15/11

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