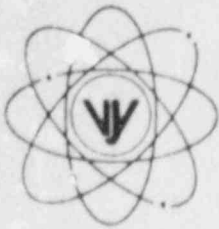


VERMONT YANKEE NUCLEAR POWER CORPORATION



RD 5, Box 169, Ferry Road, Brattleboro, VT 05301

Proposed Change No. 145

November 18, 1988

REPLY TO
ENGINEERING OFFICE
580 MAIN STREET
BOLTON, MA 01740
(508) 779-6711

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

References:

- (a) License No. DPR-28 (Docket No. 50-271)
- (b) Letter, USNRC to All Boiling Water Reactor Licensees, NRY 83-8, "NUREG-0737 Technical Specifications (Generic Letter 83-02)," dated January 10, 1983
- (c) Letter, USNRC to VYNPC, NRY 83-102, "TMI Action Plant, Item II.K.3.22 - Automatic Switchover of RCIC Suction - Verify Procedures and Modify Design," dated May 5, 1983
- (d) Letter, USNRC to VYNPC, NRY 83-113, "NUREG-0737, Item II.K.3.13 RCIC Restart," dated May 20, 1983
- (e) Letter, VYNPC to USNRC, FRY 87-105a, "Generic Letter 83-02: NUREG-0737 Technical Specifications," dated November 3, 1987
- (f) Letter, VYNPC to USNRC, FRY 87-122, "Generic Letter 83-02: NUREG-0737 Technical Specifications, Items II.K.3.13 and II.K.3.22," dated December 28, 1987

Subject: Generic Letter 83-02: NUREG-0737 Technical Specifications, Items II.K.3.13 and II.K.3.22

Dear Sir:

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

Proposed Changes

Change A

Replace Pages 34a and 63 of the Vermont Yankee Technical Specifications with the attached revised Pages 34a and 63. In addition, add the attached new Pages 49e, 49f, 60d, and 66a to the Vermont Yankee Technical Specifications. This proposed change incorporates existing procedural controls for Reactor Core Isolation Cooling (RCIC) restart and suction transfer within the Technical Specifications and provides requirements for limiting conditions of

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operation and surveillance and a discussion within the Bases. The specific changes are described below:

1. Page 34a is revised to include limiting conditions for operation and surveillance requirements for RCIC System actuation to be included under the Protective Instrument Systems (Sections 3.2 and 4.2).
2. Pages 49e and 49f add a new table and corresponding notes to the protective instrumentation (Section 3.2) to address limiting conditions for operation requirements for specific RCIC System actuation instrumentation.
3. Page 60d adds a new table to the protective instrumentation (Section 4.2) to address test and calibration frequencies for specific RCIC System actuation instrumentation.
4. Page 63 is revised to include a reference to the RCIC System in regard to the discussion concerning low-low reactor water level instrumentation in the protective instrumentation (Section 3.2) "Bases."
5. Page 66a is added to include a discussion of RCIC restart and suction in the Technical Specification, Section 3.2 "Bases."

Change B

Replace Pages 42, 43, 44, 52, 55, and 56 of the Vermont Yankee Technical Specification with the attached revised Pages 42, 43, 44, 52, 55, and 56. This proposed change, when combined with Change A, moves the "High Reactor Vessel Water Level" trip function from the tables which specify limiting conditions for operation and surveillance requirements for High Pressure Coolant Injection (HPCI) System and RCIC System isolation instrumentation, to the tables which specify these requirements for RCIC System actuation instrumentation (Change A) and to the table which specifies surveillance requirements for HPCI System actuation instrumentation (Change B). Presently, the "High Reactor Vessel Water Level" trip function is included in the table which specifies limiting conditions for operation requirements for HPCI System actuation instrumentation. Therefore, it is more appropriate to list this function in the table which specifies surveillance requirements for this HPCI System actuation instrumentation. The specific changes are described below:

1. Pages 42, 43, and 44 are revised to remove the "High Reactor Vessel Water Level" trip function and corresponding note from the listing of HPCI and RCIC isolation instrumentation included under Protective Instrument Systems (HPCI/RCIC Isolation - Table 3.2.2).
2. Page 52 is revised to add the "High Reactor Vessel Water Level" trip function to the listing of the minimum test and calibration frequencies for HPCI System actuation instrumentation included under Protective Instrument Systems (Emergency Core Cooling System - Table 4.2.1).

