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

May 13, 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. 1 AND 2 - REQUEST FOR ADDITIONAL INFORMATION REGARDING DECOMMISSIONING COST ESTIMATE AND IRRADIATED FUEL MANAGEMENT PROGRAM (TAC NOS. ME0020 AND ME0021)

Dear Sir or Madam:

In a letter dated October 23, 2008, Agencywide Documents Access and Management System (ADAMS) Accession No. ML083040378, Entergy Nuclear Operations, Inc. (Entergy), submitted the preliminary decommissioning cost estimate and the irradiated fuel management program for Indian Point Nuclear Generating Unit Nos. 1 and 2 (IP1 and IP2) in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Sections 50.75(f)(3) and 50.54(bb).

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). The Entergy staff indicated that a response to the RAI would be provided within 60 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. 50-003 and 50-247

Enclosure:
RAI

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

REGARDING DECOMMISSIONING COST ESTIMATE AND

IRRADIATED FUEL MANAGEMENT PROGRAM

ENTERGY NUCLEAR OPERATIONS, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NOS. 1 AND 2

DOCKET NOS. 50-003 AND 50-247

In a letter dated October 23, 2008, Agencywide Documents Access and Management System (ADAMS) Accession No. ML083040378, Entergy Nuclear Operations, Inc. (Entergy), submitted the preliminary decommissioning cost estimate and the irradiated fuel management program for Indian Point Nuclear Generating Unit Nos. 1 and 2 (IP1 and IP2) in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Sections 50.75(f)(3) and 50.54(bb). The Nuclear Regulatory Commission (NRC) staff has determined the following information is needed in order to complete its review.

RAI No. 1: Attachment 1, Section 5. Financial Assurance

In the submittal, Entergy referenced Table 7, "Funding Requirements for License Termination," and stated that a 2 percent real rate of return was applied to the IP2 decommissioning trust fund (DTF) balance of $347.2 million (balance as of December 31, 2007), and that Entergy would apply a portion of the balance from the DTF to support spent fuel management costs. Entergy acknowledged that an exemption pursuant to 10 CFR 50.12 is required before the DTF could be applied to non-decommissioning costs such as spent fuel management costs. Based on Entergy's approach regarding spent fuel management costs, the NRC staff applied a 2 percent real rate of return to the DTF, and deducted the expenses identified in Table 3, "Indian Point Nuclear Generating Unit 2, Schedule of Annual Expenditures, Total Decommissioning Cost." The NRC staff's analysis indicated the DTF balance was short of the necessary funds to support both spent fuel management and decommissioning costs, and the NRC staff was not able to reconcile the difference between the NRC staff's and Entergy's analyses. The NRC staff requests that Entergy reconcile the difference between the NRC staff's analysis and Entergy's analysis. In addition, the NRC staff requests that Entergy identify the mechanism that Entergy proposes to use to make up the shortfall in funding for IP2, if necessary.

RAI No. 2: Attachment 1, Section 5. Financial Assurance

The NRC staff request that Entergy address the impacts on its analysis based on the apparent $25.81 million decrease in the DTF balance to $321.39 million for IP2 as of December 31, 2008. The updated balance is identified in Entergy's letter dated March 30, 2009, "Status of Decommissioning Funding for Plants Operated by Entergy Nuclear Operations, Inc.," ADAMS Accession No. ML090920576. In the March 31, 2009, submittal Entergy stated that the $321.39 million included the provisional trust balance of $29.39 million. Entergy's response should consider that if there is a change in the DTF balance that materially and significantly impacts a

licensee's cost and funding analysis, the licensee may be under an obligation, pursuant to 10 CFR 50.9, to update any changes in projected cost, or available funds.

