

January 15, 2004

MEMORANDUM TO: Darrell J. Roberts, Acting Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Richard B. Ennis, Senior Project Manager, Section 2 /RA/
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION, DRAFT
REQUEST FOR ADDITIONAL INFORMATION (TAC NO. MC1482)

The attached draft request for information (RAI) was transmitted on January 15, 2004, to Ms. Ronda Daflucas of Entergy (the licensee). This information was transmitted to facilitate a upcoming conference call in order to clarify the licensee's amendment request for Vermont Yankee Nuclear Power Station (VYNPS) dated December 5, 2003. The proposed amendment would revise the Safety Limit Minimum Critical Power Ratio (SLMCPR) values in Technical Specification 1.1.A.1 to incorporate the results of the cycle-specific core reload analysis for VYNPS Cycle 24 operation.

This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's request.

Docket No. 50-271

Attachment: Draft RAI

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DRAFT REQUEST FOR ADDITIONAL INFORMATION

RELATED TO SAFETY LIMIT MINIMUM CRITICAL POWER RATIO AMENDMENT REQUEST

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

By letter dated December 5, 2003, Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Entergy or the licensee) submitted an amendment request for Vermont Yankee Nuclear Power Station (VYNPS). The proposed amendment would revise the Safety Limit Minimum Critical Power Ratio (SLMCPR) values in Technical Specification 1.1.A.1 to incorporate the results of the cycle-specific core reload analysis for VYNPS Cycle 24 operation.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information the licensee provided that supports the proposed amendment and would like to discuss the following issues to clarify the submittal:

1. Please identify the design record file to support this amendment, and provide a summary table or figure to show the number of rods that might experience boiling transition as a function of the nominal MCPR.
2. It appears that a 0.04 reduction in the SLMCPR value is on the high end and not a common number according to the conclusion stated in Section 4.2 of NEDC-32694P. Provide the rationale for your core design to achieve this high reduction of the MCPR value and justify that the proposed SLMCPR reduction is conservative while both the Cycle 24 core MCPR distribution and in-bundle power distribution are much flatter than those for Cycle 23.
3. There is no penalty for the double hump power shapes shown in Table 2 of Attachment 5. Provide the rationale of how to apply this penalty in the proposed SLMCPR values.