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Site Vice President

BVY 13-075

August 28, 2013

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Vermont Yankee's First Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

- REFERENCES:
1. NRC Order Number EA-12-051, Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated March 12, 2012 (ML12054A679)
 2. NRC Interim Staff Guidance JLD-ISG-2012-03, Compliance with Order EA-12-051, Reliable Spent Fuel Pool Instrumentation, Revision 0, dated August 29, 2012 (ML12221A339)
 3. NEI 12-02, Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," Revision 1, dated August 2012 (ML12240A307)
 4. Vermont Yankee's Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), BVY 12-073, dated October 26, 2012 (ML12306A086)
 5. Vermont Yankee's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), BVY 13-015, dated February 28, 2013 (ML13064A301)

Dear Sir or Madam:

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued an Order (Reference 1) to all power reactor licensees. Reference 1 was immediately effective and directs Entergy Nuclear Operations, Inc. (ENO) to install reliable spent fuel pool level instrumentation at the Vermont Yankee Nuclear Power Station. Specific requirements are outlined in Attachment 2 of Reference 1.

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NRR

Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C. Reference 1 also requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. Reference 2 endorses industry guidance document NEI 12-02, Revision 1 (Reference 3) with clarifications and exceptions. Reference 4 provided the Vermont Yankee initial status report regarding spent fuel pool instrumentation. Reference 5 provided the Vermont Yankee overall integrated plan for reliable spent fuel pool instrumentation.

The purpose of this letter is to provide the first six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The attached report provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

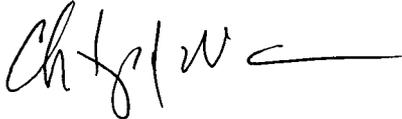
On August 27, 2013, Entergy announced that it had decided to permanently cease power operations of Vermont Yankee Nuclear Power Station in the fourth quarter 2014. This status report was prepared prior to that decision. Entergy is evaluating its responses to Reference 1 in order to determine the appropriate actions in alignment with the decision to permanently cease operations. Entergy requests the NRC terminate its review of the responses related to the Order until Entergy can submit changes to its integrated plan to reflect the impact of this decision.

Should you have any questions regarding this submittal, please contact Mr. Coley Chappell at (802) 451-3374.

This letter contains no new regulatory commitments.

I declare under penalty of perjury that the foregoing is true and correct;
executed on August 28, 2013.

Sincerely,

A handwritten signature in black ink, appearing to read 'CJW', followed by a horizontal line extending to the right.

CJW / JTM

Attachment: Vermont Yankee's (VY) First Six-Month Status Report for the Implementation of Order EA-12-051, Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation

cc list: next page

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BVY 13-075 Attachment

Vermont Yankee's (VY) First Six Month Status Report for the Implementation of Order EA-12-051, Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation

1 Introduction

VY developed an overall integrated plan (Reference 1 in Section 8), documenting the requirements to install reliable spent fuel pool level instrumentation (SFPI), in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the overall integrated plan, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2 Milestone Accomplishments

The following milestone(s) have been completed since the development of the overall integrated plan (Reference 1), and are current as of July 31, 2013.

- Although not part of the original milestone schedule, NRC requests for additional information (RAIs) were received June 20, 2013 (Reference 3) and responded to on July 19, 2013 (Reference 4). The response to the RAIs was added to the milestone schedule. Any additional RAI responses will be provided in future six-month status reports as necessary. The status of individual RAIs is indicated in the VY RAI Status table below. The addition of this milestone and target completion date does not impact the Order implementation date.

3 Milestone Schedule Status

The following provides an update to milestone schedule to support the overall integrated plan. This section provides the activity status of each item, and the expected completion date noting any change. The dates are planning dates subject to change as design and implementation details are developed.

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Reliable SFPI Installed	Fall 2014 Refueling Outage	In Progress	
NRC RAIs (Reference 3)	July 19, 2013	See VY RAI Status Table Below	

4 Changes to Compliance Method

The current Level 2 elevation is now 342'-5" El. The previous Level 2 elevation was 10 ft. above the top of the spent fuel rack at 331'-3" El. This differs from the conceptual design VY initially submitted to the NRC. The Level 2 elevation is raised to 342'-5" to account for non-special nuclear material stored above 331'-3" in the Spent Fuel Pool.

5 Need for Relief/Relaxation and Basis for the Relief/Relaxation

VY expects to comply with the order implementation date and no relief/relaxation is required at this time.

6 Open Items from Overall Integrated Plan and Draft Safety Evaluation

None.

7 Potential Draft Safety Evaluation Impacts

The NRC has not yet issued a draft safety evaluation; therefore, there are no potential impacts to the draft safety evaluation identified at this time.

