October 14, 2005

Mr. Michael R. Kansler
President
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 2 - REQUEST FOR ADDITIONAL INFORMATION REGARDING AUTHORIZATION TO EXTEND THE THIRD 10-YEAR INSERVICE INSPECTION (ISI) INTERVAL FOR REACTOR VESSEL WELD EXAMINATION (TAC NO. MC7306)

Dear Mr. Kansler:

On June 8, 2005, Entergy Nuclear Operations, Inc. (Entergy), submitted a relief request for Indian Point Nuclear Generating Unit No. 2 which requested authorization to extend the third 10-year ISI interval for reactor pressure vessel weld examinations.

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). During a telephone call on October 5, 2005, the Entergy staff indicated that a response to the RAI would be provided within 30 days of receipt of this letter.

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

Sincerely,

/RA/

John P. Boska, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-247

Enclosure: RAI

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

REGARDING REQUEST FOR AUTHORIZATION TO EXTEND THE THIRD 10-YEAR

INSERVICE INSPECTION (ISI) INTERVAL FOR REACTOR VESSEL WELD EXAMINATION

ENTERGY NUCLEAR OPERATIONS, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

DOCKET NO. 50-247

In a letter dated June 8, 2005, Entergy Nuclear Operations, Inc. (Entergy), submitted a relief request for authorization to extend the third 10-year ISI interval for reactor pressure vessel weld examinations for Indian Point Nuclear Generating Unit No. 2 (IP2). The Nuclear Regulatory Commission (NRC) staff is reviewing the submittal and has the following question:

You stated that the technical justification for your request was consistent with the guidance provided in a January 27, 2005, letter from the NRC to Westinghouse Electric Company (Summary of Teleconference with the Westinghouse Owners Group Regarding Potential One Cycle Relief of Reactor Pressure Vessel Shell Weld Inspections at Pressurized-Water Reactors Related to WCAP-16168-NP, "Risk Informed Extension of Reactor Vessel In-Service Inspection Intervals"). Item number six of this guidance is repeated below:

> The licensee could then provide a discussion of how, based on its plant operational experience, fleet-wide operational experience, and plant characteristics, the likelihood of an event (in particular, a significant pressurized thermal shock event) over the next operating cycle which could challenge the integrity of the reactor vessel pressure vessel (RPV), if a flaw was present, is very low.

Section 5.5 of your submittal includes general statements indicating that the likelihood of pressurized thermal shock (PTS) events is small and briefly describes an Entergy operating procedure that provides actions to avoid, or limit thermal shock to the reactor pressure vessel.

The NRC staff is re-evaluating the risk from PTS events in a study done to develop a technical basis for revising Title 10 of the *Code of Federal Regulations*, Part 50, Section 61 (10 CFR 50.61). Although the NRC staff has not yet completed its evaluation, the current results indicate that the following three types of accident sequences cause the more severe PTS events and thereby dominate the risk. Please describe the characteristics of your plant (design and operating procedures) that provide assurance that the likelihood of a severe PTS event over the next operating cycle which could challenge the integrity of the RPV, if a flaw was present, is very low.

Enclosure

Sequence 1:
Any transient with reactor trip followed by one stuck-open pressurizer safety relief valve that re-closes after about 1 hour. Severe PTS events also require the failure to properly control high-head injection.

Sequence 2:
Large loss of secondary steam from steam line break or stuck-open atmospheric dump valves. Severe PTS events also require the failure to properly control auxiliary feedwater flow rate and destination (e.g., away from affected steam generators) and failure to properly control high pressure injection.

Sequence 3:
Four to nine-inch loss-of-coolant accidents. Severity of PTS event depends on break location (worst location appears to be in the pressurizer surge line) and primary injection systems flow rate and water temperature.

cc:

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