



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

December 9, 2008

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 - REQUEST FOR ADDITIONAL INFORMATION  
REGARDING EMERGENCY ACTION LEVELS BASIS CHANGES TO NEI 99-01,  
REVISION 5 (TAC NO. MD9157)

Dear Sir or Madam:

By letter dated June 12, 2008, Entergy Nuclear Operations, Inc. (the licensee) requested changes to convert the technical basis for Vermont Yankee Nuclear Power Station (VY) Emergency Action Levels (EALs) from NUREG-0654 to Nuclear Energy Institute (NEI) 99-01, "Methodology for Development of Emergency Action Levels," Revision 5.

The Nuclear Regulatory Commission staff has been reviewing the changes to EALs and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). A response to this RAI is requested to be provided by January 30, 2009.

Sincerely,

A handwritten signature in cursive script that reads "James Kim".

James Kim, Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:  
As stated

cc w/encl: Distribution via Listserv

VERMONT YANKEE - REQUEST FOR ADDITIONAL INFORMATION REGARDING  
EMERGENCY ACTION LEVELS BASIS CHANGES TO NEI 99-01, REVISION 5

RAI #	EAL	Question
	GENERIC	<p>It is expected that licensee's adhere to endorsed guidance, particularly for Initiating Conditions and Definitions, with no differences or deviations other than those related to a licensee's particular design. This is to drive regulatory stability by enforcing the expectation that licensees adhere to NRC reviewed and endorsed guidance with no non-design related deviations and little to no differences.</p> <p>This also ensures that, as stated in 10 CFR 50.47(b)(4), licensees implement a "...standard emergency classification and action level scheme...."</p> <p>While the NRC is not enforcing strict verbatim compliance with the endorsed guidance, where applicable, the NRC will be pointing out areas where we expect compliance with the endorsed guidance to ensure implementation of a standard scheme. This is primarily based upon industry and NRC experience with issues related to the particular EAL.</p>
1	GENERAL	After the last EAL Threshold, in Attachment 2, there are several other pages that do not appear to reference other sections. Explain what these pages are for or revise accordingly.
2	SECT. 1.0	The purpose of the EAL Technical Bases Document needs to include its being used to support training.
3	SECT. 2.8	Typically, licensee's have a power level for one or more operating modes. Please explain why this is not the case for your EALs or revise accordingly.
4	SECT. 2.10	This statement is not part of the standard EAL scheme (NEI 99-01 R5). Revise to match the standard wording from NEI 99-01 R5.
5	SECT. 4.0	Define "Imminent" and "Sabotage" as stated in the standard EAL scheme.

RAI #	EAL	Question
6	AU1.1 AU1.2 AU1.3 (Q3 ONLY) AA1.1 (NOT Q3) AA1.2 (NOT Q3) AS1.1 (NOT Q3) AG1.1 (NOT Q3)	<ol style="list-style-type: none"> <li>1. Verify that the threshold stated in the EAL is within the calibrated range of the indicator/monitor.</li> <li>2. It appears that your ODCM lists additional monitors for gaseous and liquid releases. Explain why these monitors were not used in these EALs.</li> <li>3. In the VY Basis, a statement was made that "...the release was not isolated within 60 minutes." Why was this added and how will you ensure decision-makers do not assume they have 60-minutes to isolate once the condition was found? The timing statement at the beginning of the EAL states the staff's expectation regarding the timing of this particular EAL declaration.</li> </ol>
7	NEI AU1.2 NEI AA1.2	<p>The expectation is that this EAL be implemented, even for a zero discharge site. Your ODCM and EOP-4 list liquid effluent monitors. Explain why this EAL is not being implemented, or revise accordingly.</p>
8	AS1.3 AG1.3	<p>Verify correct term usage, i.e., 100mRem/hr vs. 100 mR/hr.</p>
9	AU2.1	<ol style="list-style-type: none"> <li>1. List applicable ARMs in the EAL.</li> <li>2. Provide additional information to support deviation from the standard EAL scheme wording or revise accordingly, the NRC expectation is for the standard EAL wording to be followed with no deviations and very few differences for this EAL.</li> <li>3. The term "unplanned" needs to be used as stated in the standard EAL scheme.</li> </ol>
10	AU2.2	<ol style="list-style-type: none"> <li>1. The term "unplanned" needs to be used as stated in the standard EAL scheme.</li> <li>2. The IC wording needs to be as stated in the standard EAL scheme and the same as you state in AU2.1.</li> </ol>
11	AA2.1	<ol style="list-style-type: none"> <li>1. For RM-17-452A/B and 453A/B, is the stated value equivalent to the high alarm?</li> <li>2. In the NEI 99-01 Basis you state "...specific list of ARMs is not included..." yet you state a list of ARMs. Explain the inconsistency or revise accordingly.</li> </ol>

