

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 28, 2009

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 RESPONSE TO GENERIC

LETTER 2008-01 (TAC NOS. MD7836 AND MD7837)

Dear Sir or Madam:

By letters dated April 11, 2008, October 9, 2008, and July 6, 2009, Entergy Nuclear Operations, Inc. (Entergy), submitted responses to the Nuclear Regulatory Commission (NRC) for NRC Generic Letter (GL) 2008-01, "Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" for Indian Point Nuclear Generating Unit Nos. 2 and 3.

The Nuclear Regulatory Commission staff is reviewing the submittals 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 September 24, 2009, 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, 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

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# REQUEST FOR ADDITIONAL INFORMATION

#### REGARDING GENERIC LETTER 2008-01

#### ENTERGY NUCLEAR OPERATIONS, INC.

#### INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3

## DOCKET NOS. 50-247 AND 50-286

By letters dated April 11, 2008, October 9, 2008, and July 6, 2009, Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML081070251, ML082890536, and ML091950328, Entergy Nuclear Operations, Inc. (Entergy or the licensee), submitted responses to the Nuclear Regulatory Commission (NRC) for NRC Generic Letter (GL) 2008-01, "Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" for Indian Point Nuclear Generating Unit Nos. 2 and 3. Guidance on NRC staff expectations is provided by Reference 1 which is generally consistent with Nuclear Energy Institute (NEI) guidance provided to the industry in Reference 2 as clarified in later NEI communications. The NRC staff recommends that the licensee consult Reference 1 when responding to the following RAIs:

- 1. "The Recirc subsystem need not be monitored... The pumps are started only after the minimum submergence requirements in the sump are satisfied." (Reference 4). Clarify the minimum submergence requirements and discuss how the requirements are obtained.
- 2. In Reference 4, the licensee stated that "all segments were water solid except one location in Unit 2 SI system" as the result of the conducted walkdowns. Discuss follow-up actions, such as entry into the Corrective Action Program (CAP), identifying the source of the void, quantifying the size of the void, trending the volume of the void for the segment of piping, and trending the parameters associated with the source of the void.
- 3. Clarify the meaning of "accessible" and "inaccessible" as used in References 4 and 5. Include discussion of piping within containment; piping that requires scaffolding to reach; and piping in posted radiation areas.
- 4. In Reference 4, the licensee states that "IPEC [Indian Point Energy Center] procedures and design features provide assurance that the volume of gas in the pump suction piping for the subject systems is limited such that pump gas ingestion is within the above PWROG [Pressurized Water Reactor Owners Group] program established interim criteria." Clarify the procedures and design features and discuss how they are used to determine gas volume. Compare the PWROG interim criteria to Reference 6 and justify the differences.
- 5. In Reference 4, the licensee states that "sections of piping evaluated to be acceptable with the voids within the sections" were excluded from the walkdown. Justify the reason for exclusion and discuss the criteria used to determine acceptability. Also, quantify the size of the voids and trending the volume of said voids.

- 6. The licensee states in Reference 4 that "locations that could not be effectively vented with existing system venting configurations were identified for further evaluation." Clarify how many segments of piping could not be vented effectively and the locations of the segments. Discuss the process and schedule to further evaluate these segments.
- 7. Training was not identified in the GL (Reference 3) but is considered to be a necessary part of applying procedures and other activities when addressing the issues identified in the GL as the licensee has recognized. Provide a brief description of training.

#### REFERENCES

- 1. Ruland, William H., "Preliminary Assessment of Responses to Generic Letter 2008-01, 'Managing Gas Accumulation in emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems,' and Future NRC Staff Review Plans," NRC letter to James H. Riley, Nuclear Energy Institute, ML091390637, May 28, 2009.
- 2. Riley, James H., "Generic Letter (GL) 2008-01, 'Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Contain Spray Systems' Evaluation and 3 Month Response Template," Letter to Administrative Points of Contact from Director, Engineering, Nuclear Generation Division, Nuclear Energy Institute, Enclosure 2, "Generic Letter 2008-01 Response Guidance," March 20, 2008.
- Case, Michael J., "NRC Generic Letter 2008-01: Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," Letter from Director, Division of Policy and Rulemaking, Office of Nuclear Reactor Regulation, NRC, ML072910759, January 11, 2008.
- Pollock, J. E., "Indian Point Entergy Center, Units 2 and 3, Docket No. 50-247, 50-286, Nine-Month Response to NRC Generic Letter 2008-01," Letter to Document Control Desk, NRC, from Site Vice President, Indian Point Energy Center, ML082890536, October 9, 2008.
- 5. Pollock, J. E., "Indian Point Entergy Center, Unit 3, Docket No. 50-286, Nine-Month Supplemental (Post Outage) Response to Generic Letter 2008-01," Letter to Document Control Desk, NRC, from Site Vice President, Indian Point Energy Center, ML091950328, July 6, 2009.
- 6. "Revision 2 to NRC Staff Criteria for Gas Movement in Suction Lines and Pump Response to Gas," ML090900136, March 26, 2009.

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/ra/

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

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RAI

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ADAMS ACCESSION NO.: ML092680124

\*See memo dated 9/21/09

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