

April 8, 1998

Mr. Donald A. Reid  
Senior Vice President, Operations  
Vermont Yankee Nuclear Power Corporation  
185 Old Ferry Road  
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SUBJECT: ISSUANCE OF AMENDMENT NO.158 TO FACILITY OPERATING LICENSE NO. DPR-28 REGARDING HIGH RANGE STACK MONITOR, VERMONT YANKEE NUCLEAR POWER STATION (TAC NO. M96446)

The Commission has issued the enclosed Amendment No.158 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to your application dated August 22, 1996.

The amendment changes the action statement for the high range stack noble gas monitor based on Generic Letter 83-36, NUREG-0737 Technical Specifications.

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,

Richard P. Croteau, Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-271

- Enclosures: 1. Amendment No.158 to License No. DPR-28  
2. Safety Evaluation

cc w/encls: See next page

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Vermont Yankee Nuclear Power Station

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DATED: April 8, 1998

AMENDMENT NO. 158 TO FACILITY OPERATING LICENSE NO. DPR-28 - VERMONT YANKEE  
NUCLEAR POWER STATION

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

VERMONT YANKEE NUCLEAR POWER CORPORATION

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 158  
License No. DPR-28

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by the Vermont Yankee Nuclear Power Corporation (the licensee) dated August 22, 1996, 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. 1<sup>58</sup>, 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 to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Cecil O Thomas, Director  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: April 8, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 158

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following page of Appendix A Technical Specifications with the attached page. The revised page is identified by amendment number and contains vertical lines indicating the areas of change.

Remove

Insert

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TABLE 3.2.6 NOTES

- Note 1 - From and after the date that a parameter is reduced to one indication, operation is permissible for 30 days. If a parameter is not indicated in the Control Room, continued operation is permissible during the next seven days. If indication cannot be restored within the next six hours, an orderly shutdown shall be initiated and the reactor shall be in a hot shutdown condition in six hours and a cold shutdown condition in the following 18 hours.
- Note 2 - Deleted.
- Note 3 - From and after the date that this parameter is reduced to one indication in the Control Room, continued reactor operation is permissible during the next 30 days. If both channels are inoperable and indication cannot be restored in six hours, an orderly shutdown shall be initiated and the reactor shall be in a hot shutdown condition in six hours and a cold shutdown condition in the following 18 hours.
- Note 4 - From and after the date that safety/relief valve position from pressure switches is unavailable, reactor operation may continue provided safety/relief valve position can be determined from Recorder #2-166 (steam temperature in SRVs, 0-600°F) and Meter 16-19-33A or C (torus water temperature, 0-250°F). If both parameters are not available, the reactor shall be in a hot shutdown condition in six hours and a cold shutdown condition in the following 18 hours.
- Note 5 - From and after the date that safety valve position from the acoustic monitor is unavailable, reactor operation may continue provided safety valve position can be determined from Recorder #2-166 (thermocouple, 0-600°F) and Meter #16-19-12A or B (containment pressure (-15) -(+260) psig). If both indications are not available, the reactor shall be in a hot shutdown condition in six hours and in a cold shutdown condition in the following 18 hours.
- Note 6 - Within 30 days following the loss of one indication, or seven days following the loss of both indications, restore the inoperable channel(s) to an operable status or a special report to the Commission pursuant to Specification 6.7 must be prepared and submitted within the subsequent 14 days, outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status.
- Note 7 - From and after the date that this parameter is unavailable by Control Room indication, within 72 hours ensure that local sampling capability is available. If the Control Room indication is not restored within 7 days, prepare and submit a special report to the NRC within 14 days following the event, outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 158 TO FACILITY OPERATING LICENSE NO. DPR-28

VERMONT YANKEE NUCLEAR POWER CORPORATION

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

1.0 INTRODUCTION

By letter dated August 22, 1996, the Vermont Yankee Nuclear Power Corporation (the licensee) submitted a request to amend the Vermont Yankee Nuclear Power Station Technical Specifications (TSs). The proposed amendment would revise the TSs to change the action statement for the high range stack noble gas monitor. The current TSs require a plant shutdown if Control Room indication for this monitor cannot be restored within 30 days. The licensee proposed to change the TSs to require preparation and submittal of a special report to the NRC if Control Room indication is not restored within 7 days and remove the requirement to shutdown the unit. The licensee stated that the new TSs are based on the guidance of Generic Letter (GL) 83-36, NUREG-0737 Technical Specifications.

