



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

December 22, 2014

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 TO RENEWED FACILITY OPERATING LICENSE RE:  
CHANGES TO THE ADMINISTRATIVE CONTROLS SECTION OF THE  
TECHNICAL SPECIFICATIONS (TAC NO. MF2991)

Dear Sir or Madam:

The Commission has issued the enclosed Amendment No. 260 to Renewed Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station (VY), in response to your application dated October 31, 2013, as supplemented by letters dated April 24, 2014, July 16, 2014, and December 5, 2014.

The amendment revises and removes certain requirements from the Section 6.0, "Administrative Controls," portions of the VY Technical Specifications that are no longer applicable to the facility in a permanently defueled condition.

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

Sincerely,

A handwritten signature in black ink that reads "James Kim".

James Kim, Project Manager  
Plant Licensing IV-2 and Decommissioning  
Transition Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures:

1. Amendment No. 260 to License No. DPR-28
2. Safety Evaluation

cc w/encls: Distribution via Listserv



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. 260  
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 October 31, 2013, as supplemented by letters dated April 24, 2014, July 16, 2014, and December 5, 2014, 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.

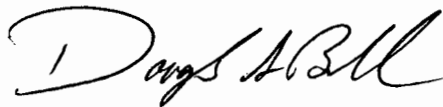
2. Accordingly, the license is amended as indicated in the attachment to this license amendment, and paragraph 3.B of the Renewed Facility Operating License No. DPR-28 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 260, are hereby incorporated in the license. Entergy Nuclear Operations, Inc. shall operate the facility in accordance with the Technical Specifications.

3. This license amendment becomes effective upon licensee's submittal of the certifications required by 10 CFR 50.82(a)(1) and shall be implemented within 60 days from the amendment effective date.

FOR THE NUCLEAR REGULATORY COMMISSION



Douglas A. Broaddus, Chief  
Plant Licensing Branch IV-2 and  
Decommissioning Transition Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the License

Date of Issuance: December 22, 2014

ATTACHMENT TO LICENSE AMENDMENT NO. 260

RENEWED FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following page of the Renewed 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  
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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.

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- D. Entergy Nuclear Operations, Inc., pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any Byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components.
  - 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 renewed 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. 260 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:

- 1. This paragraph deleted by Amendment No. 206, October 22, 2001.
- 2. This paragraph deleted by Amendment 131, 10/07/91.

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6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

- A. The plant manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during absences.
- B. The plant manager or designee shall approve, prior to implementation, each proposed test, experiment, or modification to systems or equipment that affect nuclear safety.
- C. The shift supervisor shall be responsible for the shift command function.

6.2 ORGANIZATION

A. Onsite and Offsite Organizations

Organizations shall be established for facility staff and corporate management. These organizations shall include the positions for activities affecting safety of the nuclear fuel.

- 1. Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organizational positions. These relationships shall be documented and updated, as appropriate, in the form of organizational charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the Quality Assurance Program Manual. The plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications shall be documented in the Technical Requirements Manual.
- 2. The plant manager shall be responsible for overall facility safe operation and shall have control over those on-site activities necessary for safe storage and maintenance of the nuclear fuel.
- 3. A specified corporate officer shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure safe management of nuclear fuel.

6.2 ORGANIZATION (Cont'd)

4. The individuals who train the Certified Fuel Handlers, carry out health physics, or perform quality assurance functions may report to the appropriate on-site manager; however, these individuals shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

B. Facility Staff

The facility staff organization shall include the following:

1. Each duty shift shall be composed of at least one shift supervisor and one Non-certified Operator. The Non-certified Operator position may be filled by a Certified Fuel Handler.
2. At least one person qualified to stand watch in the control room (Non-certified Operator or Certified Fuel Handler) shall be present in the control room when nuclear fuel is stored in the spent fuel pool.
3. All fuel handling operations shall be directly supervised by a Certified Fuel Handler.
4. Shift crew composition shall meet the requirements stipulated herein. Shift crew composition may be less than the minimum requirement of Specification 6.2.B.1 for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members, provided immediate action is taken to restore the shift crew composition to within the minimum requirements and all of the following conditions are met:
  - a. no fuel movements are in progress; and
  - b. no movement of loads over fuel are in progress; and
  - c. no unmanned shift positions during shift turnover shall be permitted while the shift crew is less than the minimum.
5. An individual qualified in radiation protection procedures shall be present on-site during the movement of fuel and during the movement of loads over fuel.
6. Deleted
7. The shift supervisor shall be a Certified Fuel Handler.
8. Deleted

6.2 ORGANIZATION (Cont'd)

C. Facility Staff Qualifications

1. Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions with exceptions specified in the Quality Assurance Program Manual (QAPM).
2. An NRC approved training and retraining program for Certified Fuel Handlers shall be maintained.

