

December 8, 1989

Mr. L. A. Tremblay  
 Licensing Engineer  
 Vermont Yankee Nuclear Power Corporation  
 580 Main Street  
 Bolton, Massachusetts 01740-1398

Dear Mr. Tremblay:

SUBJECT: ISSUANCE OF AMENDMENT NO. 117 TO FACILITY OPERATING LICENSE  
 NO. DPR-28 - VERMONT YANKEE NUCLEAR POWER STATION (TAC NO. 75158)

The Commission has issued the enclosed Amendment No. 117 to Facility Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station. This amendment is in response to your application dated October 16, 1989.

This amendment changes the Technical Specifications to reduce the frequency of fire watches, when required, from continuous to not less than once per hour in the cable vault or switchgear room.

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

Sincerely,

15/

Morton B. Fairtile, Project Manager  
 Project Directorate I-3  
 Division of Reactor Projects I/II  
 Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 117 to License No. DPR-28
2. Safety Evaluation

cc w/enclosures:  
 See next page

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Mr. L. A. Tremblay

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December 8, 1989

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Mr. L. A. Tremblay

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December 8, 1989

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Adjudicatory File (2)  
Atomic Safety and Licensing Board  
Panel Docket  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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

VERMONT YANKEE NUCLEAR POWER CORPORATION

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 117  
License No. DPR-28

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for amendment filed by the Vermont Yankee Nuclear Power Corporation (the licensee) dated October 16, 1989 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 set forth in 10 CFR Chapter I;
  - 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:

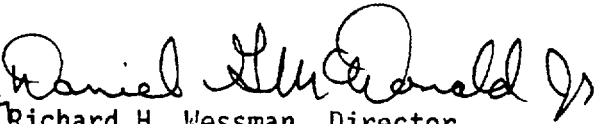
Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 117, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Active for*   
Richard H. Wessman, 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: December 8, 1989

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

15/  
Richard H. Wessman, 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: December 8, 1989

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NAME	: MBairtile	: MRushbrook	:	: RHWessman	:	:	:
DATE	: 11/2/89	: 11/1/89	: 11/14/89	: 11/2/89	:	:	:

OFFICIAL RECORD COPY

AMENDMENT NO. 117 TO DPR-28 VERMONT YANKEE NUCLEAR POWER STATION DATED December 8, 1989

DISTRIBUTION:

Docket File 50-271

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ATTACHMENT TO LICENSE AMENDMENT NO. 17

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by Amendment number and contains a vertical line indicating the area of change.

Remove

187-g

Insert

187-g



### 3.13 LIMITING CONDITIONS FOR OPERATION

2. From and after the date that the CO<sub>2</sub> system in the cable vault or a switchgear room is inoperable, within one hour a fire watch shall be established to inspect the location at least once every hour, provided that the fire detection system is operable in accordance with 3.13.A. If the fire detection system is also inoperable, within one hour a continuous fire watch shall be established with backup fire suppression equipment. Restore the CO<sub>2</sub> system to operable status within 14 days or submit a report within the next 30 days to the Commission as specified in 6.7.C.2 outlining the cause of inoperability and the plans for restoring the CO<sub>2</sub> system to operable status.
3. From and after the date that the CO<sub>2</sub> system in the diesel fire pump day tank room is inoperable, within one hour a fire watch shall be established to inspect the location at least once every hour. Restore the system to operable status within 14 days or submit a report within the next 30 days to the Commission as specified in 6.7.C.2 outlining the cause of inoperability and the plans for restoring the system to operable status.

#### E. Vital Fire Barrier Penetration Fire Seals

1. Except as specified in Specification 3.13.E.2 below, vital fire barrier penetration seals protecting the Reactor Building, Control Room Building, and Diesel Generator Rooms shall be intact.
2. From and after the date a vital fire barrier penetration fire seal is not intact, a continuous fire watch shall be established on at least one side of the affected penetration within 1 hour.

#### F. Sprinkler Systems

1. Except as specified in Specification 3.13.F.2 below, those sprinkler systems listed in Table 3.13.F.1 shall be operable whenever equipment in the area protected by those sprinklers is required to be operable.

### 4.13 SURVEILLANCE REQUIREMENTS

- b. At least once per 18 months be verifying that the system, including associated ventilation dampers, will actuate automatically to a simulated actuation signal.
- c. At least once per operating cycle a flow path test shall be performed to verify flow through each nozzle.

#### E. Vital Fire Barrier Penetration Fire Seals

1. Vital fire barrier penetration seals shall be verified to be functional by visual inspection at least once per operating cycle and following any repair.

#### F. Sprinkler Systems

1. Each of the sprinkler systems specified in Table 3.13.F.1 shall be demonstrated operable:
  - a. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
  - b. At least once each month by verifying each valve in the flow path is in its correct position. (For electrically supervised valves, adequate verification is a visual check of electrical indication.)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 117 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 October 16, 1989, the Vermont Yankee Nuclear Power Corporation (the licensee) requested an amendment to Facility Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station. The proposed amendment would reduce the frequency of fire watches, when required, from continuous to not less than once per hour in the cable vault or switchgear room.

2.0 EVALUATION

The licensee proposes to amend Technical Specification (TS) 3.13.D.2, "High Pressure CO<sub>2</sub> System." This TS provides limiting conditions for operation of this system in the cable vault and switchgear room. The current TS requires a continuous fire watch, should the CO<sub>2</sub> system become inoperable. The proposed amendment would require a one hour fire watch (roving patrol), provided the fire detection system is operable should the CO<sub>2</sub> system become inoperable. The existing TS did not provide any credit for the detection systems in the cable vault and switchgear rooms. These protection systems both provide alarms and actuate the CO<sub>2</sub> systems. These systems alarm locally and remotely in the control room.

Since the current TS was put into effect, the licensee has modified both the cable vault and switchgear rooms by the addition of fire barriers. More importantly, the licensee has added a dedicated safe shutdown system.

We conclude based on the superiority of a detection system with multiple sensor points over a single person on watch, and the capability of the detection system to both reliably alarm and actuate the CO<sub>2</sub> system that inclusion of the detection system in the TS more than compensates for the reduction in frequency from a continuous fire watch to a one hour fire watch. In addition, significant improvements in fire safety, barriers and a dedicated safe shutdown system, further enhance the ability to detect and react to a fire. Therefore, we conclude a one hour fire watch is acceptable for the cable vault and switchgear rooms.

### ENVIRONMENTAL CONSIDERATION

This amendment involves a change in a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves 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 published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

### CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (54 FR 46785 ) on November 7, 1989 and consulted with the State of Vermont. No public comments were received and the State of Vermont did not have any comments.

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: M. B. Fairtile

Dated: December 8, 1989