

October 18, 2001

Mr. Michael A. Balduzzi
Senior Vice President and Chief Nuclear Officer
Vermont Yankee Nuclear Power Corporation
185 Old Ferry Road
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SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - ISSUANCE OF
AMENDMENT RE: REVISED ALLOWED OUTAGE TIME (TAC NO. MB2719)

Dear Mr. Balduzzi:

The Commission has issued the enclosed Amendment No. 205 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to your application dated August 14, 2001, as supplemented on August 21, 2001.

The amendment would extend the allowed outage time (AOT) for the High Pressure Coolant Injection and Reactor Core Isolation Cooling systems from 7 days to 14 days. Requirements were added to immediately ensure the availability of alternate means of high pressure coolant makeup. Also, clarifying changes were made to Technical Specification (TS) Sections 3.5.E.2 and 3.5.G.2 by reformatting the section to make the nomenclature consistent regarding HPCI and the Automatic Depressurization System as being systems, not subsystems.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/RA/

Robert M. Pulsifer, Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures: 1. Amendment No. 205 to
License No. DPR-28
2. Safety Evaluation

cc w/encls: See next page

Vermont Yankee Nuclear Power Station

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Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-271

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License No. DPR-28

2. Safety Evaluation

cc w/encls: See next page

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VERMONT YANKEE NUCLEAR POWER CORPORATION

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 205
License No. DPR-28

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the Vermont Yankee Nuclear Power Corporation (the licensee) dated August 14, 2001, as supplemented by letter dated August 21, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-28 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 205, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: October 18, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 205

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

Insert

106

106

107

107

108

108

111a

111a

111b

112

112

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 205 TO FACILITY OPERATING LICENSE NO. DPR-28
VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION
DOCKET NO. 50-271

1.0 INTRODUCTION

By letter dated August 14, 2001, as supplemented by letter dated August 21, 2001, the Vermont Yankee Nuclear Power Corporation (the licensee) submitted a request to amend the Vermont Yankee Nuclear Power Station (VY) Technical Specifications (TSs). The proposed amendment would revise the TSs to extend the allowed outage time (AOT) for the High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) systems from 7 days to 14 days. Requirements were added to immediately ensure the availability of alternate means of high pressure coolant makeup. Also, clarifying changes were made to TS Sections 3.5.E.2 and 3.5.G.2 by reformatting the TSs to make the nomenclature consistent regarding HPCI and the Automatic Depressurization System (ADS) and by separating each of these TSs into two separate sections.

2.0 BACKGROUND

The current VY TSs require that the low pressure Emergency Core Cooling System (ECCS) injection and spray subsystems in conjunction with the ADS and RCIC be operable whenever HPCI is inoperable and HPCI must be operable whenever RCIC is inoperable. The HPCI system is provided to adequately cool the core for all pipe breaks smaller than those for which the low pressure ECCS subsystems can protect the core when the reactor pressure remains above 150 psig. The RCIC system is provided to maintain water level in the reactor vessel in the event of a main steamline isolation and complete loss of outside power without the use of the ECCS. Both HPCI and RCIC are capable of providing water inventory in the reactor vessel when the vessel is pressurized.

This change is consistent with NUREG-1433, Revision 1, "Standard Technical Specification, General Electric Plants, BWR/4," dated April 1995. Both NUREG-1433, Revision 1 and the licensee reference a memorandum from R. L. Baer (NRC) to V. Stello, Jr. (NRC), "Recommended Interim Revisions to LCOs for ECCS Components," dated December 1, 1975. This is a study attempting to develop LCOs for ECCS components that are consistent and less arbitrary than values in the TS at that time.

3.0 EVALUATION

The licensee proposes to extend the allowed outage time (AOT) for HPCI and RCIC from 7 to 14 days to provide additional time to perform testing or to make repairs without significantly affecting overall plant safety. This change would also reduce the potential of unnecessarily cycling the plant. A new TS section will be added to both the HPCI and RCIC Limiting Conditions for Operation (LCO) to include a statement regarding an immediate verification of operability by administrative means of RCIC when HPCI is inoperable and of HPCI when RCIC is inoperable. Although RCIC is not classified as a safety system, RCIC performs a similar function as HPCI, but has reduced makeup capability. Credit for RCIC at VY is not taken for their licensing basis LOCA analysis and is not an engineered safety feature.

The 14-day completion time is based on a reliability study¹ that evaluated the impact on ECCS availability, assuming various components and subsystems were taken out of service and has been found to be acceptable through operating history. The results were used to calculate the average availability of ECCS equipment needed to mitigate the consequences of a loss of coolant accident as a function of AOTs.

Because of the similar functions of HPCI and RCIC, the AOTs determined for HPCI are also applied to RCIC. This change is consistent with NUREG-1433, Revision 1, "Standard Technical Specification, General Electric Plants, BWR/4," dated April 1995. To provide this consistency the licensee also added new TS sections (TSs 3.5.E.2.a and 3.5.G.2.a) that require that HPCI or RCIC be immediately verified by administrative means to be considered operable. This administrative means could be by examining logs or other information to determine whether HPCI or RCIC is out of service for maintenance or other reasons. However, unlike NUREG-1433, VY has additional conservatism in that VY does not allow for one low pressure pump to be inoperable when HPCI is inoperable.

VY has demonstrated high reliability for RCIC and HPCI. When HPCI is inoperable, adequate core cooling is available by the operability of the diverse low pressure ECCS systems.

Because of the above information, changing the AOT from 7 days to 14 days is acceptable.

HPCI and ADS designations were changed from "subsystems" to "systems" to be consistent within the TS. HPCI and ADS are single train systems and do not have redundant or duplicate subsystems within systems. Also TS 3.5.E.2 and 3.5.G.2 are reformatted to accommodate the new TS paragraphs a and b. These are administrative changes, and are, therefore, acceptable.

The licensee also changed the associated bases to reflect the modifications to TS 3.5.E.2 and 3.5.G.2 and the staff has no objection to these changes.

¹ Memorandum from R. L. Baer (NRC) to V. Stello, Jr. (NRC), "Recommended Interim Revisions to LCOs for ECCS Components," December 1, 1975.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Vermont State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (66 FR 48152). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Robert Pulsifer

Date: October 18, 2001