6.3 Deleted

6.4 PROCEDURES

Written procedures shall be established, implemented, and maintained covering the following activities:

- A. Normal startup, operation and shutdown of systems and components needed for the safe storage of nuclear fuel.
- B. Fuel handling operations.
- C. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components needed for the safe storage of nuclear fuel.
- D. Emergency conditions involving potential or actual release of radioactivity.
- E. Preventive and corrective maintenance operations which could have an effect on the safety of the nuclear fuel.
- F. Surveillance and testing requirements.
- G. Fire protection program implementation.
- H. Process Control Program in-plant implementation.
- I. Off-Site Dose Calculation Manual implementation.

6.5 HIGH RADIATION AREA

As provided in paragraph 20.1601(c) of 10 CFR 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraphs 20.1601(a) and 20.1601(b) of 10 CFR 20:

- A. High Radiation Areas with dose rates greater than 0.1 rem/hour at 30 centimeters, but not exceeding 1.0 rem/hour at 30 centimeters from the radiation source or from any surface penetrated by the radiation:



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B. Deleted

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D. Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering the operation of the facility shall be submitted by May 15 of each year and in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the facility. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM) and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

E. Annual Radiological Environmental Operating Report

The Annual Radiological Environmental Operating Report covering the operation of the facility during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include summarized and tabulated results of all radiological environmental samples taken during the report period pursuant to the table and figures in the ODCM. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

6.7 PROGRAMS AND MANUALS

The following programs shall be established, implemented and maintained:

A. Deleted

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B. OFF-SITE DOSE CALCULATION MANUAL (ODCM)

An Off-Site Dose Calculation Manual shall contain the current methodology and parameters used in the calculation of off-site doses due to radioactive gaseous and liquid effluents for the purpose of demonstrating compliance with 10 CFR 50, Appendix I, in the calculation of gaseous and liquid effluent monitoring alarm/trip setpoints, and in the conduct of the environmental radiological monitoring program.

The ODCM shall also contain the radioactive effluent controls and radiological environmental monitoring activities and descriptions of the information that should be included in the Radioactive Effluent Release Report and the Annual Radiological Environmental Operating Report required by Specification 6.6.D and Specification 6.6.E, respectively.

1. Licensee initiated changes to the ODCM:
  - a. Shall be submitted to the Commission in the Radioactive Effluent Release Report for the period in which the change(s) was made effective. This submittal shall contain:
    - i. Sufficient information to support the change together with appropriate analyses or evaluations justifying the change(s) and
    - ii. A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.1302, 40 CFR 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50, and do not adversely impact the accuracy or reliability of effluent dose or setpoint calculations.
  - b. Shall become effective upon approval by the plant manager.
  - c. Shall be submitted to the Commission in the form of a legible copy of the affected pages of the ODCM as a part of or concurrent with the Radioactive Effluent Release

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Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

| C. Deleted

D. Radioactive Effluent Controls Program

This program conforming to 10 CFR 50.36a provides for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program shall be contained in the ODCM, shall be implemented by operating procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- a. Limitations on the functional capability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;
- b. Limitations on the concentrations of radioactive material released in liquid effluents from the site to unrestricted areas, conforming to 10 times the concentration values in Appendix B, Table 2, Column 2, to 10 CFR 20.1001 - 20.2402;
- c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents pursuant to 10 CFR 20.1302 and with the methodology and parameters in the ODCM;
- d. Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released from the facility to unrestricted areas, conforming to 10 CFR 50, Appendix I;
- e. Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days;
- f. Limitations on the functional capability and use of the liquid and gaseous effluent treatment systems to ensure that appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a period of 31 days would exceed 2 percent of the guidelines for the annual dose or dose commitment, conforming to 10 CFR 50, Appendix I;
- g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the site boundary shall be limited to the following:
  1. For noble gases: less than or equal to a dose rate of 500 mrem/yr to the total body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
  2. For iodine-131, iodine-133, tritium, and for all radionuclides in particulate form with half lives greater than 8 days: less than or equal to a dose rate of 1500 mrem/yr to any organ;



