

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-271/83-26 (Followup of Inspection 50-271/83-26)

Docket No. 50-271

License No. DPR-28 Priority I Category C

Licensee: Vermont Yankee Nuclear Power Corporation

Facility Name: Vermont Yankee Nuclear Power Station

Meeting At: NRC Region I Office, King of Prussia, Pennsylvania

Meeting Conducted: May 24, 1984

Inspectors: *S. Pullani* 6/8/84
S. Pullani, Fire Protection Engineer date
Approved by: *Chifford J. Anderson* 6/8/84
C. Anderson, Chief, Plant System Section date

Meeting Summary: A technical meeting was convened on May 24, 1984 at NRC Region I Office at the request of the licensee to discuss their corrective actions towards the findings of 10 CFR 50 Appendix R Safe Shutdown Inspection 50-271/83-26. The meeting was between NRC staff and representatives of the licensee. The inspection had identified a potential violation of Section III.G.2 of the Appendix R. The topic discussed included licensee's corrective actions to date, future actions planned, and schedule for future actions.

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DETAILS

1. Meeting Attendees

1.1 Vermont Yankee Nuclear Power Corporation (VYNPC)

R. Burke, Operations Support Manager
D. Girror, Fire Protection Coordinator
W. Penniman, Senior Operations Engineer

1.2 Yankee Atomic Electric Company (YAEC)

A. Kadak, Vermont Yankee Project Manager
J. Sinclair, Vermont Yankee Licensing Engineer

1.3 Nuclear Regulatory Commission

C. Anderson, Chief, Plant Systems Section Region I
R. Borchardt, Reactor Engineer, Section 2A/DPRP, Region I
R. Eberly, Fire Protection Engineer, CMEB/DE/NRR
A. Krasopoulos, Reactor Engineer, Region I
W. LeFave, Alternate Shutdown Reviewer, ASB/DSI/NRR
S. Pullani, Fire Protection Engineer, Region I
V. Rocney, Project Manager, DL/NRR

2. Meeting Purpose

The purpose of the meeting was to discuss the licensee's corrective actions towards the findings of Inspection 50-271/83-26. The inspection had identified a potential violation of 10 CFR 50, Appendix R, Section III.G.2, regarding failure to provide the required fire protection for redundant safe shutdown equipment located primarily in the Reactor Building. Attachment I to this report lists the topics discussed during the meeting.

The safety significance of the findings was previously discussed between the NRC staff and the licensee during a meeting held at NRC Region I office on November 22, 1983 (see Meeting Report dated January 10, 1984 for details). An Enforcement Conference was held at NRC Region I office on January 10, 1984 to discuss the violation (see Enforcement Conference Report dated March 13, 1984 for details). The present meeting mainly focused on the licensee's corrective actions to date, future actions planned, and their schedule for future actions.

3. Details of Discussion

The discussion included the corrective actions as described in 5 recent licensee letters to NRC, item by item discussion of the inspection findings and licensee responses, other licensee actions, NRC actions required, and schedule for future actions. These items are discussed below.

3.1 Recent Licensee Letters

Subsequent to the inspection, the licensee had submitted the following letters to NRR and Region I as part of their corrective actions:

<u>Date of Letter</u>	<u>Addressed to</u>	<u>Subject</u>
March 14, 1984	NRR	Exemption Report
May 18, 1984	NRR	72 Hour Cold Shutdown Requirement
May 21, 1984	NRR	Additional Exemption Request
May 21, 1984	NRR	Exemption Request for Scheduling Extension - Alternate Shutdown Capability
May 21, 1984	Region I	Response to Findings of Inspection 50-271/83-26

The above letters are currently under detailed review by NRC staff. The staff's preliminary review of these letters resulted in the following comments which were discussed in the meeting.

a. Exemption Request for Reactor Building

The staff needs additional information for the exemption for the Reactor Building requested in the May 14, 1984 letter (Enclosure 1, Item 8) before the staff can take action on this item. The additional information should include detailed justification for the exemption, for example, a detailed fire hazard analysis (FHA) including associated circuit analysis. The analysis, among other things, should be based on: (1) a random loss of off-site power, and (2) the fire area concept. The licensee indicated that such an analysis is in progress and is expected to be completed by August 1984.

b. Interim Compensatory Measures

The interim compensatory measures for deficiencies presently identified and which may be identified in the future during the analysis process are described in the May 21, 1984 letter to Region I. The staff stated that these measures are not sufficient and should be supplemented by additional measures such as temporary procedures, temporary suppression and detection or fire watches in the affected areas. The licensee agreed to consider these additional compensatory measures prior to restart following the upcoming refueling outage and submit them for NRC review.