3. Pages 55 and 56 are revised to remove the "High Reactor Vessel Water Level" trip function from the listing of the minimum test and calibration frequencies for the HPCI and RCIC isolation instrumentation included under Protective Instrument Systems (HPCI/RCIC Isolation - Table 4.2.2).

Reason for Change

Change A

Generic Letter 83-02 [Reference (b)] addressed thirteen (13) NUREG-0737 requirements and provided NRC staff guidance on the scope of Technical Specifications which the staff would find acceptable for each respective requirement. As documented in Attachment A of Vermont Yankee's November 3, 1987 letter [Reference (e)], nine (9) of the thirteen (13) Generic Letter 83-02 items have been previously resolved. Of the four (4) items that remained open (I.A.1.3, II.K.3.3, II.K.3.13, and II.K.3.22), the respective sections of Attachment A to Reference (e) discussed Vermont Yankee's continued position that Technical Specifications for these items were not warranted. Subsequently, by letter dated December 28, 1987 [Reference (f)], Vermont Yankee committed to submit a license amendment request for RCIC restart and suction (NUREG-0737, Items II.K.3.13 and II.K.3.22) which would be consistent with Generic Letter 83-02 guidance. Accordingly, this proposed change satisfies that license amendment request commitment.

NUREG-0737, Items II.K.3.13 and II.K.3.22, required that the design of the RCIC System should be modified such that:

1. The system will restart on subsequent low water level after it has been terminated by a high water level signal;
2. RCIC System suction will automatically switchover from the condensate storage tank to the suppression pool when the condensate storage tank level is low.

References (c) and (d) provide NRC acceptance of the Vermont Yankee implemented designs to satisfy the above NUREG-0737 requirements. Reference (b) recommended that Technical Specifications be provided for the two modifications to address limiting conditions for operation and surveillance requirements for instrumentation and system operational capability. The attached revised (Pages 34a and 63) and new (Pages 49e, 49f, 60d, and 66a) Technical Specification pages incorporate limiting conditions for operation and surveillance for RCIC System actuation instrumentation.

Change B

During the process of producing proposed Technical Specifications for RCIC restart and suction (Change A as described in this letter), it became apparent that the "High Reactor Vessel Water Level" trip function was directly applicable to RCIC shutdown and restart and HPCI shutdown only, and as such is more appropriately included with limiting conditions for operation and

surveillance requirements for RCIC and HPCI Systems actuation instrumentation. The "High Reactor Vessel Water Level" trip function does not perform a HPCI or RCIC isolation function and does not need to be included with the listing of the isolation instrumentation. The attached revised Technical Specifications (Pages 42, 43, 44, 52, 55, and 56) move the "High Reactor Vessel Water Level" trip function from the HPCI and RCIC Systems isolation instrumentation tables to the table which specifies minimum test and calibration frequencies for HPCI System actuation instrumentation. This trip function is presently contained in the table which provides limiting conditions of operation requirements for HPCI actuation instrumentation (Table 3.2.1). Therefore, Table 3.2.1 is unchanged by this change request. Change A of this proposal includes the "High Reactor Vessel Water Level" trip function within the tables pertaining to RCIC System actuation instrumentation.

As described above, this change represents an administrative change to the Technical Specifications. The sections of the Technical Specifications which specify the requirements for the "High Reactor Vessel Water Level" trip function are to change, but the requirements themselves remain unchanged.

