

Mr. Robert J. Wanczyk  
 Acting Director of Operatic  
 Vermont Yankee Nuclear Power Corporation  
 185 Old Ferry Road  
 Brattleboro, VT 05301

October 13, 1999

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - ISSUANCE OF  
 AMENDMENT RE: MISSED TECHNICAL SPECIFICATIONS SURVEILLANCE  
 (TAC NO. MA6299)

Dear Mr. Wanczyk:

The Commission has issued the enclosed Amendment No.179 to Facility Operating License DPR-28 for the Vermont Yankee Nuclear Power Station, in response to your application dated August 18, 1999.

The amendment revises the definition of "Surveillance Frequency" to incorporate provisions that apply upon the discovery of a missed Technical Specification surveillance. This change allows a delay in performing the actions of the associated limiting conditions for operation for up to 24 hours or up to the limit of the specified frequency, whichever is less, when it is discovered that a surveillance was not performed within its specified frequency.

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,

Original signed by:

Richard P. Croteau, Project Manager, Section 2  
 Project Directorate I  
 Division of Licensing Project Management  
 Office of Nuclear Reactor Regulation

Docket No. 50-271

- Enclosures: 1. Amendment No.179 to License No. DPR-28  
 2. Safety Evaluation

cc w/encls: See next page

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NAME	RPCroteau: [initials]	TLClark: [initials]	WBeckner	JClifford	RBachmann
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NAME	RPCroteau:rd	TLClark	WBeckner	JClifford	RBachmann
DATE	9/17/99	9/17/99	09/02/99	9/17/99	09/16/99

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

October 13, 1999

Mr. Robert J. Wanczyk  
Acting Director of Operations  
Vermont Yankee Nuclear Power Corporation  
185 Old Ferry Road  
Brattleboro, VT 05301

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Sincerely,

A handwritten signature in black ink, appearing to read "R. Croteau".

Richard P. Croteau, Project Manager, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures: 1. Amendment No.179 to  
License No. DPR-28  
2. Safety Evaluation

cc w/encls: See next page

Vermont Yankee Nuclear Power Station

cc:

Regional Administrator, Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Mr. David R. Lewis  
Shaw, Pittman, Potts & Trowbridge  
2300 N Street, N.W.  
Washington, DC 20037-1128

Mr. Richard P. Sedano, Commissioner  
Vermont Department of Public Service  
112 State Street  
Montpelier, VT 05620-2601

Mr. Michael H. Dworkin, Chairman  
Public Service Board  
State of Vermont  
112 State Street  
Montpelier, VT 05620-2701

Chairman, Board of Selectmen  
Town of Vernon  
P.O. Box 116  
Vernon, VT 05354-0116

Mr. Richard E. McCullough  
Operating Experience Coordinator  
Vermont Yankee Nuclear Power Station  
P.O. Box 157  
Governor Hunt Road  
Vernon, VT 05354

G. Dana Bisbee, Esq.  
Deputy Attorney General  
33 Capitol Street  
Concord, NH 03301-6937

Chief, Safety Unit  
Office of the Attorney General  
One Ashburton Place, 19th Floor  
Boston, MA 02108

Ms. Deborah B. Katz  
Box 83  
Shelburne Falls, MA 01370

Mr. Raymond N. McCandless  
Vermont Department of Health  
Division of Occupational  
and Radiological Health  
108 Cherry Street  
Burlington, VT 05402

Mr. Gautam Sen  
Licensing Manager  
Vermont Yankee Nuclear Power  
Corporation  
185 Old Ferry Road  
Brattleboro, VT 05301

Resident Inspector  
Vermont Yankee Nuclear Power Station  
U. S. Nuclear Regulatory Commission  
P.O. Box 176  
Vernon, VT 05354

Director, Massachusetts Emergency  
Management Agency  
ATTN: James Muckerheide  
400 Worcester Rd.  
P.O. Box 1496  
Framingham, MA 01701-0317

Jonathan M. Block, Esq.  
Main Street  
P. O. Box 566  
Putney, VT 05346-0566



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. 179  
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 18, 1999, 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.

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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. 179 , 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 and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



James W. Clifford, Chief, Section 2  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: October 13, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 179

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

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

4  
4a  
5

Insert

4  
4a  
5

## 1.0 DEFINITIONS

2. The standby gas treatment system is operable.
  3. All reactor building automatic ventilation system isolation valves are operable or are secured in the isolated position.
- V. Shutdown - The reactor is in a shutdown condition when the reactor mode switch is in the shutdown mode position and no core alterations are being performed. When the mode switch is placed in the shutdown position a reactor scram is initiated, power to the control rod drives is removed, and the reactor protection system trip systems are de-energized.
1. Hot Shutdown means conditions as above with reactor coolant temperature greater than 212°F.
  2. Cold Shutdown means conditions as above with reactor coolant temperature equal to or less than 212°F.
  3. Shutdown means conditions as above such that the effective multiplication factor ( $K_{eff}$ ) of the core shall be less than 0.99.
- W. Simulated Automatic Actuation - Simulated automatic actuation means applying a simulated signal to the sensor to actuate circuit in question.
- X. Transition Boiling - Transition boiling means the boiling regime between nucleate and film boiling. Transition boiling is the regime in which both nucleate and film boiling occur intermittently with neither type being completely stable.
- Y. Surveillance Frequency - Unless otherwise stated in these specifications, periodic surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus 25%. The operating cycle interval is considered to be 18 months and the tolerance stated above is applicable.