c. HPCI and RCIC Valve Control Cables

The inspection finding on this item was lack of separation, detection and automatic suppression. The licensee response as described in Item 5 of the May 21, 1984 letter to Region I was to reroute the cable. The staff stated that the required detec-

tion and automatic suppression should be provided or an exemption request submitted with detailed engineering justification. The licensee indicated that they would communicate with NRR on this issue.

d. Exemption Request for Scheduling Extension

The May 21, 1984 letter to NRR requests an open ended scheduling extension for completion of Alternate Shutdown System which is presently due by the startup following the 1984 refueling outage. The licensee stated such an extension may be required if the analysis presently in progress identifies deficiencies which will require modifications to the Alternate Shutdown System as previously approved by NRR. The staff indicated that such open ended extensions are not normally granted and the licensee should inform NRR about the results of the analysis and need for an extension as soon as the analysis is available.

3.2 Response to Inspection Finding Items

Each of the inspection finding items and the licensee's responses as described in the May 21, 1984 letter to Region I were briefly discussed. The response to different items included exemption request and/or modification as follows:

- Item (1) - Reactor Building, NW Corner, Elevation 232': Add water suppression plus exemption request
- Item (2) - Reactor Building, Torus Area: Exemption requests on auto suppression
- Item (3) - Reactor Building, NE and SE Corner Rooms: Exemption request on auto suppression
- Item (4) - Reactor Building, NW Corner, Elevation 252': Expand sprinkler system plus exemption request
- Item (5) - Reactor Building Control Cable Separation, Elevation 252': Reroute RCIC Cable
- Item (6) - Reactor Building, Instrument Racks, Elevation 280': Exemption request on detection and suppression
- Item (7) - Reactor Building, MCC 9D and MCC 89B: Seal conduits, install radiant heat shield, removal of combustibles plus exemption request
- Item (8) - Power Cables in Personnel Corridor: Fire wrap conduits plus exemption request
- Item (9) - Reactor Building: Exemption request on fire area

The licensee indicated that the required exemption requests were already submitted to the NRR except the one identified by in Paragraph 3.1.c above and the required modifications are scheduled for completion by the end of 1984.

3.3 Other Licensee Actions

The licensee stated that the following additional actions were completed:

- Performance of Safety Evaluation of plant regarding: Appendix R
- Initiated resurvey of Reactor Building
- Completed breaker coordination studies
- Installed Alternate Shutdown System
- Reviewed NRC clarification positions (Workshops)
- Will accept random loss of offsite power as design basis for Appendix R - not just fire caused loss of offsite power
- Initiating new associated circuits study using random loss of offsite power assumption
- Reevaluated 72 hour cold shutdown capability
- Reviewed emergency lighting for present alternate shutdown capability.
- Instituted interim compensatory measures

3.4 NRC Actions

The licensee indicated that the following NRC actions are needed to support their program of corrective actions:

- a. Review 72 hour cold shutdown letter and issue revised SER.
- b. VY Program is based on acceptance of exemption requests - VY needs feedback on acceptability
- c. Because the associated circuits study with a random loss of off-site power assumption may indicate that additional actions required, the NRC should permit an extension to the alternate shutdown schedule (now end of June 1984 outage)

The action on item a. is by the Auxiliary System Branch (ASB) and is expected to be completed before startup following 1984 refueling outage. The action on item b. is by the Chemical Engineering Branch (CMEB) and is expected to be completed by August 1984. Regarding

item c., the licensee is expected to communicate further with NRR as discussed in Paragraph 3.1.d of this report.

3.5 Schedule for Future Actions

The licensee provided the following schedule for their future actions:

- Complete all outage related modifications in response to the audit during the 1984 outage
- Declare existing alternate shutdown system operational by the end of outage
- Put the revised 72 hour cold shutdown method in place prior to startup from the 1984 outage
- Complete other non-outage related items identified by the audit by the end of 1984
- Complete associated circuits study by August 1984
- Based on associated circuit study findings, submit plans and schedules for any additional modifications if necessary
- Continue active dialogue with staff to resolve technical details

AGENDA

May 24 Appendix R Meeting with NRC I&E and NRR

10:00 A.M. King of Prussia, PA

Objective:

To present a concise Management Plan for Closing Out Appendix B

Discussion:

- Present Status
- Discussion of Program
 - Recent Letters
 - 72-hour cold shutdown method
 - Exemption Requests
 - Overall Program Letter (Audit Response)
 - Extension Letter
- Overall Schedule

This meeting is intended to be a management overview meeting. The purpose is to allow NRC to better understand our plans to complete our compliance with Appendix R, based on audit findings, regional workshops and other NRC clarification letters.