

U. S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-271/90-16

DEC 27 1990

Docket No. 50-271

License No. DRP-28

Licensee: Vermont Yankee Nuclear Power Corporation  
Brattleboro, Vermont 05301

Facility Name: Vermont Yankee Nuclear Power Station

Dates: October 29-31, 1990

Inspector: Todd Fish  
Todd Fish, Senior Operations Engineer

12/20/90  
date

Reviewed by: Richard Conte  
for Richard Conte, Chief  
BWR Section, Operations Branch  
Division of Reactor Safety

12/26/90  
date

Inspection Summary: This was a routine announced inspection of Vermont Yankee's Emergency Operating Procedures (EOPs) implementation, assessment of a discrepancy in a Technical Specifications (TS) figure, and assessment of facility corrective action for reactor building railroad access door seals.

The inspector reviewed the facility's responses to concerns previously identified in NRC Inspection Report No. 50-271/88-200 with the EOPs. Because the facility has implemented Revision 4 to the EOPs, all previously-identified concerns with the EOPs appear to be adequately resolved (see Paragraph 2).

The inspector assessed the facility's proposed disposition of an apparent discrepancy between actual core flow and core flow as depicted in figure 3.6.4 of the TS (NRC Inspection Report No. 50-271/88-19). Because this discrepancy is not unique to Vermont Yankee but instead is a generic issue which is currently being tracked and evaluated by the BWR Owners Group (BWROG), the facility has proposed holding off on any changes to the TS pending recommendations from the BWROG. In addition, there does not appear to be a safety concern associated with the discrepancy. Therefore, the inspector supports the facility's proposal and considers the issue's associated Unresolved Item (UNR) 50-271/88-19-01 closed (see paragraph 3.1).

The inspector evaluated the facility's response to a concern with the non-safety air supply to the seals on the reactor building railroad access doors (NRC Inspection Report No. 50-271/88-19). The inspector reviewed the modification package and post-installation test data. He concluded that the corrective actions were appropriate and considers the associated UNR closed, UNR 50-271/89-01-02 (see paragraph 3.2).

No violations were identified.

## DETAILS

### 1. Background

During the week of October 29, 1990, the inspector reviewed various outstanding items at Vermont Yankee primarily in the area of Emergency Operating Procedures (EOPs). There were three objectives to the inspection: (1) Determine whether facility corrective actions had adequately resolved concerns with the EOPs previously identified in NRC Inspection Report No. 50-271/88-200; (2) Perform an independent assessment of Vermont Yankee's proposed disposition of an apparent discrepancy between actual core flow and core flow as depicted in Technical Specifications (TS) (NRC Inspection Report No. 50-271/88-19); and (3) Evaluate facility corrective actions taken in response to NRC staff concerns with the non-safety air supply to the reactor building railroad access door seals (NRC Inspection Report No. 50-271/89-01). Personnel contacted during the course of this inspection are listed in Attachment 1.

### 2. Emergency Operating Procedures

The previous report in the area of EOPs identified several concerns with Vermont Yankee's EOPs. At the time of the inspection, Revision 3 to the EOPs was in effect. Subsequent to that inspection, the facility implemented Revision 4 (July 23, 1990). Based on the scope of the inspection, it appears that:

- 1) the current Procedure Generation Package (PGP) meets the requirements of NUREG 0737, Supplement 1;
- 2) the EOP Writer's Guide meets the guidelines of NUREG 0899; and
- 3) Appendix G to the PGP contains justifications of deviations, deletions, and additions to the Emergency Procedure Guidelines (EPGs).

These items embodied the essential concerns of the previous inspection in this area. Finally, verification and validation (V&V) of Revision 4 has been completed. Based on this selective review of documents and on the incorporation of Revision 4 to the EOPs, the inspector concluded that the facility's corrective actions were appropriate and that the previously-identified concerns have been resolved.

### 3. Licenses Action in Response to Previous Inspection Findings

#### 3.1 (Closed) Unresolved (271/88-19-01): Apparent Discrepancy Between Actual Core Flow and Core Flow as Depicted in Figure in TS.

This item dealt with a discrepancy between actual core flow and the power-to-flow plot in Figure 3.6.4 of TS. The discrepancy was that during two-pump, minimum flow operation, observed flow was greater than what flow was supposed to be per Figure 3.6.4: 40% observed flow compared to 34% flow per the Figure. The 34% flow line is significant because it is the boundary line between Region I, where

operations are prohibited, and Region II, where operations are permitted under certain circumstances. Subsequent to the discovery of this non-conservative mismatch, the licensee initiated an evaluation to determine the implications of the discrepancy. As of the inspection, they recommended making no changes to TS or to Figure 3.6.4. This proposal appears to be justified because: 1) the issue is not unique to Vermont Yankee, rather it is generic to all BWRs with small cores; and 2) the BWR Owner's Group (BWROG) is currently working in concert with the NRC to evaluate and resolve this issue.

Therefore, Vermont Yankee contends that until the BWROG and the NRC issue an official policy, any action that the facility might take now to change either their TS or the Figure will probably be premature. In addition, in order to ensure that operations near Region I are not based on what appears to be a non-conservative power-to-flow map, Vermont Yankee operating procedures now prohibit intentional operations in both Region I and Region II. (Such prohibitions were instituted shortly after the discrepancy with the Figure was first discovered.)

In conclusion, because the issue is not unique to Vermont Yankee, because the BWROG forecasts that a final report addressing the issue will be released in early 1991, and because there is minimal safety concern related to the issue, the inspector considers the UNR closed.

3.2 (Closed) Unresolved (271/89-01-02): Air Supply to Pneumatic Seals on Reactor Building Railroad Access Doors.

This item dealt with the non-safety grade Instrument Air supply to the pneumatic seals on the railroad access doors. Loss of the air supply could lead to a degradation or loss of secondary containment. In May of 1990, the facility completed installation of a seismic and safety class air supply to the railroad airlock seals. The inspector compared the design change package requirements against the installed, completed modification and reviewed the post-installation test data against the acceptance criteria. Based on this review, the inspector concluded that the facility's corrective actions were satisfactory.

4. Management Meetings

During the course of this inspection, the inspector met periodically with facility representatives and later with management at an exit interview conducted October 31, 1990. Those in attendance are noted in Attachment 1. The inspector summarized the inspection findings.

Attachment 1  
Personnel Contacted

<u>Facility Personnel</u>	<u>Notes</u>
D. Reid, Plant Manager	2
R. Wanczyk, Operations Superintendent	2
R. Pagodin, Technical Services Superintendent	2
J. Herron, Operations Supervisor	2
R. Grippardi, QA Supervisor	2
D. McElwee, Liaison Engineer	2
J. Kinsey, Project Engineer	2
W. Palonis, Senior Operations Engineer	1,2
T. Trask, Operations Shift Engineer	1,2
L. Doane, Operations Shift Engineer	1
W. Sherman, State Nuclear Engineer	2

NRC Personnel

T. Hiltz, Resident Inspector	1,2
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Notes

- 1) Attended Entrance Meeting, October 29, 1990
- 2) Attended Exit Meeting, October 31, 1990