August 21, 2002

Mr. Jay K. Thayer Site Vice President - Vermont Yankee Entergy Nuclear Vermont Yankee, LLC P.O. Box 0500 185 Old Ferry Road Brattleboro, VT 05302-0500

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - ISSUANCE OF

AMENDMENT RE: PRIMARY CONTAINMENT ISOLATION VALVES (TAC NO.

MB3431)

#### Dear Mr. Thayer:

The Commission has issued the enclosed Amendment No. 210 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to a Vermont Yankee Nuclear Power Corporation (VYNPC) application dated November 20, 2001, as supplemented on March 28, 2002. On July 31, 2002, VYNPC's interest in the license was transferred to Entergy Nuclear Vermont Yankee, LLC (ENVY) and Entergy Nuclear Operations, Inc. (ENO). On August 6, 2002, ENO requested that the U.S. Nuclear Regulatory Commission (NRC) continue to review and act on all requests before the Commission which had been submitted by VYNPC before the transfer. Accordingly, the NRC staff has acted upon the request.

The amendment moves Table 4.7.2, "Primary Containment Isolation Valves" and references, to the Technical Requirements Manual; changes surveillance requirement 4.7.B.1.b to reflect that the Standby Gas Treatment system duct heater needs to meet relative humidity design basis requirements; adds Section 3.7.E, "Reactor Building Automatic Ventilation System Isolation Valves," to the Table of Contents; removes wording in 3.5.A.4.a and b referencing a one-time 30-day Limiting Condition for Operation; and, makes administrative changes to Sections 5.3 and 6.4. This amendment also revises the applicable Bases pages.

J. Thayer -3-

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> 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. 210 to

License No. DPR-28
2. Safety Evaluation

cc w/encls: See next page

#### Vermont Yankee Nuclear Power Station

CC:

Regional Administrator, Region I U. S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406

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Mr. Michael H. Dworkin, Chairman Public Service Board State of Vermont 112 State Street Montpelier, VT 05620-2701

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

Sincerely,

#### /RA/

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

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DISTRIBUTION:

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J. Zimmerman OGC C. Anderson, RI

\*\*See previous concurrence.

Accession No.: ML021330012 \*SE input received 4/17/02. No major changes made.

| OFFICE | PDI-2/PM  | PDI-2/LA | SPLB*    | OGC**    | PDI-2/SC(A) |
|--------|-----------|----------|----------|----------|-------------|
| NAME   | RPulsifer | TClark   | RLobel   | JHeck    | JZimmerman  |
| DATE   | 8/15/02   | 8/16/02  | 04/17/02 | 06/05/02 | 8/20/02     |

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# ENTERGY NUCLEAR VERMONT YANKEE, LLC

#### AND ENTERGY NUCLEAR OPERATIONS, INC.

#### **DOCKET NO. 50-271**

#### VERMONT YANKEE NUCLEAR POWER STATION

#### AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 210 License No. DPR-28

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by the Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (the licensees) dated November 20, 2001, as supplemented on March 28, 2002, 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) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 210, 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 90 days (including issuance of the Technical Requirements Manual for use by licensee personnel). In addition, the licensee shall include the relocated information in the Updated Final Safety Analysis Report submitted to the NRC, pursuant to 10 CFR 50.71(e), as was described in the licensee's application dated November 20, 2001, and as evaluated in the staff's safety evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Jacob I. Zimmerman, Acting 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: August 21, 2002

# ATTACHMENT TO LICENSE AMENDMENT NO. 210

### FACILITY OPERATING LICENSE NO. DPR-28

# **DOCKET NO. 50-271**

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

| Remove | Insert |
|--------|--------|
| iii    | iii    |
| 75     | 75     |
| 101    | 101    |
| 102    | 102    |
| 152    | 152    |
| 158    | 158    |
| 159    | 159    |
| 160    | 160    |
| 161    | 161    |
| 162    | 162    |
| 166a   | 166a   |
| 253    | 253    |
| 257    | 257    |

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 210 TO FACILITY OPERATING LICENSE NO. DPR-28

# ENTERGY NUCLEAR VERMONT YANKEE, LLC AND ENTERGY NUCLEAR OPERATIONS, INC. VERMONT YANKEE NUCLEAR POWER STATION DOCKET NO. 50-271

#### 1.0 INTRODUCTION

By letter dated November 20, 2001, as supplemented on March 28, 2002, the Vermont Yankee Nuclear Power Corporation (VYNPC or the licensee) submitted a request to amend the Vermont Yankee Nuclear Power Station Technical Specifications (TSs). On July 31, 2002, VYNPC's interest in the license was transferred to Entergy Nuclear Vermont Yankee, LLC (ENVY) and Entergy Nuclear Operations, Inc. (ENO). On August 6, 2002, ENO requested that the U.S. Nuclear Regulatory Commission (NRC) continue to review and act on all requests before the Commission which had been submitted by VYNPC before the transfer. Accordingly, the NRC staff has acted upon the request.

