



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

July 1, 2014

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 - REQUEST FOR  
ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT  
REQUEST FOR EMERGENCY PLAN CHANGE (TAC NO. MF3668)

Dear Sir or Madam:

By letter dated March 24, 2014, (Agency-wide Documents Access and Management System (ADAMS) Accession No. ML14085A257), Entergy Nuclear Operations, Inc. (the licensee) requested an amendment to the Site Emergency Plan (SEP) for the Vermont Yankee Nuclear Power Station (VY). The licensee requests review and approval of a revision to the VY SEP to revise the on-shift staffing and augmented emergency response organization (ERO) staffing under the existing requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.47(b) and Appendix E to Part 50, after it files its 10 CFR 50.82 certifications and prior to the implementation of their concurrent emergency planning exemption request at the appropriate future date.

Formal offsite radiological emergency preparedness (REP) plans, approved by the Federal Emergency Management Agency (FEMA) in accordance with 44 CFR 350, are required to be maintained and in effect until such time as the U.S. Nuclear Regulatory Commission approves a exemption to formal offsite REP requirements. The changes proposed by ENO, specifically in regards to ERO staffing of the licensee's emergency operations facility (EOF) and Joint Information Center (JIC) have the potential to adversely impact the effective implementation of the existing State and local REP plans.

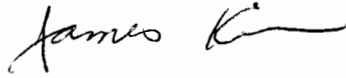
The Nuclear Regulatory Commission (NRC) staff provided a request for additional information (RAI) in order to facilitate the technical review, in regards to the impact of proposed staffing changes on the formal offsite REP plans that are currently required under existing emergency preparedness (EP) regulations. It was communicated to the licensee that these RAIs were based upon the initial acceptability review of its application and that there may be additional RAIs as the technical review was performed. The licensee provided a response dated May 21, 2014 (ADAMS Accession No. ML14149A048), to the initial RAI. The NRC staff also used the Vermont Yankee Nuclear Power Station, Emergency Plan, Revision 54, dated December 19, 2013 (ADAMS Accession No. ML13358A359), as a reference to aid in its review.

The NRC staff has determined that additional information is required to conduct the review of the licensee's request. Timely and accurate response to the draft RAIs is requested in order to meet deadline for response requested by licensee.

- 2 -

The specific questions are found in the enclosed RAI. Based on our discussions on June 11, 2014, we understand that a response to the RAI will be provided by July 11, 2014. If you have any questions regarding this letter, please feel free to contact James Kim at (301) 415-4125.

Sincerely,

A handwritten signature in black ink, appearing to read "James Kim", with a stylized flourish at the end.

James Kim, Project Manager  
Plant Licensing Branch IV-2 and Decommissioning  
Transition branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:  
As stated

cc w/encl: Distribution via ListServ

REQUEST FOR ADDITIONAL INFORMATION  
REGARDING AMENDMENT REQUEST FOR EMERGENCY PLAN CHANGE  
ENTERGY NUCLEAR OPERATIONS, INC.  
VERMONT YANKEE NUCLEAR POWER STATION  
DOCKET NOS. 50-271

**RAI-VY-01**

Attachment 1 (on Page 2 of 23) states:

NCOs [*non-certified operators*] will perform duties typically associated with those performed by AOs [*auxiliary operators*] and CROs [*control room operators*], such as manipulation and monitoring of plant equipment. NCOs will also be assigned to monitor indications and communications in the Control Room.

Please specify what is the level of training provided to the NCOs to perform the duties of the AOs/CROs with respect to operation and monitoring of plant equipment, mitigative strategies, and emergency plan training?

**RAI-VY-02**

Attachment 1 (on Page 6 of 23) states:

The OSC [*operations support center*] Manager is the only position required to activate and staff the OSC.

In addition, Section 6.1.2 of the Site Emergency Plan (SEP) states:

It is staffed with sufficient in-plant personnel required to effect protective and corrective actions in support of the emergency situation.

Please explain how the OSC can be staffed with sufficient in-plant personnel required to effect protective and corrective actions in support of the emergency situation if the OSC Manager is the only position required to activate and staff the OSC?

**RAI-VY-03**

Attachment 1 / page 7 of 23 provides:

Table 1 shows the TSC [*technical support center*] Reactor Engineer has a yes for minimum staff position.