Basis for Change

Change A

1. Section 3.2 (Page 34a) has been revised, and Table 3.2.9 (Pages 49e and 49f) has been added to include limiting conditions for operation requirements for RCIC System actuation instrumentation. Table 3.2.9 lists the RCIC System instrumentation necessary to accomplish RCIC restart and suction transfer as specified in NUREG-0737, Items II.K.3.13 and II.K.3.22. Limiting conditions for operation requirements for RCIC System actuation instrumentation which are similar to those existing for the HPCI System have been added, and they provide for continued station operation in accordance with restrictions applicable to RCIC System operation which currently exist within the Vermont Yankee Technical Specifications (Section 3.5).

Table 3.2.9 includes all the RCIC actuation instrumentation listed in the typical Technical Specifications provided in Enclosure 2 to Generic Letter 83-02 [Reference (b)] except for (a) "Suppression Pool Water Level - High" and (b) "Manual Initiation." Vermont Yankee Technical Specifications do not follow standard Technical Specification format and these two actuation instrumentation parameters have not been included because of the following:

- (a) There is no direct correlation between RCIC system actuation instrumentation and suppression pool high water level. However, suppression pool high water level annunciates in the Control Room and suppression pool water level indication is included within the Technical Specifications under Post-Accident Instrumentation.

- (b) Vermont Yankee does not individually list "Manual Initiation" as actuation instrumentation within any Protective Instrument Systems. Manual initiation is verified operable during system surveillance testing and inoperable manual initiation translates to system inoperability.
2. Section 4.2 (Page 34a) has been revised, and Table 4.2.9 (Page 60d) has been added to include surveillance requirements for RCIC System actuation instrumentation described above in Item (1) under "Basis for Change." Minimum test and calibration frequencies have been added to be similar to those required for other protective instrument systems which utilize similar equipment.
 3. Page 63 has been revised and Page 66a has been added to provide a discussion of RCIC restart and suction in the Section 3.2 Bases for protective instrumentation. This discussion provides additional detail pertaining to the operation of the RCIC System.

Change B

1. Table 3.2.2 (Pages 42, 43, and 44) and Table 4.2.2 (Pages 55 and 56) have been revised to move the "High Reactor Vessel Water Level" trip function from the HPCI and RCIC Systems isolation instrumentation tables. This trip function provides for HPCI and RCIC turbine trip and RCIC restart, but is independent of either HPCI or RCIC automatic isolation circuitry. Section 3.2 Bases of the Vermont Yankee Technical Specifications discusses the HPCI/RCIC isolation instrumentation and does not include the "High Reactor Vessel Water Level" trip function. In addition, the BWR Standard Technical Specifications do not include this trip function for HPCI or RCIC isolation instrumentation. As described within this letter, the "High Reactor Vessel Water Level" trip function is addressed in the Vermont Yankee Technical Specifications under the HPCI and RCIC Systems actuation instrumentation tables.
2. Table 4.2.1 (Page 52) has been revised to add the minimum test and calibration frequencies for the "High Reactor Vessel Water Level" trip function under HPCI System actuation instrumentation. This trip function is presently included under limiting conditions for operation requirements for HPCI actuation instrumentation, but is not presently identified under surveillance requirements for this HPCI System actuation instrumentation. However, test and calibration frequencies for this trip function were always stipulated in Vermont Yankee Technical Specifications under HPCI and RCIC isolation, and they have not changed. In addition, all existing surveillance and testing procedures regarding this trip function's involvement in the operation of the HPCI System will remain unchanged. In essence, this change constitutes a paperwork change to move the listing of the Technical Specification requirements for the "High Reactor Vessel Water Level" trip function from one table to another. The requirements themselves have not changed.

