

July 13, 2006

Mr. Michael Kansler  
President  
Entergy Nuclear Operations, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601-1839

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF  
VERMONT YANKEE NUCLEAR POWER STATION LICENSE RENEWAL  
APPLICATION

Dear Mr. Kansler:

By letter dated January 25, 2006, as supplemented by letter dated March 15, 2006, the U.S. Nuclear Regulatory Commission (NRC) received the Entergy Nuclear Operations, Inc. application for renewal of Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station (VYNPS). The NRC staff is reviewing the information contained in the license renewal application (LRA) and has identified, in the enclosure, areas where additional information is needed to complete the review. The enclosed requests for additional information are from Section 2.3, "Scoping and Screening Results: Mechanical Systems," of the VYNPS LRA, specifically Subsection 2.3.1 and Subsection 2.3.2.

Based on discussions with Mr. Jim DeVincentis of your staff, a mutually agreeable date for your response is within 30 days of the date of this letter. If you have any questions regarding this letter or if circumstances result in your need to revise the response date, please contact me at 301-415-4053 or by e-mail at [jgr@nrc.gov](mailto:jgr@nrc.gov).

Sincerely,

**/RA/**

Jonathan Rowley, Project Manager  
License Renewal Branch B  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:  
Requests for Additional Information

cc w/encl: See next page

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|--------|-------------|------------|-------------|
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| DATE   | 07/ 13 /06  | 07/ 13 /06 | 07/ 13 /06  |

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Letter to Michael Kansler from Jonathan Rowley dated July 13, 2006

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF  
VERMONT YANKEE NUCLEAR POWER STATION LICENSE RENEWAL  
APPLICATION

**HARD COPY**

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**VERMONT YANKEE NUCLEAR POWER STATION**  
**LICENSE RENEWAL APPLICATION**  
**REQUESTS FOR ADDITIONAL INFORMATION (RAIs)**

**RAI 2.3.1.1-1**

In Table 2.3.1-1 of the license renewal application (LRA), the reactor vessel leakage monitoring piping was not identified as a component within scope requiring an aging management review (AMR). The staff requests the applicant to identify the subject components within scope, because it is considered as part of the pressure boundary, and accordingly, it should be within the scope of license renewal and subject to AMR. If, however, the applicant believes that the components need not require an AMR, then they should provide plant-specific justification based on the description of the subject components, or any other relevant information, as to why the components need not be subjected to an AMR.

**RAI 2.3.1.1-2**

The staff believes that the scram discharge piping and volume should be in scope requiring aging management. However, it appears that the subject component was not identified in Table 2.3.1-1 of the LRA. Please justify.

**RAI 2.3.1.1-3**

The staff understands that the control rod drive housing supports (CRDHS) limit the travel of a control rod in the event that a control rod housing is ruptured. The supports prevent a nuclear excursion as a result of a housing failure, thus protecting the fuel barrier, and limiting radioactive releases. In addition, following a postulated failure of the drive housing at the attachment weld at the same time the control rod is withdrawn, and if the collet were to stay unlatched, the housing would separate from the vessel, and the drive and housing would be blown downward against the CRDHS. If credit is taken for the CRDHS; and since, the CRDHS are passive and long-lived, the staff believes that the subject components should be within the scope of license renewal requiring aging management. It appears, however, that the subject components and their intended function of limiting travel of the control rod following control rod housing rupture have not been identified in Table 2.3.1-1 of the LRA. Therefore, the staff requests the applicant to provide an explanation.

**RAI 2.3.2.1-1**

The low pressure coolant injection coupling was identified in the Boiling Water Reactor Vessel and Internals Project (BWRVIP) -06 report as a safety-related component. It appears, however, that the component was not identified in Table 2.3.2-1 of the LRA requiring an AMR. If the component exists at Vermont Yankee, then the staff requests the applicant to justify its exclusion from aging management; otherwise, submit an AMR for the subject component.

Enclosure

#### **RAI 2.3.2.1-2**

Please clarify whether the passive components, namely, vortex breakers used in pump suction lines, which could be located inside the emergency core cooling system tanks or in the sump, and whose intended functions are to protect the pumps from cavitation, are subject to an AMR. If so, identify which of these tanks are equipped with such passive components, and where in the LRA are the AMRs for these components, or provide justifications for exclusion of these components from aging management requirements.

#### **RAI 2.3.2.4-1**

The steam supply and return lines for high pressure coolant injection and reactor core isolation cooling (RCIC) perform safety functions, and therefore, should be in scope of license renewal in accordance with 10 CFR 50.4(a)(1). The staff requests the applicant to clarify whether the subject components are in scope requiring an AMR.

#### **RAI 2.3.3.13-1**

In Page 2.3-68 of the LRA, it was stated that the safety function of the neutron monitoring system is to detect conditions in the core that threaten the overall integrity of the fuel barrier due to excessive power generation and provide signals to the reactor protection system so that the release of radioactive material from the fuel barrier is limited, and that these signals are provided from the intermediate range monitor (IRM) and average power range monitor (APRM). The staff believes that in addition to IRM and APRM, rod block monitor, local power range monitor, and oscillating power range monitor also perform safety functions, and therefore, these components and the related electrical cables should also be in the scope of license renewal requiring an AMR.