July 30, 2008

The Honorable Paul W. Hodes United States House of Representatives Washington, D.C. 20515

Dear Congressman Hodes:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of July 17, 2008, in which you requested information regarding recent events at the Vermont Yankee Nuclear Power Station in Vernon, Vermont. Detailed information, responsive to your requests, is provided in the enclosure to this letter.

Thank you for your continued interest on matters related to Vermont Yankee. Should you have any further questions, please contact me.

Sincerely,

/RA Bruce S. Mallett for/

R. W. Borchardt Executive Director for Operations

Enclosure: NRC Response July 30, 2008

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Enclosure: **NRC** Response

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DATE	07/28/08	07/30/08	07/29/08		

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# Request 1:

You requested a description of the procedures that the NRC will undertake to ensure that all appropriate New Hampshire federal and state representatives and officials will be fully and immediately briefed on all future events involving Vermont Yankee Nuclear Power Station (VY) that fall under the NRC's purview.

## NRC Response to Request 1:

The NRC's Office of Congressional Affairs (OCA) has the primary responsibility to maintain communications with Congressional committees and members of Congress on matters of interest related to NRC activities. Staff within this office are designated as points of contact for the Federal elected officials within each of the NRC's regional areas. It is the agency's practice to communicate on matters involving power plants to all of the elected officials representing districts within a plant's 10-mile Emergency Planning Zone (EPZ). The OCA reviewed their contact list for notification of issues related to Vermont Yankee and determined the contact list did not include your name. We apologize for this oversight and have immediately corrected the contact list to ensure you receive future notifications.

It is the NRC's policy to cooperate with State governments as they seek to respond to the expectations of their citizens, that their health and safety be protected and that there be minimal impact on the environment. In furtherance of our mutual goals, the NRC operates under a formal Policy of Cooperation with States at Commercial Nuclear Power Plants and Other Commercial Production and Utilization Facilities (57 FR 6462, attached). In accordance with this policy, the NRC keeps States informed on matters of interest involving licensed power reactors. Communication is conducted through the State Liaison Officer (SLO) Program, under which designated NRC regional staff and a Governor-appointed official in each State serve as the points of contact for information exchange. In most cases, the State's SLO is a management or technical contact within a State's emergency response or environmental agency. In New Hampshire, the State Governor-Appointed SLO is Mr. Christopher Pope, Director of the New Hampshire Bureau of Homeland Security and Emergency Management.

Similar to OCA, the NRC SLOs communicate on matters involving power plants to the Governor-Appointed SLOs in all states within a plant's 10-mile EPZ. Following the July 11, 2008, issue at VY, the NRC appropriately communicated with the Governor-Appointed SLOs in Vermont, New Hampshire, and Massachusetts. It is the intent of the NRC policy that the State Governor-Appointed SLO will inform and coordinate with the Governor and other State agencies regarding issues under the jurisdiction of the NRC. However, should you have the need for a briefing on a specific topic of interest related to a nuclear power plant in NH and/or VT, please contact Mr. Pope with your request. With respect to NRC correspondence related to Vermont Yankee, we have recently added New Hampshire State Senator Kelly on our Vermont Yankee distribution lists.

# Request 2:

You requested a description of the event that took place at Vermont Yankee and was reported on May 16, 2008, with all supporting facts and documents necessary to establish that any safety concerns have been adequately addressed, and to demonstrate that the NRC has fully investigated this matter.

# NRC Response to Request 2:

On May 12, 2008, Vermont Yankee was lowering a loaded dry fuel storage cask onto the refueling floor when they experienced a problem with the reactor building crane. Specifically, the cask was approximately four inches above the floor when the crane operator took the control switch to stop; however, the crane motion did not stop, and the cask continued to lower, slowly, to the refueling floor. This issue did not have any impact on public health and safety.

Entergy's troubleshooting determined that the relays which function to actuate the crane brakes had been improperly calibrated. Entergy re-calibrated the affected relays, and the crane was tested satisfactorily on May 22, 2008. Vermont Yankee resumed spent fuel transfer activities on May 23, 2008, and completed the move of the storage cask to the on-site Independent Spent Fuel Storage Installation (ISFSI) on May 29, 2008. No further equipment problems were noted.

The NRC resident inspectors permanently assigned to the Vermont Yankee site were onsite at the time of the incident, and were notified of the issue with the reactor building crane. Prior to Entergy's resuming spent fuel transfer activities on May 23, 2008, the resident inspectors, along with a specialist inspector from the NRC Region I office in King of Prussia, PA, reviewed the crane troubleshooting and repair activities to verify that the problem had been adequately addressed.

