

October 26, 2005

The Honorable Hillary Rodham Clinton  
United States Senate  
Washington, D.C. 20510

Dear Senator Clinton:

I am responding on behalf of the U.S. Nuclear Regulatory Commission (NRC) to your letter dated October 25, 2005, concerning the Indian Point Energy Center in Buchanan, New York. You expressed concerns about recently reported leakage from the spent fuel pool (SFP) at Indian Point Unit 2 (IP2) and requested information about the SFP cracks, potential impacts of tritium leakage on groundwater and drinking water, how information was communicated to your office and other stakeholders, and recent emergency siren failures. I also want to thank you for the opportunity to discuss these issues with you yesterday.

On September 1, 2005, Entergy informed the NRC that workers had identified cracks in the wall of the Indian Point Unit 2 SFP and observed a small amount of moisture along one of the cracks. The cracks were discovered as a result of an on-going excavation activity in the fuel handling building to install a higher capacity gantry crane to load and transport fuel casks in support of Entergy's Independent Spent Fuel Storage Installation project. NRC reviewed the conditions on site and then concluded that there were no near term safety issues. Specifically, an NRC structural specialist and a health physics inspector were sent to the Indian Point facility to assist the resident inspectors in monitoring the progress of Entergy's investigation. Entergy sought to characterize the situation by conducting analysis of the water samples to determine the source of the moisture. Due to the small volume of water present in the vicinity of the cracks, Entergy had difficulty obtaining a sufficient amount of water to conduct a chemical and radiological analysis. Once sufficient water accumulated, Entergy was able to complete a radioisotopic analysis, and based on the sample results, Entergy concluded that the SFP was likely leaking.

On September 19, 2005, Entergy informed the NRC that, based on analysis, the characteristics of the water collected in the vicinity of the wall cracks were consistent with SFP water. Given the current state of knowledge, the leak does not pose immediate health or safety concerns for members of the public, or adverse environmental impacts. Nonetheless, the licensee is in the process of characterizing the tritium contamination to evaluate the extent of the tritium leak. The NRC decided on September 20, 2005, to initiate a special inspection because the exact nature and extent of the condition were not completely known. The NRC also initiated a communication plan on September 20, 2005. On October 7, 2005, the inspection scope was expanded to assess information related to the discovery on October 5, 2005, of tritium contamination in an on-site monitoring well (the updated special inspection charter is enclosed). Furthermore, the NRC will pay special attention to issues related to groundwater and drinking water. The inspection will be thorough, prompt and public.

With regard to potential contamination, soil, rock, and debris associated with the excavation work in the vicinity of the SFP wall are being monitored for contamination. Material that had the potential to be contaminated, or was contaminated, has been segregated into

special containers. Contaminated material will be disposed of as radioactive waste. When radioactive waste is removed from the site, such shipments are inspected on a sampling basis by our inspectors as part of the Reactor Oversight Process.

The NRC strives to provide accurate, timely, and complete information about the safety performance of licensees. In this instance, as information was being gathered by the licensee to determine the source of water, the NRC delayed communications until more factual and complete information could be provided to the public and elected officials. The difficulties encountered by the licensee in characterizing the source of water further delayed efforts to provide complete information. The NRC should have notified the public and elected officials earlier. Nuclear power plant operations require an exceedingly high level of public communication, cooperation, and coordination. I can assure you that the agency is committed to strengthening its performance in this area.

As the special inspection progresses, the NRC will provide periodic updates to your office and other interested stakeholders. A web site on the NRC home page has also been developed to share information on the issue (<http://www.nrc.gov/reactors/plant-specific-items/indian-point-issues.html>). The NRC will conduct a public meeting to discuss the results of the special inspection and provide an opportunity for members of the public and elected officials to ask questions and offer comments. A copy of the special inspection report, which will be issued and made publically available within 45 days of inspection completion, will be provided to you.

I can assure you that NRC will conduct a thorough evaluation of the circumstances surrounding the spent fuel pool and tritium contamination issues and will openly share the results. Consistent with this commitment, the NRC invited two representatives of the State of New York to participate in the special inspection entrance meeting, and they have been invited to participate in the inspection. The NRC will intensify its efforts to provide accurate and timely information of this type to the public and elected officials.

For the SFP and tritium issues, the NRC will provide additional and enhanced specialized inspection for as long as needed. The NRC will provide to you further details regarding its planning and activities on these issues, and on implementation of effective backup power for the Indian Point emergency notification system, as soon as they become available.

I hold myself and my staff accountable for the discharge of the NRC's responsibilities, including prompt and effective communications with the public and elected officials. Please contact me if you have further questions regarding this issue.

Sincerely,

*/RA/*

Nils J. Diaz

Enclosure:  
Special Inspection Charter  
Indian Point Unit No. 2 (updated)

October 7, 2005

MEMORANDUM TO: John R. White, Manager  
Special Inspection

James D. Noggle, Senior Inspector  
Special Inspection

FROM: A. Randolph Blough, Director **/RA/**  
Division of Reactor Safety

SUBJECT: SPECIAL INSPECTION CHARTER - INDIAN POINT UNIT NO. 2  
(UPDATED)

This memorandum updates my memorandum of September 20, 2005, instructing you to complete a special inspection at Indian Point 2.