Safety Evaluation

Change A

The changes proposed by this amendment request do not present any unreviewed safety questions as defined in 10CFR50.59. The changes proposed will incorporate existing procedural controls for RCIC within the Technical Specifications in accordance with NRC guidance and, as such, are considered enhancements to safety. These RCIC procedural controls are proposed to be incorporated into the Technical Specifications in response to guidance specified in Generic Letter 83-02 [Reference (b)] pertaining to NUREG-0737 Technical Specifications. Existing designs which have already been determined to be acceptable by the NRC [References (c) and (d)] are unaffected by these proposed changes. The changes proposed are strictly procedural and do not impact any FSAR safety analysis. These proposed changes do not alter system design basis, protective function, or operation. Incorporation of RCIC restart and suction transfer instrumentation into the Technical Specifications will provide additional assurance that RCIC operation is maintained within the limits determined to be acceptable.

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

Change B

The changes proposed by this amendment request do not present any unreviewed safety questions as defined in 10CFR50.59. The changes proposed will move the "High Reactor Vessel Water Level" trip function from the tables which specify limiting conditions for operation and surveillance requirements for HPCI System and RCIC System isolation instrumentation because it is not directly applicable to these system functions. It is proposed to include these limiting conditions of operation requirements for the "High Reactor Vessel Water Level" trip function with the RCIC System actuation instrumentation and to include surveillance requirements with the RCIC and HPCI actuation instrumentation. Presently, the limiting conditions of operation requirements pertaining to the "High Reactor Vessel Water Level" trip function pertaining to HPCI operation are included under HPCI System actuation instrumentation and will remain as such. Therefore, the "High Reactor Vessel Water Level" trip function will continue to be addressed in the Vermont Yankee Technical Specifications, and all existing surveillance and testing procedures regarding this trip function's involvement in the operation of the HPCI and RCIC Systems will remain unchanged. Existing designs for both HPCI and RCIC are unchanged. The changes proposed are strictly administrative and do not impact any FSAR safety analysis. This proposed change does not alter system design basis, protective function, or operation. Since the "High Reactor Vessel Water Level" trip function will still be addressed within the Vermont Yankee Technical Specifications and since existing procedures stipulating the requirements for surveillance and testing of this trip function pertaining to HPCI and RCIC operation remain unchanged, assurance that HPCI and RCIC operation are maintained within limits determined to be acceptable is still provided.

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

Significant Hazards Consideration

The standards used to arrive at a determination that a request for amendment involves no significant hazards consideration are included in the Commission's regulations, 10CFR50.92, which state that the operation of the facility in accordance with the proposed amendment would 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 the proposed changes with respect to these three criteria and demonstrates that the proposed amendment involves a no-significant-hazards consideration:

Change A

1. The incorporation of existing procedural controls for RCIC actuation within the Technical Specifications does not result in any system hardware modification or new plant configuration for operation. In addition, there is no impact on any FSAR safety analysis involving the RCIC System. Furthermore, this proposed change does not alter the design basis, protective functions, or redundancy of the original system. Therefore, it is concluded that there is not a significant increase in the probability or consequences of an accident previously evaluated.
2. The incorporation of existing procedural controls for RCIC actuation within the Technical Specifications does not reduce the operation of the RCIC System from existing requirements and it is still bounded by the assumptions used in the safety analysis. The proposed change does not result in any change in Technical Specification setpoints, plant operation, protective function, or design basis of the plant. In addition, the proposed change represents the incorporation of NUREG-0737 requirements to produce Technical Specifications for RCIC restart and suction. Therefore, it is concluded that the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.
3. The incorporation of existing procedural controls for RCIC actuation within the Technical Specifications does not affect any existing safety margins. The proposed change actually represents an increase in safety because it will provide additional assurance that RCIC System operation is maintained within the limits determined to be acceptable. Physically, RCIC System operation will not change as a result of this proposed change. Therefore, it is concluded that the proposed changes do not involve a significant reduction in a margin of safety.

The Commission has provided guidance concerning the application of standards for determining whether a significant hazards consideration exists by providing certain examples (SiFR7751, dated March 6, 1986). One of these examples (ii) of actions which involve no significant hazards consideration is a change that constitutes an additional limitation, restriction, or control not presently included in the Technical Specifications, such as a more stringent surveillance requirement. As discussed above, the proposed Technical Specifications changes concerning RCIC System actuation constitute requirements not presently included in the Technical Specifications.

