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

May 13, 2010

Mr. Sherwood Martinelli
351 Dyckman Street
Peekskill, NY 10566-4631

Dear Mr. Martinelli:

In an e-mail dated December 29, 2009, addressed to the Nuclear Regulatory Commission's (NRC's) hearing docket, you submitted a petition request pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206, "Requests for Action Under This Subpart," asking that the NRC take enforcement action against Indian Point Nuclear Generating Unit No. 3 (IP3). You asked the NRC to order the licensee, Entergy, to immediately shut down IP3 because of what you described as a "core liner crack," and to take additional actions to inspect the pipes and safe-shutdown components of IP3. The NRC staff referred your petition request to the Office of Nuclear Reactor Regulation's (NRR's) Petition Review Board (PRB). The NRC also made your petition publicly available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML093641013.

On January 6, 2010, the NRR PRB met and considered your request for an immediate shutdown of IP3. The PRB recognized that the condition you described does not exist at IP3. Your petition describes the refueling cavity leak at Indian Point Nuclear Generating Unit No. 2 (IP2). Since the petition described the leak at IP2, the PRB considered your petition to have a clerical error and evaluated the petition with regard to IP2 because this condition does not exist at IP3. The PRB denied your request for an immediate shutdown of the affected unit, as it did not identify any safety concerns that would warrant such an action. On February 17, 2010, and again on March 10, 2010, the PRB met to consider the other requests in your petition. The PRB's initial recommendation was to reject your petition on the IP2 refueling cavity leak on the basis that the NRC has already reviewed, evaluated, and resolved the issues you raised. The licensee is not in violation of its license or of any NRC regulation on this issue. You did not respond to an opportunity to provide the PRB with additional information in support of your petition.

The refueling cavity is located inside the containment building, is normally empty, and is filled with water during the refueling of the reactor so that irradiated fuel assemblies can be handled under water for radiation shielding and cooling. The refueling cavity at IP2 has a small leak, estimated at about 5 gallons per minute during the recent outage that ended on April 12, 2010. As IP2 is refueled every 2 years, and the refueling cavity is flooded for about 2 weeks each refueling, the leakage is only present for about 2 weeks every 2 years. The water is collected in the containment building sump and processed in the radwaste system. The refueling cavity resembles a large swimming pool with thick concrete walls, and a thin metal liner that is designed to be watertight. Although it continues to attempt to fix this leak, Entergy has not been able to locate and repair the leakage in the liner.

During the review of Entergy's application for license renewal of IP2, the NRC staff issued a safety evaluation report (SER) with open items on January 15, 2009 (ADAMS Accession No. ML090150571). Open Item 3.0.3.2.15-1, on the Structures Monitoring Program, noted the presence of a refueling cavity leak at IP2. The NRC staff expressed its concern about the

potential for degradation of the underlying concrete and reinforcement rebar because of the leakage of borated water through the cavity liner and the potential impact of the leakage on other adjacent structures. Entergy committed to inspect and evaluate a sample of potentially affected refueling cavity concrete, including embedded reinforcing steel, prior to the period of extended operation for license renewal in order to provide additional assurance that the concrete walls have not degraded. Entergy also described its plan for implementing a permanent fix over the next two scheduled IP2 refueling outages and committed to perform another inspection and evaluation of the refueling cavity concrete at 10 years into the period of extended operation should the condition not be resolved. On August 11, 2009, the NRC staff issued the final SER on Indian Point license renewal (ADAMS Accession No. ML092240268). In the final SER, the NRC staff concluded that the aging effects on the IP2 refueling cavity concrete will be adequately managed during the period of extended operation, and closed the open item on the IP2 refueling cavity leak. The licensee and the NRC staff discussed the refueling cavity leak with the NRC's Advisory Committee on Reactor Safeguards (ACRS), during the ACRS review of the Indian Point license renewal SER. On September 23, 2009, the ACRS issued a letter to the NRC Chairman recommending approval of license renewal for IP2 and IP3 (ADAMS Accession No. ML092590684).

The PRB's final recommendation is to reject this petition for review as the NRC has already reviewed, evaluated, and resolved the issues you raised.

Thank you for your interest in these matters.

Sincerely,

Thomas Blount

Thomas Blount, Deputy Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

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The PRB's final recommendation is to reject this petition for review as the issues you raise have already been reviewed, evaluated, and resolved by the NRC.

Thank you for your interest in these matters.

Sincerely,
/RA/

Thomas Blount, Deputy Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

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*Via email

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