

April 5, 2010

MEMORANDUM TO: R. W. Borchardt  
Executive Director for Operations

THRU: Eric J. Leeds, Director **/RA/**  
Office of Nuclear Reactor Regulation

FROM: Samuel J. Collins **/RA/**  
Regional Administrator  
Region I

SUBJECT: REQUEST FOR DEVIATION FROM THE REACTOR  
OVERSIGHT PROCESS ACTION MATRIX TO PROVIDE  
INCREASED NRC OVERSIGHT OF SPECIFIC ISSUES AT  
VERMONT YANKEE

This memorandum requests your approval to deviate from the Reactor Oversight Process (ROP) in order to provide increased Nuclear Regulatory Commission (NRC) oversight of the Vermont Yankee Nuclear Power Station (VY). This action is requested to provide for: (1) additional inspections and stakeholder communications associated with on-site groundwater contamination; and (2) assessment, follow-up actions, and stakeholder communications associated with the Demand for Information that was issued by the NRC on March 1, 2010 (ML100570237). This memorandum discusses the need for increased NRC oversight and resources to address these specific issues.

#### Background

##### On-Site Groundwater Contamination:

On January 7, 2010, Entergy received positive sample results for tritium from a groundwater monitoring well that was installed in support of an industry initiative to detect groundwater contamination. Upon discovery of tritium in the on-site groundwater monitoring well, Entergy developed a plan to identify, mitigate, characterize, and remediate the source of the contamination. Entergy's plan included enhanced groundwater monitoring, visual inspections, on-site excavation, hydrological evaluations, and increased offsite radiological monitoring. Entergy also established an investigation team to implement the plan, coordinate activities, and communicate with stakeholders.

The NRC has been closely monitoring Entergy's actions. The resident inspectors immediately began to inspect and monitor Entergy's activities. Regional specialists were sent to the site to inspect Entergy's implementation of the industry groundwater initiative at Vermont Yankee. Regional inspectors, as well as managers, continue to provide oversight of the licensee's actions through direct observations and independent assessments.

### Demand for Information:

The NRC has also been monitoring activities between Entergy and the State of Vermont regarding the veracity of statements made by Entergy officials and staff relative to underground piping at Vermont Yankee. On February 24, 2010, Entergy verbally informed the NRC of actions that Entergy had taken regarding certain employees, including some who were removed from their site positions at Vermont Yankee and placed on administrative leave. According to Entergy, these actions were taken as a result of Entergy's independent internal investigation into alleged contradictory or misleading information provided to the State of Vermont that was not corrected. While the NRC does not have jurisdiction over communications between Entergy and the State of Vermont, the NRC is aware that some of these individuals had responsibilities that involved decision-making communications that are material to the NRC and/or NRC-regulated activities.

To date, the NRC has not identified any instances in which Entergy staff or officials have provided incomplete or inaccurate information to the NRC. However, in light of the above, on March 1, 2010, the NRC issued a Demand for Information (DFI) requiring Entergy, in part, to confirm that information provided by these individuals to the NRC is accurate and that the impact of the recent personnel changes is assessed with regards to regulatory program performance and safety culture.

Immediately upon being informed by Entergy of its actions taken regarding certain employees, the NRC dispatched a Region I manager to Vermont Yankee to provide additional oversight, augmenting the NRC resident inspectors assigned to the site. Additionally, a review charter was developed and a team was formed composed of the Regional Counsel, a Senior Project Engineer, and an Office of Investigations representative. As provided for by the DFI, the team independently reviewed Entergy's independent internal investigation report to assess whether there were potential issues involving decision-making communications that were material to the NRC and/or NRC-regulated activities.

### Deviation Basis

The ROP Action Matrix includes a range of licensee and NRC actions for each column of the Action Matrix. However, as discussed in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," there may be instances in which the actions prescribed by the Action Matrix may not be sufficient. In the case of Vermont Yankee, the staff considers it appropriate to apply increased inspection focus to specific areas, even though licensee performance in these areas has not crossed any specific thresholds mandating additional regulatory oversight.

The staff will continue to closely monitor Entergy's efforts to address the Vermont Yankee on-site groundwater contamination. Although tritium has been found in on-site monitoring wells, the staff has not identified a hazard to public health and safety, and the staff expects any off-site radiological releases to be very small (i.e., offsite doses, if any, would be negligible with respect to normal background). Nevertheless, increased NRC oversight of the characterization, mitigation and remediation of the tritium contamination is warranted given the extraordinary level of interest and concern by stakeholders, including numerous congressional, state, and local officials. Although there is not currently, nor is there likely to be, a public health and safety issue, additional independent inspections and assessments by the NRC of Entergy's activities, as well as increased external stakeholder communications and outreach, would help address stakeholder concerns and improve public confidence. Additionally, given the roles of some individuals who were the subject of Entergy's independent internal investigation, an increase in

independent inspection samples associated with groundwater activities will provide for added confidence in the veracity of information provided by Entergy.