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- h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from the facility to areas at or beyond the site boundary, conforming to 10 CFR 50, Appendix I;
- i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives greater than 8 days in gaseous effluents released from the facility to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and
- j. Limitations on the annual dose or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.

E. TECHNICAL SPECIFICATIONS (TS) BASES CONTROL PROGRAM

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
  - 1. A change in the TS incorporated in the license, or
  - 2. A change to the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.
- c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.
- d. Proposed changes that meet the criteria of Specification 6.7.E.b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 260 TO

RENEWED 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 October 31, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13316A004), as supplemented by letters dated April 24, 2014 (ADAMS Accession No. ML14119A099), July 16, 2014 (ADAMS Accession No. ML14202A206), and December 5, 2014 (ADAMS Accession No. ML14342B003), Entergy Nuclear Operations, Inc. (the licensee) requested changes to the Technical Specifications (TSs) for Vermont Yankee Nuclear Power Station (VY).

The amendment revises and removes certain requirements from the Section 6.0, "Administrative Controls," portions of the VY TSs that are no longer applicable to the facility in its permanently defueled condition. Specifically, the amendment revises TS Sections 6.1, "Responsibility," 6.2, "Organization," 6.3, "Action To Be Taken If A Safety Limit Is Exceeded," 6.4, "Procedures," 6.6, "Reporting Requirements," and 6.7, "Programs and Manuals," to reflect new staffing and training requirements for operating staff.

The supplemental letters dated April 24, 2014, July 16, 2014 and December 5, 2014, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the original proposed no significant hazards consideration determination as published in the *Federal Register* on February 19, 2014 (79 FR 9494).

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance were considered by the staff in its review of the license amendment request (LAR):

- Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.120, "Training and qualification of nuclear power plant personnel." This requires the use of a Systems Approach to Training (SAT) for personnel positions, including Certified Fuel Handlers.
- NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition." Chapter 13 addresses "Conduct of Operation"; the specific sub-chapter considered in this review was Chapter 13.2.2, "Non-Licensed Plant Staff Training," Revision 3, March 2007 (ADAMS Accession No. ML070100637).
- NUREG-1433, "Standard Technical Specifications Generic Electric BWR/4 Plants," Revision 4.
- NUREG-1625, "Proposed Standard Technical Specifications for Permanently Defueled Westinghouse Plants, Draft Report for Comment," March 1998 (ADAMS Accession No. ML082330233). This draft NUREG provides examples of TS for defueled plants.
- Section 55.4 of 10 CFR, "Definitions," which defines the elements of an SAT training program.

### 3.0 TECHNICAL EVALUATION

#### 3.1 TS 6.1: Responsibility

##### 3.1.1 TS 6.1.C

Current TS 6.1.C states:

The shift supervisor shall be responsible for the control room command function. During any absence of the shift supervisor from the control room while the unit is in plant startup or normal operation, an individual with an active Senior Reactor Operator (SRO) license shall be designated to assume the control room command function. During any absence of the shift supervisor from the control room while the unit is in cold shutdown or refueling with fuel in the reactor, an individual with an active SRO license or Reactor Operator license shall be designated to assume the control room command function.

Revised TS 6.1.C would state:

The shift supervisor shall be responsible for the shift command function.

The licensee proposed to change the command function from "control room command function" to "shift command function." The change also eliminates the discussion about transfer of control of the shift command function when the Shift Supervisor leaves the control room. Due to the decision to permanently cease operation of the unit and to permanently transfer the spent fuel to the spent fuel pool (SFP), all of the stored fuel will reside in the SFP. Because of the low decay heat load of the stored fuel, events involving the SFP are expected to evolve slowly and, while the control room would continue to be manned with qualified staff consistent with proposed

TS 6.2.C, continuous manning of the control room by the Shift Supervisor would not be necessary to protect the environment and the health and safety of the public. Therefore, the NRC staff finds this change acceptable.

