



June 14, 2005

Docket No. 50-271
BVY 05-062
TAC No. MC5243

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

Subject: **Vermont Yankee Nuclear Power Station
Technical Specification Proposed Change No. 270 – Supplement No. 1
Administrative Changes – Response to Request for Additional Information**

- References:
- 1) U.S. Nuclear Regulatory Commission "Draft Request for Additional Information, Amendment Request for Administrative Changes, Vermont Yankee Nuclear Power Station Docket No. 50-271," April, 2005.
 - 2) Entergy letter (BVY 04-118) to U.S. Nuclear Regulatory Commission, "Vermont Yankee Nuclear Power Station, Technical Specification Proposed Change No. 270, Administrative Changes," dated December 6, 2004.

This letter responds to NRC's draft request for additional information (Reference 1) regarding the application by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Entergy) for a license amendment (Reference 2) to incorporate administrative changes to the Vermont Yankee Nuclear Power Station (VY) Technical Specifications (TS).

Attachment 1 to this submittal contains Entergy's response to the request for additional information as further clarified during a call with the NRC reviewer on June 7, 2005. In summary, the TS LCO 3.7.C.5 and TS LCO 4.7.C.5 do not meet the criteria for inclusion in the TS as presented in 10 CFR 50.36(c)(2)(ii) and 10 CFR 50.36(c)(3), respectively. Relocation is consistent with the content of the NUREG-1433, Standard Technical Specifications for General Electric Plants, BWR/4, Revision 3.

This supplement to the license amendment request provides additional information to clarify Entergy's application for a license amendment and does not change the scope or conclusions in the original application, nor does it change Entergy's determination of no significant hazards consideration. There are no new regulatory commitments contained in this submittal.

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If you have any questions or require additional information, please contact Mr. James DeVincentis at (802) 258-4236.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 14, 2005.

Sincerely,



Jay K. Thayer
Site Vice President
Vermont Yankee Nuclear Power Station

Attachment (1)

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ATTACHMENT 1

Vermont Yankee Nuclear Power Station

Technical Specification Proposed Change No. 270 – Supplement No. 1

Administrative Changes – Response to Request for Additional Information

Total number of pages in Attachment 1
(excluding this cover sheet) is 3.

ATTACHMENT 1
Vermont Yankee Nuclear Power Station (VYNPS)
Technical Specification (TS) Proposed Change No. 270 – Supplement No. 1
Administrative Changes – Response to Request for Additional Information (RAI)

This attachment provides Entergy's response to the NRC's two individual requests for additional information.

RAI 1

On page 6 of 8 of Attachment 1 to the submittal, the licensee proposed relocating TS 3.7.C.5 and Surveillance Requirement 4.7.C.5 to the Final Safety Analysis Report. This relocation involves moving requirements for maintaining the Core Spray and low pressure coolant injection (LPCI) lower compartment doors closed in order to provide flood protection. Please provide additional information regarding the design and licensing basis for this flood protection function.

Response to RAI 1

For VYNPS, the licensing basis requires the plant to achieve and maintain a hot safe shutdown condition even in the event of a rupture of a non-Class I system, component or pipe. Flooding which results from a rupture of any non-class I system drains to the sumps located in the lowest level (Elevation 213'-9") of the Reactor Building. If gross flooding were to occur, some of the water would collect in the torus area. From the torus area, the water would be pumped from the drain sumps to the floor drain collecting tank. Operating personnel would be alerted to the flooding of the torus area by the sounding of four drain sump high level alarms in the control room.

Each of the rooms at the northeast and southeast corners of the reactor building at the 213'-9" elevation contain a Core Spray and two Residual Heat Removal (RHR) pumps. Each of these rooms has a watertight door installed at the entrance from the torus area. The VYNPS Updated Final Safety Analysis Report, Section 4.8.5 states that these rooms are isolated from the torus area by flood control doors so that a torus leak will not disable both RHR trains. Indication in the control room for internal flooding parameters includes alarms which monitor the normally closed watertight doors in the corner rooms. The alarm system which monitors the position of the doors provides an audible alarm in the control room when either door is open. These alarms are installed to assure that equipment important to safety would not be damaged by flooding due to rupture of non-Class I components and/or pipes such that engineered safety features could not perform their design function; that is no single incident of a non-Class I system, component or pipe shall prevent safe shutdown of the facility.

Opening of these doors is controlled by VYNPS Administrative Procedure AP 0077, Barrier Control Process which provides administrative requirements for, but not limited to, breaching barriers and special features or blocking flooding paths at VYNPS.

RAI 2

Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36(c)(2)(ii) requires that a TS limiting condition for operation (LCO) be established for each item meeting one or more of the following criteria:

- Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
- Criterion 2: A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- Criterion 4: A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Provide justification, using the above criteria, for the proposed relocation of TS LCO 3.7.C.5.

Response to RAI 2

LCOs and related requirements that fall within or satisfy any of the criteria in the regulation must be retained in the TS, while those requirements that do not fall within or satisfy these criteria may be relocated to licensee-controlled documents. The VYNPS UFSAR is such a licensee-controlled document. The four criteria of 10CFR 50.36(c)(2)(ii) are addressed for the relocation of TS LCO 3.7.C.5 as follows:

- (1) The Core spray and LPCI pump lower compartment doors are related to flood protection and not the reactor coolant pressure boundary. The installed alarms discussed in response to RAI 1 are not used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
- (2) The position of the Core Spray and LPCI pump lower compartment doors are not used as a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

- (3) The Core Spray and LPCI pump lower compartments are provided with watertight doors for the event of a torus rupture, not related to a design basis accident or transient. These doors are not used as part of the primary success path which functions or actuates to mitigate a design basis accident or transient.
- (4) The watertight door TS LCO and Surveillance requirements, located in the Secondary Containment section of the TS, do not support operability of the secondary containment. They are a plant design feature that addresses concerns about a potential failure of the safety related torus impacting operation of redundant ECCS equipment. The failure of the torus and resulting flooding is not a design basis accident (DBA) or design basis transient (DBT) nor is the flooding event taken concurrent with a DBA or DBT. Requirements for protective design features, not related to design basis accidents or transients are typically described in the FSAR and controlled under 10 CFR 50.59. Administrative controls will be maintained under 10CFR 50.59 to ensure that the relocated requirements continue to be implemented at VYNPS. Entergy is not aware of any operating experience that would demonstrate that this design feature needs to be controlled in the TS nor is the equipment of the same safety significance as equipment that is included in the technical specifications that mitigates DBAs and DBTs.

In summary, the TS LCO 3.7.C.5 does not meet the criteria for inclusion in the TS as presented in 10 CFR 50.36(c)(2)(ii) and relocation is consistent with the content of the NUREG-1433, Revision 3, "Standard Technical Specifications, General Electric Plants, BWR/4." Therefore, the removal of TS Surveillance Requirement 4.7.C.5 is consistent with the requirements of 10 CFR 50.36 (c)(3).

Consistent with these criteria, Entergy has proposed to relocate the TS LCO 3.7.C.5 and TS Surveillance Requirement 4.7.C.5 from the VYNPS TS to the UFSAR. Any changes to these requirements will be strictly controlled by the provisions of 10CFR50.59.