The proposed amendment would revise the TSs to move Table 4.7.2, "Primary Containment Isolation Valves" and references, to the Technical Requirements Manual (TRM); change Surveillance Requirement (SR) 4.7.B.1.b to reflect that the Standby Gas Treatment system duct heater needs to meet relative humidity design basis requirements; add Section 3.7.E, "Reactor Building Automatic Ventilation System Isolation Valves," to the Table of Contents; remove wording in 3.5.A.4.a and b referencing a one-time 30-day Limiting Condition for Operation; and, make administrative changes to Sections 5.3 and 6.4. This amendment also revises the applicable Bases pages. The March 28, 2002, supplement was within the scope of the original application and did not change the staff's proposed no significant hazards consideration determination.

#### 2.0 REGULATORY EVALUATION

The staff finds that in Attachment 1 of its submittal, the licensee identified the applicable regulatory requirements. The regulatory requirements for which the staff based its acceptance are Generic Letter (GL) 91-08, "Removal of Component Lists from Technical Specifications" and Title 10 of the *Code of Federal Regulations* (10 CFR) Part 100, "Reactor Site Criteria."

#### 3.0 TECHNICAL EVALUATION

#### 3.1 Relocation of the TS Table Listing Primary Containment Isolation Valves

#### 3.1.1 Background Concerning the Relocation of TS Component Lists

Following the issuance of GL 84-13, "Technical Specifications for Snubbers," which provided guidance to licensees proposing to remove lists of snubbers from the TSs, many licensees began submitting plant-specific proposals to the NRC requesting the removal of other component lists from the TSs as well. Nuclear industry groups further recommended to the NRC that the removal of component lists from the TSs be considered generically, as a potential TS improvement. In response to these requests, the NRC evaluated the necessity for the inclusion of component lists in the TSs, and subsequently issued GL 91-08. Based upon the experiences of both the NRC staff and the nuclear industry, GL 91-08 provided general guidelines for licensees proposing to remove various component lists from the TSs.

Similar to other generic communications from the NRC concerning the relocation of TS requirements, GL 91-08 states that the relocation of TS component lists is not meant to alter current regulatory requirements. Rather, the relocation process is intended to make the TSs more concise and to allow a less burdensome regulatory process to be applied to the future revision of requirements approved for relocation by the NRC. GL 91-08 provides specific guidance which encourages the relocation of the TS listing of primary containment isolation valves (PCIVs). Consistent with this guidance, the current versions of the Standard Technical Specifications do not include tables of PCIVs.

#### 3.1.2 Proposed TS Changes to Relocate PCIV Listing

The licensee has proposed to remove current TS Table 4.7.2, entitled "Primary Containment Isolation Valves," from the TSs and to relocate this listing of PCIVs and related design-basis information to the TRM. To support the removal of TS Table 4.7.2, the licensee has proposed to revise SR 4.7.D.1.a, which requires periodic isolation testing of automatic PCIVs. Specifically, the licensee's proposed revision to SR 4.7.D.1.a would remove its current reference to the PCIV closure times listed in TS Table 4.7.2. Additionally, a note referencing TS Table 4.7.2 would be removed from Section 3.2 of the TS Bases, entitled "Protective Instrumentation Bases."

# 3.1.3 Evaluation of Proposed TS Changes to Relocate PCIV Listing

The NRC staff has reviewed the proposed changes to the Vermont Yankee TSs described above in Section 3.1.2. Based upon its review, the staff has concluded that the relocation of TS Table 4.7.2 to the TRM would be consistent with the guidance of GL 91-08 regarding removal of the list of PCIVs from the TSs. As stated in GL 91-08, "[t]he removal of component lists [from TS] is acceptable because it does not alter existing TS requirements or those components to which they apply." Though the relocation of TS Table 4.7.2 to the TRM entails a relaxation of the regulatory control over future revision to the design-basis of Vermont Yankee's PCIVs, as indicated in GL 91-08 and noted above, experience has shown that relocation of component lists can be justified. Furthermore, the licensee has stated in its submittal dated November 20, 2001, that the revision of its TRM is governed by the regulations at

10 CFR 50.59. Therefore, the NRC staff has assurance that an appropriate degree of regulatory control would be maintained over the PCIVs' design-basis after the proposed relocation of TS Table 4.7.2 to the TRM. The licensee's proposed modification to SR 4.7.D.1.a would remove its current reference to the PCIV closure times listed in TS Table 4.7.2 in a manner consistent with the guidance of GL 91-08. Specifically, GL 91-08 states that PCIV closure times may be removed from the TSs because "[t]he removal of valve closure times... would not alter the TS requirements to verify that valve stroke times are within their limits." Therefore, the NRC staff finds the proposed TS changes associated with the relocation of the TS table of PCIVs to the TRM to be acceptable.

#### 3.2 Reduction of the Required Standby Gas Treatment System Inlet Heater Power

#### 3.2.1 <u>Background Concerning the Standby Gas Treatment System Inlet Heater</u>

Following a design-basis accident, the primary safety function of the standby gas treatment system (SBGTS) is to ensure that any airborne radioactivity which might leak from the primary containment into the secondary containment is filtered and adsorbed prior to being exhausted to the environment. The design function of the SBGTS inlet heater is to increase the temperature of the gaseous flow stream influent upon the SBGTS charcoal filtration beds, in order to maintain a relative humidity of no greater than 70% at these charcoal beds. As increased moisture levels tend to decrease the efficiency of the charcoal beds' adsorption of radioactive methyl iodide from the plant's airborne effluent, an adequate SBGTS inlet heater power is required to ensure the licensee's compliance with the siting criteria limits of 10 CFR Part 100, as demonstrated in the Vermont Yankee accident analysis.