### 3.2 TS 6.2: Organization

#### 3.2.1 TS 6.2.A - Onsite and Offsite Organizations

Current TS 6.2.A introduction states:

Organizations shall be established for unit operation and corporate management. These organizations shall include the positions for activities affecting the safety of the nuclear power plant.

Revised TS 6.2.A introduction would state:

Organizations shall be established for facility staff and corporate management. These organizations shall include the positions for activities affecting the safety of the nuclear fuel.

The licensee proposed to replace "unit operation" with "facility staff" and "nuclear power plant" with "nuclear fuel" in TS 6.2.A. The NRC staff reviewed the introduction to TS 6.2.A and concludes that it has been changed to reflect that the plant is permanently shut down and defueled. As such, the introduction has been modified to be appropriate for activities associated with a decommissioning reactor. The NRC staff has reviewed the changes and concludes that the changes are acceptable based on the permanently defueled status of the facility.

#### 3.2.2 TS 6.2.A.2

Current TS 6.2.A.2 states:

The plant manager shall be responsible for overall unit safe operation and shall have control over those on-site activities necessary for safe operation and maintenance of the plant.

Revised TS 6.2.A.2 would state:

The plant manager shall be responsible for overall facility safe operation and shall have control over those on-site activities necessary for safe storage and maintenance of the nuclear fuel.

The NRC staff reviewed the proposed changes and concludes that the changes in terminology from "unit" to "facility" and from "plant" to "nuclear fuel" reflects the permanently defueled state of the facility and is acceptable.

### 3.2.3 TS 6.2.A.3

Current TS 6.2.A.3 states:

The site vice president shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.

Revised TS 6.2.A.3 would state:

A specified corporate officer shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure safe management of nuclear fuel.

The NRC staff reviewed the proposed change and concludes that the change in title from "The site vice president" to "A specified corporate officer" and the change in terminology from "nuclear safety" to "safe management of nuclear fuel" reflect the permanently defueled state of the facility and is acceptable.

### 3.2.4 TS 6.2.A.4

Current TS 6.2.A.4 states:

The individuals who train the operating staff, carry out health physics, or perform quality assurance functions may report to the on-site manager; however, these individuals shall have sufficient organizational freedom to ensure their independence from operating pressures.

Revised TS 6.2.A.4 would state:

The individuals who train the Certified Fuel Handlers, carry out health physics, or perform quality assurance functions may report to the on-site manager; however, these individuals shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

The purpose of TS 6.2.A.4 is to ensure that staff who train critical staff members, carry out health physics or perform quality assurance functions, can do so without being subject to pressure from schedule or budget. Prior to decommissioning, this included operations staff trainers. The licensee proposed to change the TS from "operating staff" to "Certified Fuel Handlers," and from "independence from operating pressures" to "perform their assigned functions," to reflect the permanently shutdown and defueled status of the plant. The NRC staff concludes this is acceptable because the changes more accurately describe the title and responsibilities of the staff subject to this requirement as a result of the plant's decommissioning status.

3.2.5 TS 6.2.B.1 through 4 - Facility Staff

Current TS 6.2.B.1 through 4 states:

1. A non-licensed operator shall be assigned when the reactor contains fuel and an additional non-licensed operator shall be assigned during Plant Startup and Normal Operation.
2. At least one licensed Reactor Operator (RO) or one licensed Senior Reactor Operator (SRO) shall be present in the control room when fuel is in the reactor.
3. When the unit is in Plant Startup or Normal Operation, at least one licensed Senior Reactor Operator (SRO) and one licensed Reactor Operator (RO), two licensed Senior Reactor Operators, shall be in the control room.
4. Shift crew composition shall meet the requirements stipulated herein and in 10 CFR 50.54(m). Shift crew composition may be less than the minimum requirement of 10 CFR 50.54 (m) (2) (i) and Specifications 6.2.B.1 and 6.2.B.8 for a period of time not to exceed two hours in order to accommodate unexpected absence of on-duty shift crew members, provided immediate action is taken to restore the shift crew composition to within the minimum requirements.