Since the May 12, 2008, incident, the resident inspectors have continued their follow-up of the reactor building crane issue, focusing on the adequacy and thoroughness of Entergy's past maintenance of the crane. The results of this inspection effort will be documented in an NRC inspection report (IR 05000271/2008004), which will be available by August 14, 2008. We will provide you with a copy of this inspection report when it becomes available. In the interim, please contact Mr. Eugene Dacus, of the NRC's Office of Congressional Affairs at (301) 415-1697, if you would like to arrange for a briefing on the preliminary results of this inspection.

### Request 3:

You requested a description of the new procedures that the NRC has put in place to ensure that the water cooling system at Vermont Yankee can operate safety and reliably, in light of the event of August 22, 2007, and the event of July 11, 2008.

### NRC Response to Request 3:

NRC review of both cooling tower events was performed in accordance with existing inspection procedures. We have not put in place any new procedures in response to these events.

To clarify NRC's regulatory oversight responsibility regarding the cooling towers, we are providing the following background information: VY has two cooling towers, each consisting of 11 cells, for a total of 22 cells. The non-safety function of the cooling towers is to provide cooling water to the circulating water system, in order to ensure State of Vermont river thermal discharge limits are not exceeded. One of the 22 cells, designated cell 2-1, is safety-related. This cell is located in the West cooling tower. The safety function of this cell is to provide an alternate means of reactor heat removal in the unlikely event that the service water system is lost. Cell 2-1 is structurally more robust than the non-safety cells, because it is designed to

withstand an earthquake. Adjacent to cell 2-1 is a non-safety cell designated cell 2-2. Although cell 2-2 is non-safety related, it has an identical design and construction as cell 2-1, to ensure it will also withstand an earthquake and protect cell 2-1 from any damage incurred by the remaining non-safety cells.

The NRC has regulatory oversight responsibility for the safety-related cell, 2-1, and its support cell, 2-2. It is important to note that both the August 22, 2007, and July 11, 2008, events involved structural failures within the non-safety related cells. Therefore, the scope of NRC's review, in response to these events, was focused on evaluating the applicability of the failure mechanisms identified in the non-safety related cells to the safety-related and seismic cells. The NRC verified that the safety-related cell and the seismically-designed cell will continue to meet their design functions.

The NRC performed a thorough review of both cooling tower events using existing inspection procedures. The August 22, 2007, event consisted of a partial collapse of non-safety cell 2-4, due to degraded vertical wood supports. In response to the event, the NRC resident inspectors, a region-based inspector, and two structural specialists from the NRC headquarters office performed a comprehensive inspection of the towers, with emphasis on cells 2-1 and 2-2. The results of these inspection efforts, including a Non-Cited Violation for Entergy's failure to incorporate readily available industry operating experience into the cooling tower inspection program, are provided.

Since the August 22, 2007 event, the NRC has continued to monitor and inspect the safetyrelated cell 2-1 through implementation of applicable procedures in our baseline inspection program, which is part of the NRC Reactor Oversight Process. These inspections are documented in NRC IR 05000271/2007005 (Accession Number ML080310363) and IR 05000271/2008002 (Accession Number ML08121040). These reports are available upon request.

The more recent July 11, 2008, event involved a 60 gallon per minute leak from one of the circulating water supply headers in a non-safety related cell in the East cooling tower. The leak developed when horizontal support beams for the supply header broke, allowing the header to sag and causing water to leak from one of the pipe's joints. The NRC resident inspectors were onsite when the leak was discovered, and they performed inspection throughout the weekend in accordance with Inspection Procedures to monitor the licensee's response and perform independent walkdowns of the towers.

The NRC also established a four-member Special Inspection Team (SIT), including two NRC structural specialists, which conducted on-site inspection activities the week of July 14, 2008 in accordance with Inspection Procedures. The team independently verified that cells 2-1 and 2-2 were structurally sound. The team also ensured that Entergy performed a comprehensive and thorough review of the non-safety related cells to ascertain any potential impact on cells 2-1 and 2-2. The special inspection is still in progress, and will include NRC review of Entergy's final root cause evaluation for the event. The team expects to conduct an exit meeting with Entergy in late August, and the special inspection report (IR 05000271/2008009) will be issued within 30 days of the exit. We will provide you with a copy of this inspection report when it becomes available. In the interim, please contact Mr. Eugene Dacus of the NRC's Office of Congressional Affairs if you would like to arrange for a briefing on the preliminary results of this inspection.