2.0 EVALUATION

.Final Safety Analysis Report (FSAR) section 7.12.3 describes the plant stack radiation monitor system. The objective of the system is to sample, monitor, indicate, and record the radioactivity level of the station effluent gases being released from the plant stack during operation and to alert operating personnel in the event radiation levels approach or exceed pre-established limits. Radio-gas monitor III (17-155) provides indication of high-range discharges of radioactive gases. The monitor indicates and alarms in the Control Room; no control action is provided.

TS 3.9, Radioactive Effluent Monitoring Systems, contains requirements for gaseous process and effluent monitoring including alarm/trip setpoints to prevent exceeding allowable doses.

TSs 3.2, Protective Instrument Systems, requires that the post-accident instrumentation that displays information in the Control Room shall be in accordance with Table 3.2.6 during power operation. TSs Table 3.2.6 for the stack noble gas effluent monitor, meter RM-17-155, refers to Note 7 which states:

"From and after the date that this parameter is unavailable by Control Room indication, and cannot be restored within 24 hours, continued reactor operation is permissible for the next 30 days provided that local sampling capacity is available. If the Control Room indication cannot be restored within 30 days, the reactor shall be in hot shutdown within six hours and in cold shutdown within the subsequent 24 hours."

The licensee proposed to modify Note 7 to state:

"From and after the date that this parameter is unavailable by Control Room indication, within 72 hours ensure that local sampling capability is available. If the Control Room indication is not restored within 7 days, prepare and submit a special report to the NRC within 14 days following the event, outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status."

This change essentially replaces a 30-day shutdown action statement with a 14-day reporting requirement.

GL 83-36 Enclosure 1 provided staff guidance on TS for certain items including noble gas effluent monitors and states:

"Noble Gas effluent monitors provide information, during and following an accident, which are considered helpful to the operator in accessing the plant condition. It is desired that these monitors be operable at all times during plant operation, but they are not required for safe shutdown of the plant. In case of failure of the monitor, appropriate actions should be taken to restore its operational capability in a reasonable period of time. Considering the importance of the availability of the equipment and possible delays involved in administrative controls, 7 days is considered to be the appropriate time period to, restore the operability of the monitor. An alternate method for monitoring the effluent should be initiated as soon as practical, but no later than 72 hours after the identification of the failure of the monitor. If the monitor is not restored to operable condition within 7 days after the failure, a special report should be submitted to the NRC within 14 days following the event, outlining the cause of inoperability, actions taken, and the planned schedule for restoring the system to operable status."

The licensee stated that the high range stack noble gas monitor consists of a single instrument with no redundant counterpart. The proposed change will minimize the potential for an unnecessary shutdown in the event the instrument is damaged by lightning, or otherwise out of service and cannot be immediately restored. This monitor serves as input for dose projections associated with initial estimation of off-site conditions and is used prior to the acquisition of stack isotopic sample data which provides more accurate indication of stack activity. The licensee considered that it is not appropriate to impose stringent requirements on the operation of the unit due to the passive function of this instrument and the ability to monitor this parameter utilizing alternate methods. This monitor does not have any safety function associated with the prevention or automatic mitigation of design basis accidents, neither does it provide primary information needed to permit the Control Room operating personnel to take required manually controlled actions.

Since alternate means to monitor this parameter will be provided within 72 hours, and the monitor provides no control functions, the staff finds the proposed change acceptable. In addition, the proposed change conforms to the staff guidance of GL 83-36.

### 3.0 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.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in amounts, and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (62 FR 30647). 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.

### 5.0 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 P. Croteau

Date: April 8, 1998