Revised TS 6.2.B.1 through 4 would state:

1. Each duty shift shall be composed of at least one shift supervisor and one Non-certified Operator. The Non-Certified Operator position may be filled by a Certified Fuel Handler.
2. At least one person qualified to stand watch in the control room (Non-Certified Operator or Certified Fuel Handler) shall be present in the control room when nuclear fuel is stored in the spent fuel pool.
3. All fuel handling operations shall be directly supervised by a Certified Fuel Handler.
4. Shift crew composition shall meet the requirements stipulated herein. Shift crew composition may be less than the minimum requirement Specification 6.2.B.1 for a period of time not to exceed two hours in order to accommodate unexpected absence of on-duty shift crew members, provided immediate action is taken to restore the shift crew composition to within the minimum requirements and all of the following conditions are met:
  - a. no fuel movements are in progress; and
  - b. no movement of loads over fuel are in progress; and
  - c. no unmanned shift positions during shift turnover shall be permitted while the shift crew is less than the minimum.

The licensee's proposed changes modify requirements to reflect the decommissioning status of the unit. The NRC staff reviewed the changes to TS 6.2.B.1, 2, 3, and 4 that reflect the scope of activities resulting from permanent cessation of operation. With the certifications submitted in accordance with 10 CFR 50.82(a), the licensee is no longer authorized to operate the reactor or load fuel into the reactor vessel. As discussed in NRC letter dated June 18, 2014 (ADAMS Accession No. ML14147A216), the requirements of 10 CFR 50.54(m) requiring licensed operator staffing under various MODES of operation no longer apply to facilities that have submitted certifications in accordance with 10 CFR 50.82(a). The minimum crew compliment is consistent with shift manning requirements for previously approved sites with single SFPs. Therefore, the proposed changes that remove requirements for licensed operators are acceptable. The staff further concludes that, given the reduced level of activities at the permanently shutdown facility, the presence of one Certified Fuel Handler is sufficient to provide oversight of fuel handling activities.

### 3.2.6 TS 6.2.B.5

Current TS 6.2.B.5 states:

An individual qualified in radiation protection procedures shall be present on-site when there is fuel in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.

Revised and renumbered TS 6.2.B.5 would state:

An individual qualified in radiation protection procedures shall be present on-site during the movement of fuel and during the movement of loads over fuel.

The licensee modified TS 6.2.B.5 to reflect those activities requiring radiation protection staffing following the permanent shutdown of the reactor. Following certification of permanent removal of fuel to the SFP, fuel can no longer reside in the reactor. The TS has been modified to reflect those remaining activities where individuals qualified in radiation protection procedures are required to be present. The NRC staff reviewed these changes and found them to be acceptable.

### 3.2.7 TS 6.2.B.6 through TS 6.2.B.8

Current TS 6.2.B.6 states:

6. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety related functions (e.g., licensed SROs, licensed ROs, radiation protection technicians, auxiliary operators, and key maintenance personnel).

The licensee proposed the deletion of TS 6.2.B.6 because the requirements contained within the TS have been incorporated into 10 CFR 26, Subpart I – Managing Fatigue. The requirements of 10 CFR 26, Subpart I will continue to be applicable to VY staff, as defined by 10 CFR 26.201 and 10 CFR 26.4, in the permanently defueled condition. Therefore, the NRC staff concludes that the proposed deletion is acceptable.

Current TS 6.2.B.7 states:

7. The operations manager or an assistant operations manager shall hold an SRO license.

Revised TS 6.2.B.7 would state:

7. The shift supervisor is a Certified Fuel Handler.

The NRC staff reviewed the revised requirements and concluded that they establish appropriate minimum qualification requirements for the Shift Supervisor position. Shift supervisors qualified as Certified Fuel Handlers have completed training in the safe conduct of decommissioning activities, safe handling and safe storage of spent fuel, and the appropriate response to plant emergencies. Therefore, the NRC staff concludes that that these changes are acceptable.

