

**Opening Remarks to the Vermont Legislative Committee Session**  
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**Region I**

**Introduction**

I appreciate the opportunity to speak to you in this forum. We've communicated with the state legislative committee members in other forums included our teleconference briefing on February 12, as well as our response to your February 17 letter on March 19. However, we believe that face-to-face communications are still the best forum in which to ensure all parties interests are served.

My name is Darrell Roberts, I am the Director of the Division of Reactor Safety in the NRC's Region I office in King of Prussia, Pa. With me today are John White, Branch Chief, Plant Support Branch 2 in my division. Mr. White's branch is responsible for the inspection and oversight of radiation protection activities associated with operating reactors within our region, which covers the Northeastern U.S. Karl Farrar is our Regional Counsel, and Nancy McNamara is our State Liaison Officer. She is the primary interface between our office and the various state government representatives tasked with providing oversight of nuclear power plant activities in the states within our region.

My focus today will be to discuss our activities following the discovery of tritium in groundwater monitoring well samples at Vermont Yankee beginning this past January, including our inspection response specific to VY, as well as broader activities to address our regulatory approach to groundwater contamination, both of which are ongoing efforts. We will discuss our current regulatory approach to ensuring that the plant is operating within NRC limits and without significant radiological impact on the health and safety of the public and the environment. I will then touch on a few other topics that have received recent media attention. We will then field any questions you have related to these topics, the topics addressed in my response to the three legislative committees dated March 19, or any other questions you may have. We will attempt to answer all of your questions that don't involve predecisional NRC information or items that are in litigation before the Commission. Where we cannot provide answers today, we will work through the Dept. of Public Service to get you those answers as soon as possible.

**Discovery of Leak and Immediate NRC follow-up:**

Upon being notified on January 7, 2010, of the discovery of tritium in groundwater monitoring well samples at the Vermont Yankee site, we immediately dispatched a specialist inspector and management resources to the site to ensure that 1) the tritium detected in samples was within our regulatory limits, which I'll explain later; 2) the licensee was taking appropriate and aggressive steps to identify and terminate the source of the leak; 3) the licensee had effectively implemented industry groundwater protection initiatives endorsed by the agency in 2007; and 4) that the licensee is taking

appropriate steps to properly characterize the site's hydrology and to perform remediation and long-term monitoring activities. The specialist inspection and management staff we dispatched to the site from our office in King of Prussia, PA were in addition to the normal oversight provided by resident inspectors who are stationed onsite every day and who live in the community.

Our inspection verified that, to-date, tritium detected onsite was: a) not detected in any drinking water well samples onsite or in the adjacent Connecticut River above minimum detectable levels; and b) the leak or leaks were associated with piping or systems that did not compromise the safe operation of the plant. In other words, our inspections verified that the leaks did not pose a significant radiological hazard or an operational safety hazard associated with the nuclear power plant.

Notwithstanding, the licensee's recent announcement regarding the identification and termination of the leak, our inspection of their activities (including our review of their root cause determination, additional groundwater and soil sample results, site characterization and remediation, and long-term monitoring plans) is continuing with an anticipated end-date in mid-April, with our final results to be communicated in a written inspection report by mid-May.

### **Regulatory Approach to Groundwater Protection**

The NRC shares the goal that no buried or underground pipes would leak contaminants which could enter the groundwater and potentially impact drinking water supplies; however, we understand that pipes containing radionuclides may leak. That said, we've employed regulatory limits which are designed to ensure that radiological effluents (whether they are part of a planned, monitored release, or those associated with uncontrolled releases such as leaks) are within acceptable standards to minimize dose to the public. Generally speaking, these limits are incorporated in plant procedures known as Offsite Dose Calculation Manuals and basically state that any known release should be eliminated such that a maximum exposed individual should not receive more than 3mR/year. That ALARA limit is well within the NRC's 100 mR/year dose limit to members of the public from ANY source of radiation, as well as the EPA's regulatory limit of 25 mR/year from drinking water sources. The EPA's limit is incorporated by reference in our NRC regulations. The NRC limits apply equally for human and environmental considerations.

