



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

April 2, 2013

Vice President, Operations  
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 RELATING TO RELIEF REQUEST RR-PR-01  
ASSOCIATED WITH THE FIFTH 10-YEAR INSERVICE TESTING INTERVAL  
(TAC NO. MF0625)

Dear Sir or Madam:

By letter dated February 1, 2013 (Agencywide Document Access and Management System Accession No. ML13039A027), Entergy Nuclear Operations, Inc., submitted for Nuclear Regulatory Commission (NRC) staff review and approval, Relief Request RR-PR-01, an alternative to the requirements of Title 10 of the *Code of Federal Regulations*, Section 50.55a(f) for the testing of service water pumps for the fifth 10-year inservice test interval for Vermont Yankee Nuclear Power Station. Relief is requested on the basis that compliance with the Code requirements is impractical and that the proposed alternatives provide an acceptable level of quality and safety.

The NRC staff is reviewing the information provided in that letter and has determined that additional information is needed to support its review. Enclosed is the NRC staff's request for additional information (RAI). The RAI was discussed with your staff on March 28, 2013, and it was agreed that your response would be provided by May 6, 2013.

Sincerely,

A handwritten signature in cursive script that reads "James Kin for".

Richard V. Guzman, Senior 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

REQUEST FOR ADDITIONAL INFORMATION FOR  
RELIEF REQUEST NO. RR-PR-01  
RELATED TO TESTING OF SERVICE WATER PUMPS  
ENERGY NUCLEAR OPERATIONS, INC.  
VERMONT YANKEE NUCLEAR POWER STATION  
DOCKET NO. 50-271

The Nuclear Regulatory Commission (NRC) staff is reviewing the information provided by Entergy Nuclear Operations, Inc for Vermont Yankee Nuclear Power Station, in its letter dated February 1, 2013, and has determined that additional information is necessary to complete the review of Relief Request No. RR-PR-01. The NRC staff has determined that additional information requested below will be needed to support its review.

**RAI RR-P01-1**

It is stated in part, in Section 6 of the Reference, that, "scheduled inspection/replacement of Service Water pumps will be on a 6 year fixed interval for this Relief Request." Please confirm that this means that each service water pump will be inspected, replaced, or rebuilt every six years or less. Also, please provide the last date of the inspection or replacement of each service water pump.

**RAI RR-P01-2**

Section 6 also states, in part, that, "Once per Cycle, typically during each refueling outage when plant loads are minimized, a head-flow curve will be generated in accordance with ISTB-5210, and the pump comprehensive test will be performed in accordance with ISTB-5223." Explain how generating a new head-flow curve for each pump approximately every two years, instead of using the same head-flow curve for the 6-year inspection/replacement interval, will not mask pump degradation.

**RAI RR-P01-3**

Additionally, Section 6 states, in part, that, "On a quarterly basis, surveillance will be performed by measuring pump differential pressure, motor vibration, and motor amps. The data will be compared to the degree possible with the head-flow curve and vibration measurements and amps obtained during the previous 5-point test." Explain how the repeatability of the pump flow rate will be achieved, since as you noted in the above referenced document the pump flow rate cannot be measured. Also, please explain how the pump differential pressure will be measured.

**RAI RR-P01-4**

Please provide the inservice test data for the past 10 years for all of the service water pumps noted in this request.

Enclosure

April 2, 2013

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Entergy Nuclear Operations, Inc.  
Vermont Yankee Nuclear Power Station  
P.O. Box 250  
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Vernon, VT 05354

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Sincerely,  
*/ra/ (JKim for)*  
Richard V. Guzman, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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ADAMS Accession No.:ML13087A392

\*Concurrence via e-mail.

NRR-088

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|--------|------------|------------|------------|--------------|
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| NAME   | RGuzman    | KGoldstein | AMcMurtray | SMeighan     |
| DATE   | 3/28/13    | 03/29/13   | 3/26/13    | 4/2/13       |

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