Change B

1. Moving the Technical Specifications for the "High Reactor Vessel Water Level" trip function from the HPCI System and RCIC System isolation instrumentation tables and the addition of this trip function to the HPCI System actuation instrumentation surveillance table does not result in any system hardware modification or new plant configuration for operation. In addition, there is no impact on any FSAR safety analysis involving the HPCI or RCIC Systems. Furthermore, this proposed change does not alter the design basis, protective functions, or redundancy of the original systems. Limiting conditions for operation and surveillance requirements pertaining to the "High Reactor Vessel Water Level" trip function will still be addressed in the Technical Specifications under RCIC and HPCI Systems actuation. Therefore, it is concluded that there is not a significant increase in the probability or consequences of an accident previously evaluated.
2. Moving the Technical Specifications for the "High Reactor Vessel Water Level" trip function from the HPCI System and RCIC System isolation instrumentation tables and the addition of this trip function to the HPCI System actuation instrumentation surveillance table does not reduce the operation of the HPCI or RCIC Systems from existing requirements and they are still bounded by the assumptions used in the safety analysis. Although the "High Reactor Vessel Water Level" trip function is to be moved as described above, its functions regarding HPCI (turbine trip) and RCIC (turbine trip and restart) remain the same. As such, an inoperative high reactor vessel water level parameter would affect RCIC and HPCI operation and is still addressed by Technical Specification requirements pertaining to operability of these systems. In addition, the same high level trip function is to be included in the Vermont Yankee Technical Specifications under RCIC actuation instrumentation and is presently included in the Technical Specifications under HPCI actuation instrumentation (limiting conditions of operation). The proposed change does not result in any change in Technical Specification setpoints, plant operation, protective function, or design basis of the plant. Therefore, it is concluded that the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Moving the Technical Specifications for the "High Reactor Vessel Water Level" trip function from the HPCI System and RCIC System isolation instrumentation tables and the addition of this trip function to the HPCI System actuation instrumentation surveillance table does not affect any existing safety margins. Operation of these systems will remain the same. This change, when combined with Change A as described in this letter, essentially moves the listing of the trip function from portions of the Technical Specification where it is not directly applicable to the sections where it is directly applicable. All existing functions of the "High Reactor Vessel Water Level" trip relative to HPCI and RCIC operation are still subject to existing Technical Specification requirements for HPCI and RCIC operability. All existing requirements for surveillance and testing of these systems relevant to the high reactor water level parameter are maintained. Assurance that both HPCI and RCIC Systems operate within limits determined to be acceptable continues to be provided. Therefore, it is concluded that the proposed changes do not involve a significant reduction in a margin of safety.

The Commission has provided guidance for the application of the standards in 10CFR50.92 by providing certain examples (51FR7751, dated March 6, 1986) of actions likely to involve no significant hazards consideration. One of these examples (i) is a purely administrative change to the Technical Specifications; for example, a change to achieve consistency throughout the Technical Specifications, correction of an error, or a change in nomenclature. Proposed Change B falls within the scope of this Commission example since it involves moving, but not deleting, the subject trip function within the Technical Specifications.

Therefore, we conclude that these proposed changes (Changes A and B) do not constitute a significant hazards consideration, as defined in 10CFR50.92(c).

Fee Determination

In accordance with the provisions of 10CFR170.12, an application fee of \$150.00 is enclosed.

Schedule of Change

These proposed changes will be incorporated into the Vermont Yankee Technical Specifications as soon as practicable following receipt of your approval.

Very truly yours,

W. P. Murphy

Frank M. McLean

A circular notary seal. The outer ring contains the text "DIANE M. MCCUE" at the top and "WINDHAM COUNTY, VERMONT" at the bottom. The inner circle contains the text "NOTARY" and "PUBLIC" stacked vertically.