



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 9, 2011

Site Vice President  
Entergy Nuclear Operations, Inc.  
Vermont Yankee Nuclear Power Station  
P.O. Box 250  
Governor Hunt Road  
Vernon, VT 05354

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - ISSUANCE OF  
AMENDMENT RE: ADMINISTRATIVE CHANGES (TAC NO. ME3783)

Dear Sir or Madam:

The Commission has issued the enclosed Amendment No. 245 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to your application dated April 13, 2010, as supplemented by letter dated February 2, 2011.

The proposed amendment would modify Technical Specification (TS) to update the Table of Contents and the Applicability and Objective portions of TS 4.12 as a result of changes made by License Amendment Nos. 230 and 239 and to revise wording in TS 3.7.A.8. The proposed changes are considered administrative in nature and do not materially change any technical requirement.

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,

A handwritten signature in cursive script that reads "James Kim".

James Kim, Project Manager  
Plant Licensing Branch 1-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures:

1. Amendment No. 245 to License No. DPR-28
2. Safety Evaluation

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ENERGY NUCLEAR VERMONT YANKEE, LLC  
AND ENERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER STATION  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 245  
License No. DPR-28

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (the licensee) dated April 13, 2010, as supplemented by letter dated February 2, 2011, 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. 245, are hereby incorporated in the license. Entergy Nuclear Operations, Inc. 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 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Nancy L. Salgado, Chief  
Plant Licensing Branch 1-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the License and  
Technical Specifications

Date of Issuance: February 9, 2011

ATTACHMENT TO LICENSE AMENDMENT NO. 245

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following page of the Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove  
3

Insert  
3

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

Remove  
ii  
iv  
151  
229

Insert  
ii  
iv  
151  
229

- E. Entergy Nuclear Operations, Inc., pursuant to the Act and 10 CFR Parts .30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility.
3. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

A. Maximum Power Level

Entergy Nuclear Operations, Inc. is authorized to operate the facility at reactor core power levels not to exceed 1912 megawatts thermal in accordance with the Technical Specifications (Appendix A) appended hereto.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 245 are hereby incorporated in the license. Entergy Nuclear Operations, Inc. shall operate the facility in accordance with the Technical Specifications.

C. Reports

Entergy Nuclear Operations, Inc. shall make reports in accordance with the requirements of the Technical Specifications.

- D. This paragraph deleted by Amendment No. 226.

E. Environmental Conditions

Pursuant to the Initial Decision of the presiding Atomic Safety and Licensing Board issued February 27, 1973, the following conditions for the protection of the environment are incorporated herein:

VYNPS

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- ii. 24 Hours prior to reducing thermal power to less than 15% rated thermal power prior to the next shutdown.
- 8. If Specification 3.7.A.1 through 3.7.A.6 are not met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown condition within 24 hours.
- 9. If Specification 3.7.A.7 cannot be met, and the primary containment oxygen concentration cannot be restored to less than 4% oxygen by volume within the subsequent 24 hour period, reactor thermal power shall be less than 15% rated thermal power within the next 8 hours.

#### 10. Drywell/Suppression Chamber d/p

- a. Differential pressure between the drywell and suppression chamber shall be maintained  $>1.7$  psid while in the RUN MODE during the time period:
  - i. From 24 hours after thermal power is greater than 15% rated thermal power following startup, to
  - ii. 24 hours prior to reducing thermal power to less than 15% rated thermal power prior to the next shutdown,
  - iii. Except as specified in 3.7.A.10.b.

### 4.7 SURVEILLANCE REQUIREMENTS

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#### 10. Drywell/Suppression Chamber d/p

- a. The differential pressure between the drywell and suppression chamber shall be recorded once per shift.
- b. The operability of the low differential pressure alarm shall be verified once per week.



3.12 LIMITING CONDITIONS FOR  
OPERATION

3.12 REFUELING AND SPENT FUEL HANDLING

Applicability:

Applies to fuel handling, core reactivity limitations, and spent fuel handling.

Objective:

To assure core reactivity is within capability of the control rods, to prevent criticality during refueling, and to assure safe handling of spent fuel casks.

Specification:

A. Refueling Interlocks

The reactor mode switch shall be locked in the "Refuel" position during core alterations and;

1. The refueling interlocks shall be operable during in-vessel fuel movement for the equipment utilized in moving fuel.

If one or more of the required refueling interlocks are inoperable;

Immediately suspend fuel movement with equipment associated with the inoperable interlock(s),

-or-

Immediately insert a control rod withdrawal block and verify all control rods are fully inserted.

2. The refueling interlocks shall be operable except as specified in Specification 3.12.D and 3.12.E.

4.12 SURVEILLANCE REQUIREMENTS

4.12 REFUELING AND SPENT FUEL HANDLING

Applicability:

Applies to the periodic testing of those interlocks and instruments used during refueling.

Objective:

To verify the operability of instrumentation and interlocks used in refueling.