Current TS 6.2.B.8 states:

8. When the unit is in Plant Startup or Normal Operation an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.

The licensee proposed the deletion of TS 6.2.B.8, which contained the description and training requirements for the Shift Technical Advisor (STA) position in support of the operating nuclear power plant. The NRC staff reviewed the proposed deletion and concludes that STA position is only needed for power operations. Once the certifications required by 10 CFR 50.82(a)(1) have been submitted, the advisory support provided by the STA is no longer needed or required and the qualification requirements for this position can be deleted. Accordingly, the NRC staff concludes that the proposed deletion is acceptable.

### 3.2.8 TS 6.2.C.1

Current TS 6.2.C.1 states:

Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions with exceptions specified in the Entergy Quality Assurance Program Manual (QAPM).

Revised TS 6.2.C.1 would state:

Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions with exceptions specified in the Quality Assurance Program Manual (QAPM).

The licensee proposed to change the title of the QAPM by removing specific reference to the Entergy corporate QAPM. This change will allow VY to transition from the Entergy corporate QAPM to a site-specific QAPM during the decommissioning process. The licensee also proposed the change in terminology from "unit" to "facility" reflects the permanently defueled state of the facility. The NRC staff reviewed the changes and found them to be acceptable.



### 3.2.9 TS 6.2.C.2

Current TS 6.2.C.2 states:

For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 6.2.C.1, perform the functions described in 10 CFR 50.54(m).

Revised TS 6.2.C.2 would state:

An NRC approved training and retraining program for Certified Fuel Handlers shall be maintained.

As defined in 10 CFR 50.2, a Certified Fuel Handler is a non-licensed operator that has been qualified in accordance with an NRC-approved Certified Fuel Handler training program. The Certified Fuel Handler training and retraining program for VY, was previously approved by the NRC staff on October 1, 2014 (ADAMS Accession No. ML14162A209). By establishing this new TS, the NRC staff concludes that that the new TS 5.3.2 appropriately requires the establishment and maintenance of a program to train and retrain Certified Fuel Handlers for positions requiring such qualification that are specified in the TS. Therefore, the NRC staff concludes that the proposed new TS 6.2.C.2 is acceptable.

### 3.3 TS 6.3: Action To Be Taken If A Safety Limit Is Exceeded

Current TS 6.3 states:

Applies to administrative action to be followed in the event a safety limit is exceeded.

If a safety limit is exceeded, the reactor shall be shutdown immediately.

The licensee proposed the deletion of TS 6.3. Once VY submits the certifications required by 10 CFR 50.82(a)(1), the 10 CFR Part 50 license will no longer authorize operation of the reactor or placement or retention of fuel in the reactor vessel in accordance with 10 CFR 50.82(a)(2). With the reactor in a permanently defueled condition, safety limits can no longer be exceeded. As a result, this requirement is no longer required. The NRC staff concludes that the proposed deletion is acceptable.

### 3.4 TS 6.4: Procedures

Written procedures shall be established, implemented, and maintained covering the following activities:

#### 3.4.1 TS 6.4.A, B, C, and E

Current TS 6.4.A, B, C, and E states:

- A. Normal startup, operation and shutdown of systems and components of the facility.

- B. Refueling operations.
- C. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components, suspected Primary System leaks and abnormal reactivity changes.
- E. Preventive and corrective maintenance operations which could have an effect on the safety of the reactor.

Revised TS 6.4.A, B, C, and E would state:

- A. Normal startup, operation and shutdown of systems and components needed for the safe storage of nuclear fuel.
- B. Fuel handling operations.
- C. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components needed for the safe storage of nuclear fuel.
- E. Preventive and corrective maintenance operations which could have an effect on the safety of the nuclear fuel.

These changes reflect requirements associated with fuel handling activities, as opposed to refueling activities. This is acceptable because the procedures will be updated to reflect the permanently shutdown and defueled status of the reactor. Therefore, the NRC staff concludes that the proposed changes to TS 6.4.A, B, C, and E are acceptable.

### 3.5 TS 6.6: Reporting Requirements

#### 3.5.1 TS 6.6.C, Core Operating Limits Report

The licensee proposed the deletion of TS 6.6.C. The change would eliminate the requirement for the Core Operating Limits Report. The report addresses activities that would not occur after the reactor is permanently defueled and the licensee submits certifications pursuant to 10 CFR 50.82(a)(1). Therefore, the NRC staff concludes that the proposed deletion is acceptable.

