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

July 6, 2009

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: TESTING AND INSPECTION OF SUPPRESSION CHAMBER-TO-DRYWELL VACUUM BREAKERS (TAC NO. ME0767)

Dear Sir or Madam:

The Commission has issued the enclosed Amendment No. 238 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to your application dated February 24, 2009.

The amendment would revise the Technical Specification (TS) Surveillance Requirement (SR) that governs operability testing of the pressure suppression chamber-drywell vacuum breakers to incorporate the SR contained within the Standard Technical Specifications (STS), NUREG-1433 and delete the SR that requires inspection of the pressure suppression chamber-drywell vacuum breakers. This requirement is replaced with the STS SR 3.6.1.8.2 to perform operability testing within 12hours after the discharge of steam into the suppression chamber from the safety/relief valves or following operation that causes any of the vacuum breakers to open.

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,

James Kim

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

Docket No. 50-271

Enclosures:
1. Amendment No.238 to
License No. DPR-28
2. Safety Evaluation

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NUCLEAR REGULATORY COMMISSION
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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. 238
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 February 24, 2009, 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. 238 , 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

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

Attachment:
Changes to the License and
Technical Specifications

Date of Issuance: July 6, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 238

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	Insert
3	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 contain marginal lines indicating the areas of change.

Remove	Insert
149	149
150	150

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.238 are hereby incorporated in the license. Entergy Nuclear Operations, Inc. snail 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:

3.7 LIMITING CONDITIONS FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS
line is verified to be closed and conditions required by 3.7.D.2 are met.	
6. Pressure Suppression Chamber - Drywell Vacuum Breakers	6. Pressure Suppression Chamber - Drywell Vacuum Breakers
a. When primary containment is required, all suppression chamber - drywell vacuum breakers shall be operable except during testing and as stated in Specifications 3.7.A.6.b and c, below. Suppression chamber - drywell vacuum breakers shall be considered operable if:	a. Periodic Operability Tests Operability testing of the vacuum breakers shall be in accordance with Specification 4.6.E and within 12 hours after any discharge of steam to the suppression chamber from the safety/relief valves and within 12 hours following an operation that causes any of the vacuum breakers to open. Operability of the corresponding position switches and position indicators and alarms shall be verified monthly and following any maintenance.
(1) The valve is demonstrated to open fully with the applied force at all valve positions not exceeding that equivalent to 0.5 psi acting on the suppression chamber face of the valve disk.	b. Refueling Outage Tests (1) All suppression chamber - drywell vacuum breaker position indication and alarm systems shall be calibrated and functionally tested.
(2) The valve can be closed by gravity, when released after being opened by remote or manual means, to within not greater than the equivalent of 0.05 inch at all points along the seal surface of the disk.	(2) Deleted

3.7 LIMITING CONDITIONS FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS
(3) The position alarm system will annunciate in the control room if the valve opening exceeds the equivalent of 0.05 inch at all points along the seal surface of the disk.	
b. Up to two (2) of the ten (10) suppression chamber - drywell vacuum breakers may be determined to be inoperable provided that they are secured, or known to be, in the closed position.	(3) A drywell to suppression chamber leak rate test shall demonstrate that with an initial differential pressure of not less than 1.0 psi, the differential pressure decay rate shall not exceed the equivalent of the leakage rate through a 1-inch orifice.
c. Reactor operation may continue for fifteen (15) days provided that at least one position alarm circuit for each vacuum breaker is operable and each suppression chamber - drywell vacuum breaker is physically verified to be closed immediately and daily thereafter.	
7. Oxygen Concentration	7. Oxygen Concentration
a. The primary containment atmosphere shall be reduced to less than 4 percent oxygen by volume with nitrogen gas while in the RUN MODE during the time period:	The primary containment oxygen concentration shall be measured and recorded on a weekly basis.
i. From 24 hours after thermal power is greater than 15% rated thermal power following startup, to	

UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO.238 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 application dated February 24, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090620391), Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (the licensee) submitted a request to amend the Vermont Yankee Nuclear Power Station (Vermont Yankee or VY) Technical Specifications (TSs). The proposed change would modify the Vermont Yankee TSs Surveillance Requirements (SR) that govern testing of the pressure suppression chamber-to-drywell vacuum breakers. The proposed changes (1) incorporate the SR included in the boiling-water reactor (BWR) Standard Technical Specifications (STS) concerning testing of the vacuum breakers following any release of energy to the suppression pool, and (2) delete a requirement to inspect at least two suppression chamber-to-drywell vacuum breakers during each refueling outage.

2.0 REGULATORY EVALUATION

Vermont Yankee Principal Design Criterion 11 states:

> It shall be possible to test primary containment integrity and leak tightness on a periodic basis.

The purpose of the suppression chamber-to-drywell vacuum breakers is to ensure structural integrity of the primary containment by limiting the pressure difference between the suppression chamber and the drywell.

Vermont Yankee has ten suppression chamber-to-drywell vacuum breakers. Operation may continue with two of these inoperable provided that they are secured or known to be in the closed position (Vermont Yankee TS 3.7.6.b).

3.0 TECHNICAL EVALUATION

Vermont Yankee SR 4.7.A.6.a requires operability testing of the vacuum breakers "and following any release of energy to the suppression chamber." Since some releases of steam to the suppression chamber do not cause actuation of the vacuum breakers, this requirement is overly conservative. The licensee proposes to replace this requirement with the STS SR 3.6.1.8.2 to perform operability testing within 12 hours after the discharge of steam into the suppression chamber from the safety/relief valves (SRVs) or following operation that causes any of the vacuum breakers to open. This change is acceptable since it requires testing for any event which causes the vacuum breakers to open or an event (opening of SRVs) which has a reasonable likelihood to result in opening the suppression chamber-to-drywell vacuum breakers. Reducing unnecessary testing reduces vacuum breaker wear.

The licensee's justification for this change states:

> Operability testing of the suppression chamber-to-drywell vacuum breakers will continue to be performed on a quarterly basis in accordance with the VY Inservice Testing Program. Operability testing of the corresponding position switches and position indicators in accordance with SR 4.7.A.6.a will continue to be required on a monthly basis and following any maintenance. [...]

For these reasons, the Nuclear Regulatory Commission (NRC) staff finds the proposed change to the STS requirements to be acceptable.

SR 4.7.A.6.b.(2) requires at least two suppression chamber-to-drywell vacuum breakers to be inspected each refueling outage. The licensee proposes to delete this requirement based on a review of inspections performed since 1996 that revealed no significant deficiencies that required entry into the Vermont Yankee Corrective Action Program. This periodic disassembly results in worker radiation dose and wear on vacuum breaker components. This requirement is not included in the BWR/4 STS. Therefore, the NRC staff finds this deletion to be 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 (74 FR 15770). 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: Richard Lobel

Date: July 6, 2009

July 6, 2009

Site Vice President
Entergy Nuclear Operations, Inc.
Vermont Yankee Nuclear Power Station
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Sincerely,

/RA/
James Kim, Project Manager
Plant Licensing Branch 1-1
Division of Operating Reactor Licensing
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Accession No.: ML091610224 *See memo dated April 30, 2009

OFFICE	LPL1-1/PM	LPL1-1/LA	SCVB/BC	OGC/NLO with comment	LPL1-1/BC
NAME	JKim	SLittle	RDennig*	LSubin	NSalgado
DATE	6/17/09	6/17/09	4/30/2009	6/24/09	7/06/09

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