



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

May 21, 2013

Site Vice President
Entergy Nuclear Operations, Inc.
Vermont Yankee Nuclear Power Station
P.O. Box 250
Governor Hunt Road
Vernon, VT 05354

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - PLAN FOR THE REGULATORY AUDIT REGARDING FLOODING WALKDOWNS TO SUPPORT IMPLEMENTATION OF NEAR-TERM TASK FORCE RECOMMENDATION 2.3 RELATED TO THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT (TAC NO. MF0293)

Dear Sir or Madam:

On March 12, 2012, the U.S. Nuclear Regulatory Commission staff (NRC) issued a request for information letter per Title 10 of the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued to power reactor licensees and holders of construction permits requesting addressees to provide further information to support the NRC staff's evaluation of regulatory actions to be taken in response to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. The request addressed the methods and procedures for plants to conduct seismic and flooding hazard walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions through the corrective action program, and to verify the adequacy of the monitoring and maintenance procedures.

By letter dated November 21, 2012, Entergy Nuclear Operations, Inc. submitted a flooding walkdown report as requested per Enclosure 4, "Recommendation 2.3: Flooding," of the 50.54(f) letter for Vermont Yankee Nuclear Power Station (VYNPS). The NRC staff plans to conduct a regulatory audit to gain a better understanding of the methods and procedures used by VYNPS to conduct the flooding walkdowns and facilitate NRC staff review of the walkdown report. The audit will be conducted at VYNPS from July 17-19, 2013, in accordance with the enclosed regulatory audit plan.

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If you have any questions, please contact me by telephone at 301-415-1030 or by e-mail at richard.guzman@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Guzman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Richard V. Guzman, Senior Project Manager
Licensing Branch 1-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:
Audit Plan

cc w/encl: Distribution via Listserv



Audit Plan

Flooding Walkdown Review for Vermont Yankee Nuclear Power Station

Audit Date: July 17-19, 2013

**Japan Lessons Learned Project Directorate
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission**

ENCLOSURE

Audit Plan Vermont Yankee Nuclear Power Station

1. Background

On March 12, 2012, the U.S. Nuclear Regulatory Commission staff (NRC) issued a request for information letter¹ per Title 10 to the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued to power reactor licensees and holders of construction permits requesting addressees to provide further information to support the NRC staff's evaluation of regulatory actions to be taken in response to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. The request addressed the methods and procedures for plants to conduct seismic and flooding hazard walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions through the corrective action program, and to verify the adequacy of the monitoring and maintenance procedures.

By letter dated November 21, 2012,² Entergy Nuclear Operations, Inc. submitted a flooding walkdown report as requested per Enclosure 4, "Recommendation 2.3: Flooding," of the 50.54(f) letter for Vermont Yankee Nuclear Power Station (VYNPS).

2. Regulatory Audit Bases

The NRC staff intends to conduct a regulatory audit to gain a better understanding of the methods and associated procedures used by Entergy Nuclear Operations, Inc. to conduct the flooding walkdowns at VYNPS and facilitate NRC staff review of the walkdown report.

Guidance for performing the flooding walkdowns was developed by the Nuclear Energy Institute (NEI) with extensive review and input from NRC staff in numerous public meetings, webinars, and public conference calls during its development. The NEI submitted NEI 12-07, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features" (walkdown guidance)³ for endorsement, and the staff subsequently endorsed the walkdown guidance by letter dated May 31, 2012.⁴ By letter dated June 11, 2012,⁵ Entergy Nuclear Operations, Inc. indicated that they would utilize the NRC endorsed guidance in the performance of the walkdowns at VYNPS.

The 50.54(f) letter and the walkdown guidance are used as the basis documents upon which this regulatory audit is to be performed.

3. Regulatory Audit Scope

The scope of this regulatory audit for VYNPS is to examine relevant flooding walkdown documents, interview flooding walkdown participants, observe areas of the plant walked down, review and understand how the reasonable simulations were performed as part of the

¹ The 50.54(f) letter is available in the Agencywide Document Access and Management System (ADAMS) under Accession No. ML12053A340.

² The licensees letter in response to "Recommendation 2.3: Flooding" flooding walkdown report -is available in ADAMS under Accession No. ML12333A013.

³ NEI 12-07 is available ADAMS under Accession No. ML12144A401.

⁴ The NRC endorsement of NEI 12-07 is available in ADAMS under Accession No. ML12144A142.

⁵ The licensees letter is available in ADAMS under Accession No. ML12171A278.

walkdowns (if applicable), and examine other relevant materials used to conduct the flooding walkdowns. This will assist the NRC staff in identifying whether the flood walkdowns were conducted in accordance with the walkdown guidance and the 50.54(f) letter. The NRC staff will request additional information using the appropriate regulatory process.

The NRC staff reviewed the walkdown report for VYNPS and compared it with the requested information in the 50.54(f) letter and the walkdown guidance. The factors that the NRC staff considered in choosing sites to audit were:

- Lack of clarity as to how the walkdown was consistent with the guidance based on the review of the walkdown report.
- Plant specific areas of interest identified during review of the walkdown report.
- Feedback and information gained during performance of regional inspections (e.g., Temporary Instruction 2515/187).

