February 8, 2002

Mr. Michael Kansler
Senior Vice President and
Chief Operating Officer
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - REQUEST FOR ADDITIONAL INFORMATION RE: PROPOSED TECHNICAL SPECIFICATION AMENDMENT FOR LABORATORY TESTING OF NUCLEAR-GRADE CHARCOAL (TAC NO. MB3329)

Dear Mr. Kansler:

In a letter dated November 29, 1999, Entergy Nuclear Operations, Inc. (ENO) submitted a proposed change to the Technical Specifications (TSs) for the Indian Point Nuclear Generating Unit No. 3 (IP3). Specifically, ENO requested a change to TS 5.5.10, "Ventilation Filter Testing Program," to adopt the criteria of the American Society for Testing and Materials (ASTM) Standard D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," in accordance with the guidance of Generic Letter (GL) 99-02, "Laboratory Testing of Nuclear-Grade Activated Carbon." In a letter dated September 20, 2000, the U.S. Nuclear Regulatory Commission (NRC) staff requested additional information regarding the proposed changes. Based on the concerns raised in the request for additional information (RAI), ENO withdrew its November 29, 1999, application and submitted a revised request for amendment on October 23, 2001.

The NRC staff has reviewed the information in the October 23, 2001, application. On December 11, 2001, the staff held a telephone conference call with representatives of your staff to obtain additional clarification regarding the application. On the basis of the information discussed during the conference call, the NRC staff determined that ENO needs to provide additional information as detailed in the enclosed RAI. On February 4, 2002, the ENO staff indicated that a response would be provided within 60 days.

Sincerely,

/RA/

Patrick D. Milano, Sr. Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure: RAI

cc w/encl: See next page

Indian Point Nuclear Generating Unit No. 3

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Indian Point Nuclear Generating Unit No. 3

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Indian Point Nuclear Generating Unit No. 3

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February 8, 2002

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

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - REQUEST FOR ADDITIONAL INFORMATION RE: PROPOSED TECHNICAL SPECIFICATION AMENDMENT FOR LABORATORY TESTING OF NUCLEAR-GRADE CHARCOAL (TAC NO. MB3329)

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The NRC staff has reviewed the information in the October 23, 2001, application. On December 11, 2001, the staff held a telephone conference call with representatives of your staff to obtain additional clarification regarding the application. On the basis of the information discussed during the conference call, the NRC staff determined that ENO needs to provide additional information as detailed in the enclosed RAI. On February 4, 2002, the ENO staff indicated that a response would be provided within 60 days.

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Patrick D. Milano, Sr. Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-286
Enclosure: RAI
cc w/encl: See next page
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INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

REQUEST FOR ADDITIONAL INFORMATION

PROPOSED TECHNICAL SPECIFICATION AMENDMENT FOR LABORATORY TESTING OF

NUCLEAR-GRADE CHARCOAL FOR NRC GENERIC LETTER 99-02

By letter dated November 29, 1999, Entergy Nuclear Operations, Inc. (ENO) submitted a Technical Specification (TS) amendment request in accordance with the guidance of Generic Letter (GL) 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999. In a letter dated September 20, 2000, the NRC staff submitted a request for additional information (RAI) regarding Entergy's request. By letter dated October 23, 2001, Entergy submitted a revised TS amendment request to revise Section 5.5.10 of Appendix A to the Indian Point 3 (IP3) TS and withdrew the amendment request dated November 29, 1999. The following RAI is based on our review of Entergy's submittal dated October 23, 2001, and a followup telephone conference between the NRC staff and Entergy:

The following questions refer to Containment Fan Cooler Units (CFCU) and the Control Room Air Filtration System (CRAFS), unless otherwise noted:

1. TS 5.5.10, "Ventilation Filter Testing Program," for the CFCUs requires that a laboratory test of a sample of the charcoal adsorber shows methyl iodide removal efficiency of 85% when tested in accordance with American Society for Testing and Materials (ASTM) D3803-89, at a temperature of 86 ^{0}F and a relative humidity of 95%. On page 5 of 10 of Attachment II to the October 23, 2001, submittal, ENO states that, "The TS efficiency of 85% (equivalent to 15% penetration) provides a factor of safety (penetration assumed in analysis divided by penetration acceptance criteria) of 2 without considering the 1% allowable bypass." The staff finds that, in reality, the total penetration is 16% (15% penetration as laboratory tested and 1% bypass) for the CFCUs which will result in a safety factor of 1.875. The NRC staff guidance in GL 99-02 specifies a safety factor of 2. Clarify the discrepancy.

2. On page 4 of 10 of Attachment II to the October 23 submittal, ENO stated that "The Indian Point 3 CRVS [control room ventilation system] has two filters (Reference 6) with each having a 1" bed depth that was designed with a residence time of 0.075 seconds at 1,000 cfm. This equates to a face velocity of 66.7 ft/min... (Reference 3)". However, (a) Item 2 on page 2 of 3, (b) tabulated items for the CRVS in Attachments I and III on Page 5.0-24, and (c) Item 3.b in Attachment II on page 1 of 10 identified a face velocity of 50 ft/min for 1-inch deep charcoal beds for the CRVS filters. Clarify the discrepancy with respect to the design face velocity and the face velocity used during laboratory testing of a sample of charcoal adsorber, and provide an explanation and justification as to how this condition meets the guidance of GL 99-02.

3. On page 4 of 10, Paragraphs 3, 4, and 5, of Attachment II, to your submittal dated October 23, 2001, you stated that "The current TS for CRAFS requires that impregnated

charcoal shall have a methyl iodide removal efficiency ≥ 90% at ± 20% of the accident design flow rate... The proposed TS increases the methyl iodide removal efficiency to ≥ 91%... The 1% increase in the required efficiency is to reflect the allowable value of 1% for bypass leakage... The TS efficiency of 91% provides a factor of safety of 1 and 1% allowable for bypass. Dose analyses assumed a methyl iodide removal efficiency of 90% for the charcoal filter." The total penetration is 9% including 1% bypass which results in a safety factor of 1.11.

Provide a discussion explaining how this situation meets the guidance of GL 99-02. On the basis of the above, it is not clear whether adequate protection will be afforded to the operators in the event of a design-basis accident.