8 References

The following references support the updates to the overall integrated plan described in this attachment.

1. Vermont Yankee's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051), BNY 13-015, dated February 28, 2013. (ML13064A301)
2. NRC Order Number EA-12-051, Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation, dated March 12, 2012. (ML12054A679)
3. Vermont Yankee Nuclear Power Station – Request for Additional Information RE: Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation (Order EA-12-051) (TAC NO. MF0780), dated June 20, 2013. (ML13165A279)
4. Response to Request for Additional Information Re: Overall Integrated Plan for Reliable Spent Fuel Pool Instrumentation (Order EA-12-051), BNY 13-065, dated July 19, 2013. (ML13204A386)

VY's First Six Month Status Report for the Implementation of SFPI

VY RAI Status

RAI Number	RAI Topic	RAI Status
RAI-1.a	For level 1, specify how the identified location represents the higher of the two points described in NEI 12-02 guidance for this level.	Open
RAI-1.b	Provide sketch depicting the elevation view of the proposed typical mounting arrangements for portions of the instrument channel consisting of permanent measurement channel equipment. Indicate datum values and points related to Level 1, 2, and 3.	Completed
RAI-1.c	Describe how level 2 will be adjusted to other than the elevation provided in section 2.	Completed
RAI-1.d	Provide drawings G-191173 Sht 1, Rev 40 and 5920-12795, Rev 0.	Completed
RAI-2	Provide a clearly labeled sketch or marked-up plant drawing of the plan-view of the SFP area, depicting the SFP inside dimensions, the planned locations/placement of primary and back-up SFP level sensors and the proposed routing of the cables.	Open
RAI-3.a	Provide Design Criteria that will be used to estimate total loading on mounting devices. Also describe methodology used to estimate total loading.	Completed
RAI-3.b	Provide description of the manner in which the level sensor will be attached to the refueling roof or other support structures.	Completed
RAI-3.c	Provide a description of the manner by which the mechanical connections will attach the level instrument to permanent SFP structures.	Completed
RAI-3.d	Address how other hardware stored in the SFP will not create adverse interaction with the fixed instrument location(s).	Completed
RAI-4.a	Provide a description of the method(s) intended to be applied to demonstrate of the permanently installed equipment.	Completed
RAI-4.b	Provide a description of the testing and/or analyses that will be conducted to provide assurance that the equipment will perform reliably under the worst-case credible design basis loading at the location where the equipment will be mounted.	Completed

VY's First Six Month Status Report for the Implementation of SFPI

RAI-4.c	Provide a description of the specific method or combination of methods that will confirm the reliability of the permanently installed equipment following seismic conditions.	Completed
RAI-5.a	Provide a description of how the two channels of the proposed level measurement system meet this requirement so that the potential for a common cause event to adversely affect both channels is minimized to the extent practicable.	Completed
RAI-5.b	Provide further information on how each level measurement system will be designed and installed to address independence.	Completed
RAI-6	Provide the design criteria that will be applied to size the battery in a manner that ensures, with margin, that the channel will be available to run reliably and continuously following the onset of the DBD event.	Completed
RAI-7.a	Provide an estimate of the instrument channel accuracy performance.	Completed
RAI-7.b	Provide a description of the methodology determining the maximum allowed deviation from the instrument channel design.	Completed
RAI-8.a	Provide a description of the capability and provisions the proposed level sensing equipment will have to enable periodic testing and calibration.	Completed
RAI-8.b	Provide a description of how such testing and calibration will enable the conduct of regular channel checks.	Completed
RAI-8.c	Provide a description of how functional checks will be performed and the frequency of which they will be conducted.	Completed
RAI-8.d	Provide a description of what preventative maintenance tasks are required to be performed during normal operation and the planned maximum surveillance interval.	Completed
RAI-9	Provide a description of the standards, guidelines, and/or criteria that will be utilized to develop procedures for inspection, maintenance, repair, operation, abnormal response, and administrative controls.	Completed

VY's First Six Month Status Report for the Implementation of SFPI

RAI-10.a	Provide further information describing the maintenance and testing program the licensee will establish and implement to ensure that regular testing and calibration is performed and verified by inspection and audit to demonstrate conformance with design and system readiness requirements.	Completed
RAI-10.b	Provide a description of how the guidance in NEI 12-02 Section 4.3 regarding compensatory actions for one or both non-functioning channels will be addressed.	Completed
RAI-10.c	Provide a description of the compensatory actions to be taken in the event that one of the instrument channels cannot be restored to functional status within 90 days.	Completed