RAI No. 3: Section 1.7.9., Site Contamination (Document E11-1583-003)

This submittal indicated that IP2 has approximately 379,000 cubic feet of contaminated soil; however, the cost to remediate or remove the contaminated soil was not identified in this section of the document. The NRC staff requests that Entergy identify what is the cost to remediate or dispose of the approximately 379,000 cubic feet of contaminated soil. In this section, Entergy indicated that for IP2, the substructures of the discharge canal, fuel storage building and part of the turbine building would have to be removed to address the subsurface soil contamination. Also in this section of the document, Entergy did not identify the additional cost associated with demolition of these structures. The NRC staff requests that Entergy identify the additional cost associated with the demolition of these structures. If these costs are provided in supporting documents, please provide the reference that addresses the total cost of the contaminated soil removal and disposal cost, including demolition costs. The reference should also include a discussion of the sequence involved in this process. The NRC staff requests that the licensee provide a detailed discussion that addresses the cleanup activities and supporting costs in detail.

RAI No. 4: Section 1.7.8., Site Contamination (Document E11-1583-004)

This submittal indicated that IP1 has an estimated 1.26 million cubic feet of contaminated soil; however, the cost to remediate or remove the contaminated soil was not identified in this section of the document. The NRC staff requests that Entergy identify the cost to remediate or dispose of the approximately 1.26 million cubic feet of contaminated soil. Also in this section, Entergy indicated that for IP1, the substructures of the reactor containment, H. T. switchgear, underground utility tunnel, chemical systems, fuel handling, nuclear services, superheater and the turbine building would have to be removed to address the subsurface soil contamination. Table 1 listed the volumes of radioactive waste, but Table 1 did not list the disposal costs associated with the waste volumes. In addition, in this section, Entergy did not identify the additional cost associated with demolition of these structures. The NRC staff requests that Entergy identify the additional cost associated with the demolition and disposal of these structures. If these costs are provided in supporting documents, please provide the reference that addresses the total cost of the contaminated soil removal and disposal, including the building demolition, and transportation. The reference should also include a discussion of the sequence involved in this process. The NRC staff requests that Entergy provide a detailed discussion that addresses the cleanup activities and supporting costs in detail.

RAI No. 5: Attachment 1, Table 8 Decommissioning Funding Plan

In its submittal, Entergy references Table 8, "Decommissioning Funding Plan, IP1 Coordinated with IP2, 2013 Shutdown and 60-year SAFSTOR." The NRC staff applied a 2 percent real rate of return to the DTF balance of $218.8 million for IP1 as of December 31, 2008, and the DTF balance for IP2 of $321.39 million as of December 31, 2008, for a total DTF balance of $541.4 million as of December 31, 2008, and deducted the expenses identified in Column F of Table 8 since Entergy stated that it would use the DTF balances to support the spent fuel management costs. Again, Entergy acknowledged that an exemption pursuant to 10 CFR 50.12 is required before the DTF could be applied to non-radiological costs. The NRC staff's analysis indicated

decommissioning costs, and the NRC staff was not able reconcile the difference between the NRC staff's and Entergy's analyses. The NRC staff's analysis was based on the DTF balances listed in Entergy's submittal dated March 30, 2009. The NRC staff requests that Entergy reconcile the difference between the NRC staff's analysis and Entergy's analysis. In addition, the NRC staff requests that Entergy identify the mechanism that Entergy proposes to make up the shortfall in funding for IP1, if necessary.

RAI No. 6: Preliminary Decommissioning Cost Analysis for IP1

In its submittal, Entergy selected the SAFSTOR option for IP2 and stated that IP1 and IP2 would remain in SAFSTOR for up to 60 years and that the decommissioning of IP1 would take place at the same time as the decommissioning of IP2. Entergy stated it would complete the decommissioning of IP1 and IP2 within a 60-year SAFSTOR period following the expiration of IP2's operation license in 2013. In as much as the NRC issued an Order on June 19, 1980, revoking the authority of the Consolidated Edison Company, the licensee at that time, to operate IP1, the NRC staff request that Entergy explain how it proposes to address, for IP1, the requirement in 10 CFR 50.82(a)(3) that decommissioning be completed within 60 years of permanent cessation of operations.

May 13,2009

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Sincerely,

/RA/

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

Docket Nos. 50-003 and 50-247
Enclosure:
RAI
cc w/encl: Distribution via Listserv

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ADAMS ACCESSION NO.: ML091120544 *See memo dated 4/20/09

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