Enclosure

In addition, Attachment 1 (on Page 2 of 23) provides that the TSC Reactor Engineer is a position that ENO proposes to eliminate. These statements are in conflict. Please clarify whether the TSC Reactor Engineer is being retained as minimum staffing or provide justification for removal as a minimum staffing position.

**RAI-VY-04**

Attachment 1 (on Page 8 of 23) states:

ERO duties have been reviewed and duties for eliminated positions will be transferred appropriately.

Please describe by what process has this been validated and documented for the emergency operations facility (EOF) and Joint Information Center (JIC)?

**RAI-VY-05**

Attachment 1 (on Page 10 of 23) states:

When the on-shift Chemistry Technician position is eliminated, the on-shift Radiation Protection Technician will be able to perform sampling and analysis, so as to not delay information potentially needed by the SM [*Shift Manager*] to determine if an emergency declaration is required.

Please describe what specific training is provided to the on-shift Radiation Protection Technician to be qualified to perform these samples and analyses functions?

**RAI-VY-06**

Attachment 1 (on Page 14 of 23) states:

The TSC Reactor Engineer position can be eliminated without increasing the risk to the public health and safety because the major task of evaluating core/thermal hydraulics is not necessary in a permanently shutdown and defueled condition.

Please explain whether the expertise of the TSC Reactor Engineer position would be needed to provide any technical evaluation support for an event in the spent fuel pool (e.g., a drain down event that may require an evaluation of the condition of the fuel to determine any possible recommendations for offsite agencies to consider).

**RAI-VY-07**

Attachment 1, Section 5.2.6 (on Page 17 of 23) states:

The function of these additional resources is to provide RP [*radiation protection*] oversight of the on-shift complement of personnel and augmented personnel who are expected to respond to emergency events for damage repair, corrective actions, search and rescue, first aid, firefighting and personnel monitoring. They can also be expected to provide for access control and the issuance of dosimetry. Analysis of the proposed change for each of these tasks is discussed

below. The fire brigade will continue to perform the tasks of search and rescue, first aid and firefighting in the permanently defueled condition.

In addition, Attachment 3, Table 8.4 (on Page 2 of 2) provides:

Protective Actions (In Plant) Shift AO/CRO/NCO (2\*\*)<sup>2</sup> on shift Note 2. All AOs/CROs/NCOs use digital dosimeters with features for dose rate and total dose monitoring. AOs/CROs/NCOs are trained to self-monitor in an emergency.

The information in Note 2 is not consistent with that provided in Attachment 1, as cited above. There is a difference between self-monitoring and "providing RP oversight" as described in Section 5.2.6.

- Please clarify how RP oversight is provided for search and rescue, and firefighting. Based on the proposed on-shift staffing, it appears that they may be part of the fire brigade, and therefore, it would be a collateral duty.
- Please clarify how the fire brigade members that may be primarily engaged in firefighting efforts or search and rescue missions are provided RP coverage.
- Please describe what training is provided that qualifies these two operations positions to perform RP oversight. Please refer to NRC Health Physics Position (HPPOS) 238, "Health Physics Position of Task Qualification of HP Technicians," in developing your response.

**RAI-VY-08**

Attachment 1, Section 5.2.6.1 (on Page 17 of 23) states:

Worker access control is now automated because RP work processes have been computerized.

Please clarify whether there are active emergency Radiation Work Permits for use at all times in the event of emergency or are they required to be activated after an emergency classification.

**RAI-VY-09**

Attachment 1, Section 5.2.6.1 (on Page 17 of 23) states:

No RP involvement is necessary for this contamination monitoring activity because workers are trained to perform this task without supervision or oversight.

Please clarify whether these workers are trained to remove tools and/or equipment from the Radiologically Controlled Area or do they require RP support.

**RAI-VY-10**

Attachment 3, Table 8.4 (on Page 1 of 2) states:

Onsite (out of plant)	Shift RP Tech (1)	on shift
In plant surveys	Shift RP Tech (1)	on shift

Based on the staff's review, it appears that there would be two RP technicians on-shift since there is no designation that these major tasks may be collateral duties. Please confirm that this conclusion is correct in regards to the number of on-shift RP technicians.