4. Information needs

The licensee is requested to have the following documentation available on site for the audit team. The documentation could be provided electronically or by paper copies. If provided electronically, the licensee is requested to have at least three computers available for the audit team, with a printer attached.

- Walkdown record forms (as described in Appendix B of NEI 12-07) and other supplemental forms and worksheets used to document observations from performance of the walkdowns, including detailed information about the walkdowns that were performed of any seals that have failed or that were determined to be degraded, or otherwise unable to perform their intended function, since the walkdowns were performed.
- Supplemental guidelines or procedures used, in addition to NEI 12-07, for the implementation of the flooding walkdowns, including industry, fleet, or site-specific guidelines or procedures (this includes, but is not limited to, EN-DC-170, "Fukushima Near Term Task Force Recommendation 2.3 Flooding Walkdown Procedure" and any site-specific acceptance criteria developed to support the walkdowns).
- Flood-specific procedures that are part of flood protection and mitigation strategy and hazardous weather response that were reviewed as part of the flood walkdowns, including, but not limited to, the "Natural Phenomena procedure" described in Section 3.4.1 of the licensee walkdown submittal.
- Listing of entries into the corrective action program resulting from the performance of the flood walkdowns, including condition report number, title, and brief summary of the issue or observation and its disposition.

Additional information that needs to be identified during the audit will be communicated to the designated point of contact.

The NRC staff also requests the licensee to make personnel that performed the walkdowns (including site staff and contractors) accessible upon request (either in person or by phone). The personnel should be able to answer questions about how the visual inspections and reasonable simulations were performed, how available physical margin (APM) values were determined, and discuss engineering analyses that were developed in support of the walkdown.

5. Team Assignments

Area of Review	Assigned Auditor
Team Lead	Stephen Campbell (NRC)
Flooding Walkdown Technical Lead	Michelle Bensi (NRC)
Flooding Technical Support	Peter Chaput (NRC)
Flooding Technical Support	Nebiyu Tiruneh(NRC)
Management Support	George Wilson (NRC)
Technical Support	Scott Rutenkroger (NRC)
Regulatory Support	Ken Erwin (NRC)

6. Logistics

The audit will be conducted at VYNPS from July 17 to July 19, 2013. Entrance and exit briefings will be held at the beginning and end of this audit, respectively. The licensee is requested to provide a room for the use of the audit team. A more detailed proposed audit schedule is attached

7. Deliverables

An audit report/summary will be issued to the licensee within about 90 days from the end of the audit. Additionally, the results of the audit will be utilized to focus the scope of any requests for additional information issued in the course of this review.

**Proposed Vermont Yankee Nuclear Power Station
Flooding Walkdown Audit Schedule
July 17–19, 2013**

July 17, 2013

P.M.

- **1:00 p.m. Check-in at site** – receive badges, meet licensee contact(s), and meet resident.
- **2:00 Entrance Meeting** - introductions, audit activities and goals, and audit logistics
- **3:00 p.m. NRC Team Breakout** – staff review of procedures, basis documents and reports related to licensees conduct of flooding walkdown
- **6:00 p.m. Audit Team Daily Closeout**

July 18, 2013

A.M.

- **8:00 a.m. NRC Team Breakout** – staff review of procedures, basis documents and reports related to licensees conduct of flooding walkdown.
- **10:00 a.m. Plant walkdown** - (as reasonably accessible and in accordance with “As Low As Reasonable Achievable” (ALARA) exposure policies).

P.M.

- **1:30 p.m. Discussion(s) with VYNPS flooding walkdown team members and contractors**
- **4:00 p.m. Audit Team Caucus**
- **5:00 p.m. NRC / Licensee Interim Meeting**
- **6:00 p.m. Audit Team Daily Closeout**

July 19, 2013

A.M.

- **9:00 a.m. NRC Team Breakout** – staff review of procedures, basis documents and reports related to licensees conduct of flooding walkdown
- **12:00 pm NRC / Licensee Exit Meeting.**

If you have any questions, please contact me by telephone at 301-415-1030 or by e-mail at richard.guzman@nrc.gov.

Sincerely,

/ra/

Richard V. Guzman, Senior Project Manager
Licensing Branch 1-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:
Audit Plan

cc w/encl: Distribution via Listserv

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ADAMS Accession No: ML13127A461

***via e-mail**

OFFICE	DORL/LPL1-1/PM	JLD/PMB/PM	DORL/LPL1-1/LA	DSEA/RHMB
NAME	RGuzman	GEMiller	KGoldstein	PChaput*
DATE	5/10 /2013	5/22/2013	5/9/2013	5/9/2013
OFFICE	DSEA/RHMB/BC	DORL/LPL1-1/BC	DIRS/IRIB	
DATE	CCook*	SMeighan	SCampbell	
NAME	5/22/2013	5/15/2013	5/21/2013	

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