### 3.6 TS 6.7: Programs and Manuals

#### 3.6.1 TS 6.7.A, INTEGRITY OF SYSTEMS OUTSIDE CONTAINMENT

This program was established to minimize leakage from portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident. The licensee proposed the deletion of TS 6.7.A since these conditions can no longer exist for a permanently defueled plant. Therefore, the NRC staff concludes that the proposed deletion is acceptable.

### 3.6.2 TS 6.7.B.1.b, Offsite Dose Calculation Manual

Current TS 6.7.B.1.b states:

1. Licensee initiated changes to the OCDM:
  - b. Shall become effective upon review by PORC and approved by the plant manager.

Revised TS 6.7.B.1.b would state:

1. Licensee initiated changes to the OCDM:
  - b. Shall become effective upon approval by the plant manager.

This change eliminates the requirement for the Plant Operations Review Committee (PORC) to review licensee initiated changes to the Offsite Dose Calculation Manual (ODCM). The plant manager will continue to approve licensee initiated changes to the ODCM. This change makes this Specification consistent with the equivalent specification (TS 5.5.1) in NUREG-1433, "Standard Technical Specifications General Electric BWR/4 Plants," Revision 4. Additionally, reviews of ODCM changes are required to be reviewed by the On-Site Safety Review Committee (OSRC) in accordance with Entergy procedure EN-OM-119, "On-Site Safety Review Committee." The PORC and OSRC are equivalent. Therefore, the NRC staff concludes that this change is acceptable.

### 3.6.3 TS 6.7.C, Primary Containment Leakage Rate Testing Program

The licensee proposed deletion of TS 6.7.C. The change would eliminate the Primary Containment Leakage Rate Testing Program. The program deals with reactor support systems that would not be required after the reactor is permanently defueled and the licensee submits certifications pursuant to 10 CFR 50.82(a)(1)(i) and (ii). Therefore, the NRC staff concludes that the proposed deletion is acceptable.

### 3.7 TS 6.1.A, TS 6.B, TS 6.2.C, TS 6.6.D, TS 6.6.E, TS 6.7.D.d, TS 6.7.D.h and TS 6.7.D.i

In these sections, the licensee proposed to replace "unit" with "facility." The NRC staff reviewed the proposed change and concludes that the change in terminology from "unit" to "facility" reflects the permanently defueled state of the facility and is 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 amendments change 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 amendments involve no significant increase in the 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding as published in the *Federal Register* on February 19, 2014 (79 FR 9494). 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 Contributors: M. Keefe, NRR  
J. Kim, NRR

Date: December 22, 2014

December 22, 2014

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 TO RENEWED FACILITY OPERATING LICENSE RE: CHANGES TO THE ADMINISTRATIVE CONTROLS SECTION OF THE TECHNICAL SPECIFICATIONS (TAC NO. MF2991)**

Dear Sir or Madam:

The Commission has issued the enclosed Amendment No. 260 to Renewed Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station (VY), in response to your application dated October 31, 2013, as supplemented by letters dated April 24, 2014, July 16, 2014, and December 5, 2014.

The amendment revises and removes certain requirements from the Section 6.0, "Administrative Controls," portions of the VY Technical Specifications that are no longer applicable to the facility in its permanently defueled condition.

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

Sincerely,

**/RA/**

James Kim, Project Manager  
Plant Licensing IV-2 and Decommissioning  
Transition Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures:

1. Amendment No. 260 to License No. DPR-28
2. Safety Evaluation

cc w/encls: Distribution via Listserv

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ADAMS Accession No.: **ML14217A072** \*SE memo dated

OFFICE	NRR/DORL/LPL4-2/PM	NRR/DORL/LPL1-1/LA	NRR/DRA/AHPB/BC	NRR/DSS/STSB/BC
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DATE	08/12/14	08/11/14	1/29/14	09/30/14
OFFICE	OGC – NLO with changes	NRR/DORL/LPL4-2/BC	NRR/DORL/LPL4-2/PM	
NAME	BMizuno	DBroadus	JKim	
DATE	10/10/14	12/18/14	12/22/14	

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