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

CHAIRMAN

February 2, 2010

The Honorable Patrick Leahy
United States Senate
Washington, D.C. 20510

Dear Senator Leahy:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letters of January 15 and 22, 2010, regarding the Vermont Yankee Nuclear Power Station in Brattleboro, Vermont. I appreciated the opportunity to discuss the subject of your letters with you on January 26, 2010, and your commitment to the citizens of Vermont in ensuring that Vermont Yankee Nuclear Power Station meets its health, safety and environmental obligations. I want to assure you that the Commission shares your concern and expectation that Entergy promptly take all appropriate actions to identify and remediate the source of the tritiated water such that there will be no impact on the public health and safety.

The NRC will continue to take proactive action to ensure that the licensee, Entergy Nuclear Operations, Inc. (Entergy), is diligently working to identify the source of the tritium that is entering the groundwater at the Vermont Yankee Nuclear Power Station. Although the situation continues to evolve since our meeting, the NRC continues to believe, at this time, that there is no public health and safety impact associated with the tritium identified in the groundwater, and tritium has not been detected in any off-site drinking water sources.

Upon confirmation of tritium in a monitoring well on site at the Vermont Yankee Nuclear Power station, the NRC's full-time, on-site resident inspectors immediately began to inspect and monitor the licensee's activities. Additionally, the NRC sent two radiation protection specialists to the site to conduct an inspection the week of January 24, 2010, of Vermont Yankee's implementation of the nuclear industry's Ground Water Protection Voluntary Initiative. The inspectors are performing inspection activities such as observing the licensee perform groundwater sampling, digging of new wells, and searching for leaks in normally inaccessible areas. The nuclear industry's groundwater initiative covers site hydrology and geology, identification of possible leaking plant structures and methods to monitor their condition, procedures for on-site groundwater monitoring and remediation decision processes, and communication requirements to notify the NRC, State, and local officials of any on-site leaks or spills affecting the subsurface ground environment.

Once Entergy confirmed positive sample results for tritium from a shallow groundwater monitoring well, it implemented a program to identify the source of the leak. Entergy has identified areas of the plant and components that potentially could be the source of the leakage, and is continuing to inspect additional areas. The NRC's resident and regional inspectors are providing oversight of Entergy's actions, which include assessing buried piping on site, inspecting accessible piping systems for leakage, and installing new groundwater monitoring wells to help pinpoint the potential source, or sources. While the current water samples from the Connecticut River and off-site monitoring locations have not detected any tritium, two of these newly installed on-site groundwater monitoring wells, near the Connecticut River, have

had positive sample results for tritium. The NRC expects these findings to assist Entergy in characterizing the nature and source of the tritium contamination as its investigation continues.

Regarding the veracity of statements made by Entergy to the State of Vermont, we will await the State's determination on the documentation Entergy provided to the State. As a result of the State's concerns, the NRC staff is determining whether information provided by Entergy to the NRC has been accurate, complete, and consistent with that provided to the State of Vermont. Under NRC regulations (10 CFR 50.9), applicants and licensees are required to submit information that is complete and accurate in all material respects. The NRC has commenced a review to verify that information provided to the NRC by Entergy associated with buried or underground piping met this regulatory requirement. Violations of NRC regulations will be addressed in accordance with the NRC Enforcement Policy.

The NRC will continue to work closely with the State and with you to ensure the citizens of Vermont are kept fully informed. The NRC has an agreement with the State of Vermont to communicate matters of interest through the Governor-appointed State Liaison Officer and the State Nuclear Engineer. The NRC will document all inspection activities in publicly available inspection reports. We will provide these inspection reports to your staff when they are completed. The State Nuclear Engineer, who has independent access to the site, observes NRC inspections. Historically, work activities associated with groundwater contamination events such as these, by their nature, require a significant period of time to safely, accurately, and completely determine the source of the leakage and to confirm that leakage has been remediated. With this in mind, the documented inspection record will consist of a number of inspection reports going forward. We will ensure that the inspection is detailed and that we regularly communicate the results to you.

As I stated during our meeting, the NRC will continue to independently review and assess any impact on the environment as additional data continues to become available. Periodic updates for your staff have been scheduled to ensure that you are kept thoroughly informed regarding the NRC's inspection and oversight of Entergy's activities at Vermont Yankee on an ongoing basis. If you have additional questions on this matter, please contact me.

Sincerely,

Gregory B. Jaczko

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cc: Senator Bernard Sanders
Representative Peter Welch