#### 3.2.2 Proposed TS Change to Derate the SBGTS Inlet Heater Power

The licensee has proposed to modify SR 4.7.B.1.b such that the required SBGTS inlet heater power would be specified as 7.1 kilowatts (kW), rather than the currently specified 9 kW. The licensee would also modify TS Bases Section 3.7 to reflect the proposed change to SR 4.7.B.1.b.

#### 3.2.3 Evaluation of Proposed TS Change to Derate SBGTS Inlet Heater Power

The SBGTS inlet heater power specified in SR 4.7.B.1.b must be sufficient to ensure that a relative humidity not exceeding 70% is maintained at the SBGTS charcoal filtration beds, in accordance with Vermont Yankee's accident analysis. In its initial submittal, dated November 20, 2001, the licensee stated that the current heater power specification of 9 kW in SR 4.7.B.1.b is based on the nominal rating of the heater, and that this power level is not necessary to ensure that the design-basis relative humidity for the charcoal beds is not exceeded.

The NRC staff subsequently requested further justification concerning the appropriateness of the licensee's proposed heater power of 7.1 kW, and, in a supplementary submittal dated March 28, 2002, the licensee submitted for NRC review the calculation used to derive this value. The NRC staff then confirmed that the licensee's calculation was performed according to standard thermodynamic and psychrometric methodology, and that the inputs to the calculation, which include the initial condition assumptions, the SBGTS design parameters, and the instrument uncertainty analysis, contain appropriate conservatism. Therefore, the NRC

staff finds the licensee's proposed TS change to specify a required SBGTS inlet heater power of 7.1 kW, as previously described in Section 3.2.2, to be acceptable.

#### 3.3 Administrative TS Changes

The licensee has proposed to insert an index listing for TS Section 3.7.E into the Table of Contents for the Vermont Yankee TS. Though the Limiting Conditions for Operation (LCOs) and SRs for the Reactor Building Automatic Ventilation System Isolation Valves contained in TS Section 3.7.E were implemented following NRC approval of License Amendment No. 197 on March 23, 2001, the licensee did not propose in that amendment application, to update the TSs Table of Contents to reflect the creation of this new TS Section. As the addition of an index listing for TS 3.7.E to the TS Table of Contents would accurately reflect the current organization of the Vermont Yankee TS, the staff finds it to be acceptable.

The licensee has proposed to remove current LCO 3.5.A.4.a and to revise LCO 3.5.A.4.b, which provide requirements for the Low Pressure Coolant Injection (LPCI) System. LCO 3.5.A.4.a was added to the Vermont Yankee TS following the approval of License Amendment No. 118 on January 26, 1990. LCO 3.5.A.4.a permits a conditional 30-day allowed outage time for a LPCI subsystem made inoperable due to a failure in its associated Uninterruptible Power Supply during Vermont Yankee's 1989/90 operating cycle. In addition, License Amendment No. 118 revised LCO 3.5.A.4.b to be consistent with the conditional 30-day allowed outage time specified in LCO 3.5.A.4.a for the 1989/90 operating cycle. Therefore, as LCO 3.5.A.4.a does not provide requirements relevant to the current or future operation of Vermont Yankee, the staff finds its removal acceptable. For the same reason, the staff also finds acceptable the revision to LCO 3.5.A.4.b to remove its current reference to the obsolete LCO 3.5.A.4.a.

The licensee has proposed to revise TS 5.3, entitled "Reactor Vessel," because the listed, specific subsection and table Final Safety Analysis Report (FSAR) references are not accurate. TS 5.3 specifies the design features of the reactor vessel by referencing the description and design codes of the reactor vessel provided by the FSAR. The licensee has proposed a broader FSAR reference to correct this problem. Therefore, the staff finds this proposed change to TS 5.3 to be acceptable.

The licensee has proposed to revise TS 6.4.I, which concerns procedural requirements for the licensee's Off-Site Dose Calculation Manual (ODCM). TS 6.4.I currently states that "Written procedures shall be established, implemented, and maintained concerning... Off-Site Dose Calculation Manual in-plant implementation." The licensee has proposed to remove the term "in-plant" from TS 6.4.I, because the inclusion of this term could allow a narrow and spurious interpretation that TS 6.4.I applies only to ODCM procedural requirements concerning the actual plant site. Therefore, the staff finds this proposed change to TS 6.4.I to be acceptable.

#### 3.4 Staff Review Results

The NRC staff has reviewed the proposed changes to the Vermont Yankee TSs previously described in Section 3.0. Based upon the foregoing evaluation, the staff has concluded that these proposed TS changes are acceptable.

#### 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 and changes surveillance requirements. 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 66474). 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: John Lehning

Date: August 21, 2002