

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

March 17, 2015

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 NO. 2 - REQUEST FOR ADDITIONAL INFORMATION REGARDING EXTENSION OF THE CONTAINMENT TYPE A LEAK RATE TESTING FREQUENCY TO 15 YEARS (TAC NO. MF5382)

Dear Sir or Madam:

By letter dated December 9, 2014, Entergy Nuclear Operations, Inc., the licensee, submitted a license amendment request to revise Technical Specification 5.5.14, "Containment Leakage Rate Testing Program," to extend the frequency of the Type A or Integrated Leak Rate Test from once every 10 years to once every 15 years on a permanent basis.

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). Based on our discussions we understand that a response to the RAI will be provided within 30 days of the date of this letter.

Please contact me at (301) 415-1364 if you have any questions on this issue.

Sincerely,

Doyle V Salet

Douglas V. Pickett, Senior Project Manager Plant Licensing Branch I-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-247

Enclosure: Request for Additional Information

cc w/encl: Distribution via Listserv

# REQUEST FOR ADDITIONAL INFORMATION

# EXTENSION OF CONTAIMENT TYPE A TEST TO 15 YEARS

## ENTERGY NUCLEAR OPERATIONS, INC.

## INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

# DOCKET NO. 50-247

### Mechanical and Civil Engineering Branch (EMCB)

### EMCB RAI-1

Table 4.4.2 in Section 4.4 of Reference 1 lists the planned IWL inspections of exterior surfaces of the containment. The table lists an IWL examination (June 2005) prior to the last Type A integrated leak rate test (ILRT) (April 2006), and examinations in June of 2010, 2015, and 2020. The associated text in Section 4.4 states that the next IWL examination is scheduled for 2016, as opposed to 2015, and then again prior to the date for the next ILRT in refueling outage 2R24. Based on the table and the text, it appears there will be two IWL examinations between ILRT tests plus the examination conducted prior to the test.

Explain how this meets the requirements in Section 9.2.3.2 of Reference 2, which states that a general visual examination of accessible exterior surfaces of the containment "must be conducted prior to each Type A test and during at least three other outages before the next Type A test if the interval for the Type A test has been extended to 15 years."

#### EMCB RAI-2

Section 4.4.2 of Reference 1 provides a high-level summary of the recent American Society of Mechanical Engineers Boiler and Pressure Vessel (ASME) Code, Section XI Subsection IWE inspection results for 2012 and notes that water seepage was observed adjacent to electrical penetration #69. The summary indicates that no adverse effects were noted on the penetration; however, no discussion is provided on the effects on the steel containment liner.

Please state whether or not the water leakage impacted the containment liner and if so how the issue was resolved.

### EMCB RAI-3

Table 4.1-1 of Reference 1 notes that Indian Point Nuclear Generating Unit 2 (IP2) will explore/consider inaccessible degradation-susceptible areas that can be inspected using viable, commercially available NDE methods. Section 4.4.1 of Reference 1 notes that portions of the containment liner are covered by stainless steel insulation panels. Section 5.1.7 of the IP2 Final Safety Analysis Report (FSAR) notes that approximately the first 43 ft. of the liner is covered by insulation. The FSAR further states that the insulation has been designed to be removable by section for inspection of the liner. In order for the U.S. Nuclear Regulatory Commission (NRC) staff to assess the maintenance of inaccessible areas of the containment, please provide the following:

- 1. A summary of the considerations taken to date regarding inaccessible portions of the containment (both the concrete structure and the liner) and how these considerations were documented. Also explain what will lead to future considerations and how they will be documented.
- 2. An explanation of how it has been determined that the containment liner behind the insulation is acceptable, and how the IWE inspection program will continue to ensure the insulated portions of the liner remain acceptable. If the liner behind the insulation will be inspected based on a sampling plan, include a technical justification for the adequacy of the sample plan. Include a specific discussion of the containment liner-concrete floor interface in the explanation.

#### EMCB RAI-4

Section 4.4.1 of Reference 1 provides a high-level summary of the recent American Society of Mechanical Engineers Boiler and Pressure Vessel (ASME) Code, Section XI Subsection IWE inspection results for 2008, 2012, and 2014. In order for the NRC staff to assess the proper and effective implementation of the ASME Section XI, Subsection IWE containment inspection program, please provide the following:

- A discussion of instances where existence of, or potential for, degraded conditions in inaccessible areas of the concrete containment structure and steel liner were identified and evaluated based on conditions found in accessible areas, as required by Title 10 of the Code of Federal Regulations (10 CFR), Part 50, Paragraph 55a(b)(2)(ix)(A). If there were any instances of such conditions, discuss the findings and corrective actions taken to disposition the findings.
- 2. A discussion of the leak chase channel system at IP2 and any relevant operating experience, inspection results, or corrective actions taken as a result of NRC Information Notice 2014-07, "Degradation of Leak-Chase Channel Systems for Floor Welds of Metal Containment Shell and Concrete Containment Metallic Liner." If the accessible portions of the leak chase channel system have not been inspected as part of the IWE Program please provide a technical justification for not inspecting the system.

### EMCB RAI-5

Section 4.4.2 of Reference 1 provides a high-level summary of the recent ASME Code, Section XI Subsection IWL inspection results for 2010. The summary notes that 125 recordable indications were identified during the inspection and none of the indications represented structural concerns. In order for the NRC staff to assess the proper and effective implementation of the ASME Section XI, Subsection IWL containment inspection program, please provide the following:

- 1. A quantitative description of a representative sample of each type of indication noted during the 2010 ASME Section XI, Subsection IWL inspection.
- 2. An explanation of the criteria used to determine an indication was acceptable and did not represent a structural concern.

### References:

- Coyle, Lawrence, Entergy Nuclear Operations, Inc., letter to U.S. Nuclear Regulatory Commission, December 9, 2014, Letter No. NL-14-128, "Proposed License Amendment Regarding Extending the Containment Type A Leak Rate Testing Frequency to 15 Years," (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14353A015).
- Nuclear Energy Institute, Topical Report NEI 94-01, Revision 2-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," October 2008 (ADAMS Accession No. ML100620847).

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Sincerely, /**RA**/ Douglas V. Pickett, Senior Project Manager Plant Licensing Branch I-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

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