Background:

Indian Point Unit 2 has been conducting excavation of the Fuel Storage Building (FSB) Loading Bay adjacent to the south wall of the Spent Fuel Pool (SFP) in preparation for installation of a gantry crane required to complete the Independent Spent Fuel Storage Installation Project. In early September while removing material along the south wall of the SFP, several 1/64" wide cracks were found. Two of these cracks exhibited wetness along the seams. Collected leakage from these seams has been small; recently Entergy staff efforts to collect leakage have yielded less than a pint a day. Subsequently, Entergy initiated actions to assess this condition and informed the NRC.

The moisture collected from these cracks and immediately adjacent soil have been analyzed and found to have the radiological characteristics of spent fuel pool water. However, to date, the licensee has been unable to establish if the material is due a previous leak that was detected in the early 1990's and subsequently repaired, or is of more recent origin.

On October 5, 2005 Entergy reported that some tritium activity had been identified in one on-site ground monitoring well. Three other monitoring wells showed no detectable activity and other samples were being analyzed.

Information and observations to date continue to suggest that the condition does not currently pose any actual health and safety concern or adverse impact to the environment. On September 20, NRC Region I had deemed it prudent to conduct a special inspection since the nature and extent of the condition are not yet completely known, and in view of the technical complexity of the issue. This memorandum updates the charter to account for new information learned since then.

Enclosure

This Special Inspection was initiated in accordance with NRC Management Directive 8.3, "NRC Incident Investigation Program." The purpose is to better understand the source of the radiological contamination, the cause, the extent of condition, and any potential impact on spent fuel pool integrity.

The inspection will be performed in accordance with the guidance of NRC Inspection Procedure 93812, "Special Inspection," and the inspection report will be issued within 45 days following the exit meeting for the inspection.

Objectives of the Special Inspection:

The objectives of this Special Inspection are to evaluate the circumstances associated with the conditions described above. The objectives and inspection tasks are amplified in the attached charter. In the event that information is determined that the nature of these conditions are significantly different than currently understood, i.e., the circumstances and conditions may be beyond the scope of a Special Inspection, the Lead Inspector will immediately inform the Special Inspection Manager.

Team Composition:

The team will be:

Manager:	John R. White, Chief, Division of Reactor Safety Plant Support Branch 2
Lead Inspector :	James D. Noggle, Senior Health Physicist, DRS
Members:	Suresh K. Chaudhary, Health Physicist, DNMS (part-time) Mark Cox, Senior Resident Inspector, IP2 (part-time) Chris Long, Resident Inspector, IP2 (part-time) Robert Bores, Health Physicist, ORA (part-time) James Kottan, Health Physicist, DNMS (part-time) Dr. Richard Codell, Hydrologist, NMSS (part-time)

Schedule:

On-site inspection effort was conducted following identification of the cracks. The decision for a special inspection was made on September 20, 2005. The licensee's excavation activities and response efforts will be monitored by resident inspectors and the Team Leader, and other regional inspectors, as appropriate. Additional on-site inspection effort will be conducted to complete the scope of the inspection.

Questions regarding the objectives of this Special Inspection may be directed to Mr. John R. White, Chief, Division of Reactor Safety-Plant Support Branch 2 (610-337-5114).

Attachment: Special Inspection Team Charter - Indian Point Unit 2

Special Inspection Charter  
Indian Point Unit 2  
Spent Fuel Pool Leak

The objectives of the inspection are to determine the facts and assess the conditions surrounding the Indian Point Unit 2 Spent Fuel Pool (SFP) leak identified in September 2005. Specifically the inspection should:

1. Develop a Sequence of Events associated with the Unit 2 spent fuel pool relative to its construction, previous history of leaks, pool modifications, and present leak identification and management activities.
2. Assess the adequacy of Entergy's determination of the source and cause of leakage, extent of condition review, operational experience usage, and corrective actions for the condition. Independently assess new information obtained during Entergy's investigation, including the discovery of tritium contamination in an on-site monitoring well on October 5, 2005.
3. Evaluate Entergy's assessment of the risk significance of the condition, and evaluations of structural integrity and radiological impact.
4. Evaluate current mitigation strategy for the SFP leak.
5. Evaluate repair strategy and time line for the SFP leak.
6. Evaluate the licensee's plans, both near-term and long-term, for assessing SFP liner integrity, including any relevant design considerations.
7. Review the effectiveness of Entergy's efforts to monitor and control the water inventory used in the Unit 1 fuel and equipment storage pools.
8. Identify any issues requiring additional review for generic applicability.
9. Document the inspection findings and conclusions in a special inspection report in accordance with Inspection Procedure 93812 within 45 days of the exit meeting for the inspection. Periodic updates will be provided as the inspection is ongoing.