**RAI-VY-11**

Attachment 3, Section 9.2.2.5 (on Page 83 of 125) states:

The EOF Manager establishes operations in the EOF/RC...

However, Table 1 in Attachment 1 (on Page 7 of 23) indicates that this position is being eliminated. This position is also referenced in Attachment 3, Section 9.2.4 and numerous sections in the SEP that are not indicated in Attachment 3. Please clarify whether the EOF Manager position is being retained or eliminated, and provided appropriate supporting justification.

**RAI-VY-12**

Attachment 4, Section V.2 (on Page 12) states:

VY has 30 and 60 minute emergency responders when augmented while the ERO is offsite. This analysis was conducted assuming a 90 minute response of the augmented ERO to allow the use of this analysis for a possible future extension in ERO augmentation times. There were no specific emergency response tasks assigned to the augmented ERO prior to the 90 minute response.

The staff is reviewing this application for proposed changes to on-shift staffing and 30/60 minute augmented responders, and not for the acceptability of a 90 minute augmented response. Please clarify the extent of changes being requested under ENO's license amendment.

**RAI-VY-13**

The staff's previous request for additional information, RAI-VY-01, based on our initial acceptability review, requested the following:

Please identify whether the proposed changes to the [Vermont Yankee Nuclear Power Station] VY SEP were evaluated for their impact with the State and local response organizations ability to effectively implement their [Federal Emergency Management Agency] FEMA-approved [radiological emergency preparedness] REP plans, specifically in regards to licensee interface and coordination with State and local response organizations? If so, please provide evaluation performed and documentation regarding discussions with affected State and local response organizations used in making this determination.

In ENO's response dated May 21, 2014, it is not apparent to the staff that the State and local response organizations performed this review of their plan. ENO's response appears to indicate that ENO performed these evaluations. Please clarify whether the affected State and local response organizations independently performed the review of their affected plans and concur with the results provided in the ENO's response dated May 21, 2014, or if not, please identify the areas of issues and how these issues are resolved.

**RAI-VY-14**

The staff's previous RAI (RAI-VY-02), based on our initial acceptability review, requested the following:

If potential impacts to OROs exist, have the proposed changes to the VY SEP been reviewed and agreed upon by the affected OROs to ensure they can continue to meet the requirements of their current FEMA-approved emergency plans? Please provide documentation that the affected OROs have reviewed and concurred on the proposed changes.

FEMA/NRC MOU [Memorandum of Understanding] establishes a "framework of cooperation" regarding the maintenance of REP programs to ensure continued reasonable assurance. Under the MOU, FEMA is responsible for determining the adequacy of offsite REP plans and preparedness and providing its findings to the NRC "to make radiological health and safety decisions in the issuance of licenses and the continued operation of licensed plants." The NRC will be providing the proposed changes to the facilities that have interface with the State and local response organizations to FEMA for their review.

ENO's response dated May 21, 2014, apparently did not address this request. Please provide documentation that the affected State and local response organizations are in agreement with the proposed changes, or if not, please identify the areas of issues and how these issues are resolved.

The specific questions are found in the enclosed RAI. Based on our discussions on June 11, 2014, we understand that a response to the RAI will be provided by July 11, 2014. If you have any questions regarding this letter, please feel free to contact James Kim at (301) 415-4125.

Sincerely,

*/RA/*

James Kim, Project Manager  
Plant Licensing Branch IV-2 and Decommissioning  
Transition branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:  
As stated

cc w/encl: Distribution via ListServ

DISTRIBUTION:

PUBLIC	RidsNrrDorlLpl4-2	RidsNrrPMVermontYankee
LPL4-2 R/F	RidsNrrLAKGoldstein	RidsAcrcAcnw_MailCTR
RidsNrrDorlDpr	RidsRgn1MailCenter	MNorris, NSIR

**ADAMS ACCESSION NO.: ML14163A590**

**\*via email**

OFFICE	LPL4-2/PM	LPL1-1/LA	NSIR/DPR/ORLOB/BC	LPL4-2/BC
NAME	JKim	KGoldstein	JAnderson*	DBroaddus
DATE	06/17/14	06/17/14	06/02/2014	07/01/14

**OFFICIAL RECORD COPY**