RAI #	EAL	Question
12	AA2.3	<ol style="list-style-type: none"> <li>1. The NRC expects this EAL to have its own IC, not to be incorporated with other ICs. Revise accordingly.</li> <li>2. Explain why you state you have "...no permanently installed..." ARMs in the Control Room when your FSAR state you have one in the Control Room viewing gallery. Revise, or justify, accordingly.</li> <li>3. Why discuss SAS in the bases information as it is not applicable?</li> <li>4. Bases information references EAL AA2.4 which does not exist, revise accordingly.</li> </ol>
13	CU1.1 SU1.1 (Q3 ONLY) SA1.1 SS1.1 (Q3 ONLY) SG1.1 (Q3 ONLY)	<ol style="list-style-type: none"> <li>1. The IC wording needs to be as stated in the standard EAL scheme.</li> <li>2. The EAL wording needs to be as stated in the standard EAL scheme with the inclusion of the site-specific emergency buss designations.</li> <li>3. Explain the value of adding a list of AC power sources to this EAL as it adds little to no value, is a potential stumbling block in timely declaration, and adds to the overall reading burden.</li> </ol>
14	CU2.1	<ol style="list-style-type: none"> <li>1. The EAL wording needs to be as stated in the standard EAL scheme with the inclusion of the site-specific value, including the time and timing statements.</li> <li>2. You reference an EAL FAQ inappropriately as all applicable EAL FAQs have been adopted into the standard EAL scheme already.</li> </ol>
15	CU2.2 CU2.3 CU5.1 SU4.1 SA4.1	<p>The term "unplanned" needs to be used as stated in the standard EAL scheme.</p>
16	CA2.1	<p>Follow IC wording from standard EAL scheme.</p>
17	CS2.2 CG2.1 SG1.1	<p>Insert the TAF value.</p>
18	CS2.3 CG2.2	<p>Explain why you did not develop a dose rate indication/threshold as expected in the standard EAL scheme, or revise accordingly.</p>

RAI #	EAL	Question
19	CU3.1 CA3.1	<ol style="list-style-type: none"> <li>1. The term "unplanned" needs to be used as stated in the standard EAL scheme.</li> <li>2. Explain in more detail why you added wording to the threshold or return to the standard EAL scheme wording.</li> <li>3. (CA3.1) What is the scale for the available indicators for the 10 psig value?</li> </ol>
20	CU4.1 SU4.2	<ol style="list-style-type: none"> <li>1. The EAL wording for the offsite communication capabilities needs to be as stated in the standard EAL scheme with the inclusion of the part "...affecting the ability to perform offsite notifications."</li> <li>2. Is the Mobile UHF Radio System capable of communications within the power block and capable of notifying state, county, and federal agencies? If not, then it cannot be on this list. Provide further explanation or revise accordingly.</li> <li>3. Is the Southwest Fire Radio capable of notifying state, county, and federal agencies? If not, then it cannot be on this list. Provide further explanation or revise accordingly.</li> <li>4. Defueled is an expected Operating Mode for this EAL.</li> </ol>
21	HU1.2	Explain how wind gusts over the FSAR design basis will result in the expected declaration or revise accordingly.
22	HU1.3	Explain why you added (turbine) to the IC. It is not as stated in the standard EAL scheme, nor as you state in HA1.4. Revise accordingly, or justify the discrepancy.
23	HU1.4 HA1.5	Explain in more detail why all these areas are on Table H-2, do they all have safe shutdown equipment in them? Why would a flood in the Front Office Building be an EAL?
24	HA1.1	Provide, in great detail, what "...per analysis..." means. What effect does this have on timeliness of the declaration? Who does this analysis? What qualifications are needed? Is this ability available 24 hours per day, 7 days per week? Reference Information Notice 05-19 for the concern.
25	HU2.2	Explain in more detail why you added wording to the threshold or return to the standard EAL scheme wording. The added wording is more applicable to the Alert classification. In addition, the bases wording related to "...visual observation..." is inappropriately used here.
26	HU3.1	<ol style="list-style-type: none"> <li>1. "Normal Plant Operations" is a defined term and needs to be in the IC as stated in the standard EAL scheme.</li> <li>2. EAL wording needs to match the standard EAL scheme wording.</li> </ol>

RAI #	EAL	Question
27	HA3.1	<ol style="list-style-type: none"> <li>1. IC needs to match standard EAL scheme wording.</li> <li>2. Last sentence of EAL Bases is confusing in this EAL. What does this have to do with the EAL as Primary Containment is not on the list provided?</li> </ol>
28	HU4.1 HA4.1	Need to add the note from the standard EAL scheme for this EAL.
29	HU6.1	The 2 <sup>nd</sup> paragraph of the NEI 99-01 Basis was removed from the standard guidance. Explain why this was placed in your EALs or revise accordingly.
30	HA6.1	Explain in more detail why you added wording to the threshold or return to the standard EAL scheme wording.
31	CU1.2 SS1.2	The NRC expects this EAL to have its own IC, not to be incorporated with other ICs, as depicted in the standard EAL scheme. Revise accordingly.
32	SA2.1 SS2.1	The EAL and IC wording needs to be as stated in the standard EAL scheme with the inclusion of the site-specific value(s) for determining the reactor is not shutdown.
33	EU1.1	Explain why you did not follow the standard EAL scheme wording, or revise accordingly.
34	FISSION BARRIER MATRIX	<ol style="list-style-type: none"> <li>1. Explain why you do not have a threshold in the Fuel Clad Barrier for a fuel damage assessment. This is a typical threshold for a plant of your design.</li> <li>2. Explain why you do not have a threshold for Torus rads in the Fuel Clad Barrier. This is a typical threshold for a plant of your design.</li> <li>3. Do not reference SAGs in Fuel Clad-RPV Level-Loss 1. State criteria as is typical for a plant of your design.</li> </ol>

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James Kim, Project Manager  
Plant Licensing Branch I-1  
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