

March 23, 1999

Mr. Gregory A. Maret
Director of Operations
Vermont Yankee Nuclear Power Corporation
185 Old Ferry Road
Brattleboro, VT 05301

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION, REQUEST FOR
ADDITIONAL INFORMATION REGARDING VERIFICATION OF SEISMIC
ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT (TAC NO.
M69490)

Dear Mr. Maret:

The Operator Licensing and Human Performance Branch has completed its review of your submittal on the verification of seismic adequacy of mechanical and electrical equipment in operating reactors, dated July 1, 1996. We require additional information regarding the operator actions specified in the report in order to evaluate the ability of Vermont Yankee Nuclear Power Station to cope with a postulated design basis earthquake in response to unresolved safety issue A-46 from NUREG-0933. Please provide responses to the enclosed request for additional information by May 7, 1999, as agreed to by Mr. Wayne Limberger of your staff on March 4, 1999.

Sincerely,
original signed by:
Richard P. Croteau, Project Manager
Project Directorate I-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271
Enclosure: Request For Additional Information
cc w/encl: See next page

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| R. Croteau | OGC | ACRS C. Anderson, RI |

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Director of Operations
Vermont Yankee Nuclear Power Corporation
185 Old Ferry Road
Brattleboro, VT 05301

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ADDITIONAL INFORMATION REGARDING VERIFICATION OF SEISMIC
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Sincerely,

A handwritten signature in dark ink, appearing to read "R. Croteau", is written over a horizontal line.

Richard P. Croteau, Project Manager
Project Directorate I-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure: Request For Additional Information

cc w/encl: See next page

G. Maret

cc:

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Brattleboro, VT 05301

Request For Additional Information Regarding the Licensee's Analysis on the Verification of
Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors,
dated July 1, 1996, Vermont Yankee Nuclear Power Station
Docket Number 50-271

The Operator Licensing and Human Performance Branch staff has completed its review of the licensee's submittal dated July 1, 1996. The staff requires additional information regarding operator actions specified in the report in order to make a safety determination. The regulatory basis for this request is the ability to cope with a design basis earthquake in response to unresolved safety issue A-46 from NUREG-0933.

- a. Describe what reviews were performed to determine if any local operator actions required to safely shutdown the reactor (i.e., implement the SSEL) could be affected by potentially adverse environmental conditions (such as loss of lighting, excessive heat or humidity, or in-plant barriers) resulting from the seismic event. Describe how staffing was evaluated and describe the reviews which were conducted to ensure operators had adequate time and resources to respond to such events.
- b. As part of the licensee's review, were any control room structures which could impact the operator's ability to respond to the seismic event identified? Such items might include but are not limited to: MCR ceiling tiles, non-bolted cabinets, and non-restrained pieces of equipment (i.e., computer keyboards, monitors, stands, printers, etc.). Describe how each of these potential sources of interactions have been evaluated and describe the schedule for implementation of the final resolutions.
- c. Describe what reviews were performed to determine if any local operator actions were required to reposition "bad actor relays." For any such activities describe how adverse environmental conditions (such as loss of lighting, excessive heat or humidity, or in-plant barriers) resulting from the seismic event were analyzed and dispositioned. Describe how staffing was evaluated and describe the reviews which were conducted to ensure operators had adequate time and resources to respond to such events.
- d. Describe which of the operator actions associated with resetting SSEL equipment affected by postulated relay chatter are considered to be routine and consistent with the skill of the craft. If not considered skill of the craft, what training and operational aids were developed to ensure that the operators will perform the actions required to reset affected equipment?
- e. Assume the alarms associated with "bad actor relays" are expected to annunciate during the seismic event. Do the operators have to respond to those annunciators and review the annunciator response procedures associated with them for potential action? How would those additional actions impact the operators ability to implement the Normal, Abnormal, and Emergency Operating Procedures required to place the reactor in a safe shutdown condition?
- f. To the extent that Normal, Abnormal, and Emergency Operating Procedures were modified to provide the plant staff with additional guidance on mitigating the A-46 Seismic Event, describe what training was required and provided to the licensed operators, non-licensed operators, and other plant staff required to respond to such events.