Specification:

A. Refueling Interlocks

Prior to any fuel handling, with the Head off the reactor vessel, the following required refueling interlock inputs shall be functionally tested once every 7 days:

- a. All-rods-in;
- b. Refuel platform position;
- c. Refuel platform fuel grapple, fuel loaded;
- d. Refuel platform frame mounted hoist, fuel loaded;
- e. Refuel platform monorail mounted hoist, fuel loaded.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 245 TO FACILITY OPERATING LICENSE NO. DPR-28

ENERGY NUCLEAR VERMONT YANKEE, LLC  
AND ENERGY NUCLEAR OPERATIONS, INC.  
VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

1.0 INTRODUCTION

By letter dated April 13, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML101100462), as supplemented by letter dated February 2, 2011 (ML110390508) Entergy Nuclear Operations, Inc. (the licensee) submitted a request to amend the Vermont Yankee Nuclear Power Station (VY) Technical Specification (TS). The amendment would update the Table of Contents (TOC) and the Applicability and Objective portions of TS 4.12 as a result of changes made by License Amendment Nos. 230 and 239 and to revise wording in TS 3.7.A.8. The proposed changes are considered administrative in nature and do not materially change any technical requirement.

The supplement letter dated February 2, 2011, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the Nuclear Regulatory Commission (NRC) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on June 29, 2010 (75 FR 37474).

The current Vermont Yankee TS 3.7.A.8 states:

If Specification 3.7.A.1 through 3.7.A.6 cannot be met, an orderly shutdown shall be initiated immediately and the reactor shall be in a cold shutdown within 24 hours.

The proposed Vermont Yankee TS 3.7.D.2 would state:

If Specification 3.7.A.1 through 3.7.A.6 are not met, an orderly shutdown shall be initiated and the reactor shall be in a cold shutdown within 24 hours.

2.0 REGULATORY EVALUATION

The NRC staff applicable regulatory requirements are based Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR) as follows:

"Technical specifications", 50.36(c)(2) "*Limiting conditions for operation*" (i) Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.

The NRC staff review of the requested TS changes are based on the following general design criteria (GDC) in 10 CFR 50 Appendix A:

GDC 16, "Containment design," insofar as it requires that the containment and associated systems be designed to establish an essentially leak tight barrier against the uncontrolled release of radioactivity to the environment, and to assure that the containment design conditions important to safety are not exceeded as long as postulated accident conditions require.

### 3.0 TECHNICAL EVALUATION

The change to revise the TOC to reflect that TS 3/4.6.1 and TS 3/4.12.G are no longer contained in the TS is an administrative change as the relocation of TS 3/4.6.1 and TS 3/4.12.G to the VY Technical Requirements Manual (TRM) were previously approved by the NRC License Amendment Nos. 230 and 239 (References (1) and (2)), respectively. Similarly, the revision of the Applicability and Objective portions of TS 4.12.G to remove reference to the testing and operability of the reactor building crane is an administrative change as the relocation of TS 3/4.12.G to the VY TRM was approved by License Amendment No. 239 (Reference (2)). This was an oversight in the previous amendments. VY identified these issues and entered them into the Corrective Action Process.

The change to revise TS 3.7.A.8 would reword the requirement that an orderly shutdown be initiated immediately in the event that primary containment specifications 3.7.A.1 through 3.7.A.6 cannot be met. The requirement to "immediately" initiate a reactor shutdown is considered unnecessary as it could lead to undesired manipulations of plant equipment in order to meet the intent of the word "immediately" in the current TS. Removing the requirement to immediately initiate a reactor shutdown would allow for an assessment of plant status and necessary planning of the required reactor shutdown to the cold shutdown condition within 24 hours. Ability to reach the cold shutdown condition is unaffected by the removal of the term "immediately" as it takes considerably less than 24 hours. This is consistent with the approach used in the Standard Technical Specifications, NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 3 for defining conditions and required actions for an inoperable primary containment. Also, replacing the word "cannot" with "are not" is consistent with the intent of 10 CFR 50.36(c)(2) which uses the term "is not" for defining actions to be taken when a limiting condition for operation "is not" met ("are not" is the plural of "is not"). This change makes the TS consistent with the intent of the regulation.

After reviewing the licensee's application, the NRC staff has determined that the changes are considered administrative in nature and do not materially change any technical requirements. Therefore, the proposed 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 SRs. 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 (75 FR 37474). 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.

## 7.0 REFERENCES

1. Letter, USNRC to Entergy, "Vermont Yankee Nuclear Power Station - Issuance of Amendment RE: Adoption of Technical Specification Task Force (TSTF) Change TSTF-372, The Addition of Limiting Condition for Operation (LCO) 3.0.8 on the Inoperability of Snubbers (TAC No. MD1664)," NVY 07-028, dated March 26, 2007.
2. Letter, USNRC to Entergy, "Vermont Yankee Nuclear Power Station- Issuance of Amendment RE: Relocation of Reactor Building Crane Technical Specification (TAC No. MD9725)," NVY 09-077, dated July 13, 2009.

Principal Contributor: J. Kim

Date: February 9, 2011

February 9, 2011

Site Vice President  
Entergy Nuclear Operations, Inc.  
Vermont Yankee Nuclear Power Station  
P.O. Box 250  
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Sincerely,

*/ra/*

James Kim, Project Manager  
Plant Licensing Branch 1-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures:

1. Amendment No. 245 to License No. DPR-28
2. Safety Evaluation

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