The staff will thoroughly evaluate Entergy's response to the DFI, which was submitted on March 31, 2010. While we are not aware of any information that Entergy has provided to the NRC that was incomplete or inaccurate, recent organizational changes warrant additional sampling and verification. The staff plans to: (1) assess the adequacy of Entergy's response to the DFI including the appropriateness of the licensee's scope of review; (2) independently verify, on a sampling basis, information contained within the response; and (3) perform follow-up reviews of any potential adverse implications on NRC-regulated activities at Vermont Yankee.

Region I will work closely with NRC Headquarters staff to evaluate Entergy's DFI response and integrate the results of various audits, inspections, and other reviews. The results of these activities will be assessed collectively to determine if additional regulatory action by the NRC is warranted. Additionally, the results of the NRC's evaluation will require extensive communications and outreach to key internal and external stakeholders. This outreach to communicate inspection activities and results is instrumental in maintaining public confidence in the NRC.

#### Planned Actions

##### 1. On-Site Tritium Contamination

The staff requests approval to use additional NRC inspection resources to conduct specialized inspections, on a quarterly basis and as-needed, to evaluate Entergy's performance and progress relative to implementation of its action plan and milestones for:

- (a) determining the location(s) and source(s) of tritium contamination into the site groundwater;
- b) arresting the site groundwater contamination;
- c) conducting an extent of condition review;
- d) implementing a leak detection/monitoring program; and
- e) implementing plans to remediate the current groundwater contamination plume.

Further, the staff expects to conduct enhanced coordination and communication with officials from Vermont, New Hampshire, and Massachusetts regarding on-site and off-site groundwater samples and results. This may include the need for the NRC to conduct independent groundwater sampling if this is deemed to be necessary to support a regulatory conclusion.

The proposed efforts associated with increased oversight of the Vermont Yankee groundwater contamination issue are estimated to require an additional 0.25 FTE in calendar year 2010. These activities are expected to continue until the NRC is satisfied that the source of groundwater contamination has been characterized, mitigated, and remediated.

## 2. Demand for Information Response Follow-Up

The staff requests approval to use additional NRC resources to provide inspection and assessment of Entergy's response to the DFI, specifically:

- (a) The staff will thoroughly review Entergy's DFI response to determine whether the information required by the DFI has been provided and to independently evaluate Entergy's conclusions. This effort may include:
  - i. Review of Entergy's DFI response and inspection of activities associated with that response to assure that information provided by Entergy that is material to the NRC (for example, licensing actions and related documents) is complete and accurate;
  - ii. Evaluation of the adequacy and timeliness of Entergy's corrective actions to address any identified inaccuracies in material information that was provided to the NRC;
  - iii. Inspection of Entergy's activities to ensure that NRC-regulated programs in the areas that have been affected by the recent Vermont Yankee organizational changes continue to be adequately implemented;
  - iv. Evaluation of Entergy's actions to identify and respond, as appropriate, to any adverse implication to the Vermont Yankee site Safety Culture as a result of its independent investigation and the resulting actions and organizational changes.
- (b) The staff expects to conduct enhanced coordination and communication with the congressional, state, and local officials from Vermont, New Hampshire, and Massachusetts regarding the NRC's independent verification and follow-up inspections of Entergy's response to the DFI.

The proposed efforts associated with the independent verification, inspections, and assessment, and the resultant external communications and outreach, relative to Entergy's response to the DFI are estimated to require an additional 1.00 FTE through calendar year 2010. These activities are expected to continue until the NRC has completed its assessment of information provided by Entergy in response to the DFI. These resources do not include expenditures by Headquarters staff for additional audits and reviews relative to Entergy's license renewal application for Vermont Yankee and other licensing actions.

### Return to Normal NRC Monitoring

The staff plans to return to normal NRC monitoring efforts at Vermont Yankee consistent with the Action Matrix upon confirmation of the following:

- The NRC has concluded that Entergy has established and implemented effluent control and environmental monitoring procedures that provide reasonable assurance that the existing groundwater conditions will continue to be effectively monitored and assessed; that the procedures will detect new or changed conditions in a timely manner; and that the procedures are sufficient to monitor remediation efforts associated with the Vermont Yankee groundwater contamination plume.

- The NRC has concluded that Entergy has appropriately addressed the information requested in the DFI, and that sufficient information is available for the NRC to determine whether further regulatory action, if any, is warranted.

Consistent with the Staff Requirements Memorandum dated May 27, 2004, the staff will provide a copy of this Deviation Memorandum to the Commission and discuss the deviation at the next Agency Action Review Meeting. Pending your approval, the NRC staff will develop a communication approach to ensure that the licensee and stakeholders are appropriately informed.

Approve/Disapprove:       /RA/       April 5, 2010  
R. W. Borchardt Date  
Executive Director for Operations

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**SUNSI Review Complete: MMM (Reviewer's Initials)**

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Memo to R. W. Borchardt from Samuel J. Collins dated April 2, 2010

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ACTION MATRIX TO PROVIDE INCREASED NRC OVERSIGHT OF SPECIFIC  
ISSUES AT VERMONT YANKEE

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