Even though none of the recently identified tritium leaks at nuclear plants over the past several years have approached concentrations which would challenge NRC limits, we understand that these leaks have raised questions about licensees' ability to monitor pipes for leaks as well as the NRC's own oversight of licensee activities. While we believe in the integrity of our current regulatory approach, as a learning organization that values continuous improvement, we continue to evaluate operational experience to enhance our oversight in this area. For example, the lessons learned we applied in 2006 following tritium leaks identified at a plant in Illinois led to the development of the industry's groundwater protection initiative, the implementation of which is being inspected by the NRC at all operating nuclear power plants through this year. We believe the groundwater initiative is largely responsible for the discovery and correction of leaks from both above-ground systems and below-grade components at sites since

2007, including the Vermont Yankee leak. The successful identification of leaks has been afforded largely by the installation of new strategically placed groundwater monitoring wells at the sites, such that leaks are detected and stopped before contaminants create significant radiological hazards.

Nonetheless, the recent leaks at plants like Oyster Creek in New Jersey and Vermont Yankee here in Vermont, have caused NRC licensees and the NRC itself to reassess actions (beyond those already taken following the 2006 lessons-learned) necessary to detect groundwater contamination. On March 10 of this year, the NRC's Executive Director for Operations tasked the Deputy EDO for Reactor and Preparedness Programs to convene a Groundwater Contamination Task Force, the main purpose of which is to determine whether the actions we have taken or that we plan to take in response to recent events, and whether the recommendations implemented in response to the 2006 lessons learned task force need to be augmented. The current GW task force, whose charter includes a requirement to conduct two workshops, one in our HQs area in Rockville, MD, and one right here in Vermont near the Yankee site, is required to provide its observations, findings, and recommendations in the form of a written report to the Deputy Executive Director for Operations (DEDO) by May 15, 2010.

#### **I'll Touch On A Few Other Topics Before I Turn It Over for Q's and A's:**

##### **Demand For Information Letter:**

As you may know, we issued to Entergy on March 1, 2010, a demand for information letter, or DFI, requiring information be submitted to confirm the completeness and accuracy of information previously provided to the NRC by individuals affected by actions announced by Entergy in late-February. The DFI also seeks information confirming that the impact of organizational changes in which the affected individuals had involvement in NRC-regulated activities was assessed in the areas of safety culture and continuing regulatory program performance. The response to the DFI was due yesterday, March 31, 2010, and will be made available for public in the NRC's public document room and in ADAMS, our electronic document management system. The NRC will conduct an acceptance review of that response, and then determine what our followup inspection footprint will be based on our initial evaluation of the reply.

##### **Government to Government Meeting:**

The NRC was planning to conduct a gov't-to-gov't meeting with elected and appointed officials in the three states and local communities within the plant's 10-mile EPZ on Wednesday, April 14, 2010, in Keene, NH - two days after an open-house forum in Brattleboro, VT, which was scheduled from 1pm - 8pm at the Ramada Inn. Based on concerns raised about the appropriateness of a closed forum with the gov't stakeholders, we have reassessed our plans, and are now NOT conducting the closed forum on 4/14. We are working to expand the scope of our public forum tentatively scheduled for 4/12, to include government stakeholders, the timing and location of which are yet to be determined and could be subject to change based on venue availability. We will keep stakeholders informed as soon as we finalize those plans. I'd just like to add that we believe the agency has a long history of openness and transparency in our actions as evidenced by our appearances here in Vermont as well as in other venues near reactor

sites over the years, and that we believe our actions going forward will continue in that vein.

**Reports of Cesium – 137 onsite:**

I'll ask John White to discuss the recent reports of cesium-137 onsite, and then we'll turn it over for questions and answers. Thanks for the opportunity to talk with you about these issues, and I look forward to our continued communications.