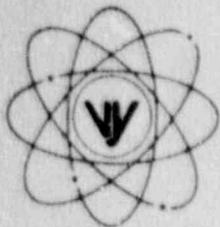


# VERMONT YANKEE NUCLEAR POWER CORPORATION



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BVY 90-029

REPLY TO:  
ENGINEERING OFFICE

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March 9, 1990

U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Document Control Desk

- References:
- a) License No. DPR-28 (Docket No. 50-271)
  - b) Letter, VYNPC to USNRC, "Vermont Yankee Primary Containment Leak Rate Testing Program," FVY 84-76, dated 6/26/84
  - c) Letter, USNRC to VYNPC, "Request for Additional Information, Appendix J Technical Specifications," Nvy 86-29, dated 2/14/86
  - d) Letter, VYNPC to USNRC, "Response to NRC Request for Additional Information, Appendix J Technical Specifications," FVY 86-51, dated 5/30/86
  - e) Letter, VYNPC to USNRC, "Supplemental Response to NRC Request for Additional Information, Appendix J Technical Specifications," FVY 86-97, dated 10/10/86
  - f) Letter, VYNPC to USNRC, "Vermont Yankee Appendix J Technical Specifications - Clarification and Request Concerning Reactor Cleanup System Valve 12-68," FVY 86-116, dated 12/15/86
  - g) Letter, VYNPC to USNRC, "Vermont Yankee Proposed Change No. 121 - Withdrawal of Request for Separate Review of Reactor Water Cleanup System Valve 12-68, BVY 89-35, dated 4/11/89

Dear Sir:

Subject: Proposed Change No. 154 to Vermont Yankee Technical Specifications Regarding Primary Containment Isolation Valves Subject to Type C Leakage Testing

Pursuant to Section 50.90 of the Commission's Rules and Regulations, Vermont Yankee Nuclear Power Corporation hereby proposes the following modifications to Appendix A of the operating license.

### Proposed Change

Replace pages 135 and 136 of the Vermont Yankee Technical Specifications with the attached revised pages 135 and 136. The proposed change revises Table 4.7.2.a (page 135) pertaining to primary containment isolation valves subject to Type C leakage tests, and Table 4.7.2.b (page 136) pertaining to primary containment isolation valves not subject to Type C leakage tests.

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U.S. Nuclear Regulatory Commission  
March 9, 1990  
Page 2

Specifically, the following changes are proposed:

1. Add Feedwater Check Valves V2-27A, -96A, -28A, and -28B to Table 4.7.2.a (page 135);
2. Delete Reactor Cleanup System Valve V12-68 from Table 4.7.2.a (page 135);
3. Delete Control Rod Hydraulic Return Check Valve V3-181 from Table 4.7.2.a (page 135);
4. Delete Feedwater Check Valves V2-28A and -28B from Table 4.7.2.b (page 136).

#### Reason and Basis for Change

In 1981, Vermont Yankee replaced the outboard feedwater check valves, V2-27A and -96A with new check valves which possess resilient seats capable of undergoing Type C, Appendix J leak testing. These valves are currently included in the Vermont Yankee leak testing program, but are not included in Technical Specifications.

During the upcoming 1990 scheduled refueling outage, Vermont Yankee plans to implement a design change which will replace the existing inboard feedwater check valves V2-28A and V2-28B with new check valves similar to the outboard check valves. Included in this design change will be new test connections which will permit Type C leak testing of the new inboard valves as well. Upon completion of this planned design change, Vermont Yankee will have an improved leak testing capability such that both check valves on each of the two feedwater lines can be leak tested.

As a result of inclusion of the feedwater check valves as leak-tested valves in the Vermont Yankee Technical Specifications; Appendix J Type C leak testing of Reactor Water Cleanup System valve V12-68 and Control Rod Drive System valve V3-181 is made unnecessary. Leak testing of the primary containment boundary will be performed on each of the two feedwater check valves, which lie downstream (inboard) of V12-68 and V3-181.

#### Safety Considerations

The change proposed by this amendment request does not present any unreviewed safety questions as defined in 10CFR50.59. Replacement of feedwater check valves V2-28A&B with valves that are leak-testable and inclusion of leak testing of the feedwater check valves in Vermont Yankee's Type C testing program and Technical Specifications will result in an improvement to primary containment boundary integrity. This change renders Type C leakage testing of Reactor Water Cleanup System valve V12-68A and Control Rod Drive System valve V3-181 unnecessary, since leak tightness will be verified at the feedwater check valves.

U.S. Nuclear Regulatory Commission  
March 9, 1990  
Page 3

This change has been reviewed by the Vermont Yankee Plant Operations Review Committee and the Vermont Yankee Nuclear Safety Audit and Review Committee.

#### Significant Hazards Considerations

The standards used to arrive at a determination that a request for amendment involves no significant hazards considerations are included in the Commission's regulation 10CFR50.92. 10CFR50.92 states that a proposed amendment does not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated; 2) create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) involve a significant reduction in a margin of safety. The discussion below addresses each of these three criteria and demonstrates that the proposed amendment involves no significant hazards considerations.

This proposed change constitutes an improvement in leak testing capability for the feedwater lines at Vermont Yankee. After the replacement of feedwater check valves V2-28A and -28B during the planned 1990 refueling outage, both the inboard and outboard feedwater check valves (four valves total on two feedwater lines) will have the capability to be Type C, Appendix J leak tested. The valves are designed to meet 10CFR50, Appendix J criteria for leak tightness.

The newly installed valves will not alter the manner in which the feedwater system operates. The feedwater check valves function to allow flow in one direction only, toward the reactor vessel. When flow either reverses or stops, the valve will seat itself and prevent reverse flow. The primary difference between the new swing check valves and the older "Y" lift check valves is the inclusion of a resilient seat. The new valves will be able to seat under feedwater system design pressures as well as under the containment design basis accident pressures. Because of the dual seat design of the new feedwater check valves, the integrity of the feedwater line primary containment penetrations is improved.

Inclusion of a leak testing capability for the feedwater check valves also precludes the need to test Reactor Water Cleanup System valve V12-68 and Control Rod Drive System valve V3-181. This will have no effect on the operation of either system.

This proposed change to include feedwater check valves V2-27A, -96A, -28A, and -28B and remove the Reactor Water Cleanup System valve V12-68 and Control Rod Drive System valve V3-181 from Technical Specifications as primary containment isolation valves that are subject to Type C leakage testing does not involve an increase in the probability or consequences of an accident previously evaluated. Operation of the Feedwater System, the Reactor Water Cleanup system, and the Control Rod Drive System is not altered or reduced from existing requirements and is still bounded by the assumptions used in the safety analysis