If it is discovered that a surveillance was not performed within its specified frequency, declaring applicable Limiting Conditions for Operation (LCOs) not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is less. This delay period is permitted to allow performance of the surveillance.

If the surveillance is not performed within the delay period, applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

When the surveillance is performed within the delay period and the surveillance is not met (i.e., acceptance criteria are not satisfied), applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

## 1.0 DEFINITIONS

- Z. Surveillance Interval - The surveillance interval is the calendar time between surveillance tests, checks, calibrations, and examinations to be performed upon an instrument or component when it is required to be operable. These tests unless otherwise stated in these specifications may be waived when the instrument, component, or system is not required to be operable, but these tests shall be performed on the instrument, component, or system prior to being required to be operable.
- AA. Deleted
- BB. Source Check - The qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.
- CC. Dose Equivalent I-131 - The dose equivalent I-131 shall be that concentration of I-131 (microcurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in NRC Regulatory Guide 1.109, Revision 1, October 1977.
- DD. Solidification - Solidification shall be the conversion of wet wastes into a form that meets shipping and burial ground requirements. Suitable forms include dewatered resins and filter sludges.
- EE. Deleted
- FF. Site Boundary - The site boundary is shown in Figure 2.2-5 in the FSAR.
- GG. Deleted
- HH. Deleted
- II. Off-Site Dose Calculation Manual (ODCM) - A manual containing the current methodology and parameters used in the calculation of off-site doses due to radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm/trip setpoints, and in the conduction of the environmental radiological monitoring program.
- JJ. Process Control Program (PCP) - A process control program shall contain the sampling, analysis, tests, and determinations by which wet radioactive waste from liquid systems is assured to be converted to a form suitable for off-site disposal.
- KK. Gaseous Radwaste Treatment System - The Augmented Off-Gas System (AOG) is the gaseous radwaste treatment system which has been designed and installed to reduce radioactive gaseous effluents by collecting primary coolant system off-gases from the primary system and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

1.0 DEFINITIONS

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- LL. Ventilation Exhaust Treatment System - The Radwaste Building and AOG Building ventilation HEPA filters are ventilation exhaust treatment systems which have been designed and installed to reduce radioactive material in particulate form in gaseous effluents by passing ventilation air through HEPA filters for the purpose of removing radioactive particulates from the gaseous exhaust stream prior to release to the environment. Engineered safety feature atmospheric cleanup systems, such as the Standby Gas Treatment (SBGT) System, are not considered to be ventilation exhaust treatment system components.
- MM. Vent/Purging - Vent/Purging is the controlled process of discharging air or gas from the primary containment to control temperature, pressure, humidity, concentration or other operating conditions.
- NN. Core Operating Limits Report - The Core Operating Limits Report is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.6.C. Plant operation within these operating limits is addressed in individual specifications.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 179 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 18, 1999, 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 TS definition of "Surveillance Frequency" to incorporate provisions that apply upon the discovery of a missed Technical Specification surveillance. The proposed change allows a delay in performing the actions of the associated limiting conditions for operation for up to 24 hours or up to the limit of the specified frequency, whichever is less, when it is discovered that a surveillance was not performed within its specified frequency.

2.0 EVALUATION

NRC Generic Letter (GL) 87-09 provided guidance regarding problems that had been encountered with the general requirements on the applicability of limiting conditions for operation (LCO) and surveillance requirements in TSs. One such problem involved unnecessary shutdowns when surveillance intervals are inadvertently exceeded. The solution was to specify an acceptable time limit for completing a missed surveillance in certain circumstances and to clarify when a missed surveillance constitutes a violation of the operability of an LCO. The licensee stated that the proposed change is consistent with standard industry practices previously found acceptable to the NRC and contained in Standard TSs, NUREG-1433, and GL 87-09.

The current TS definition for "Surveillance Frequency" states:

"Surveillance Frequency - Unless otherwise stated in these specifications, periodic surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted plus 25%. The operating cycle interval is considered to be 18 months and the tolerance stated above is applicable."

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The licensee did not propose changing the existing definition, but proposed adding the following to the above definition:

“If it is discovered that a surveillance was not performed within its specified frequency, declaring applicable Limiting Conditions for Operation (LCOs) not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is less. This delay period is permitted to allow performance of the surveillance.

If the surveillance is not performed within the delay period, applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.

When the surveillance is performed within the delay period and the surveillance is not met (i.e., acceptance criteria are not satisfied), applicable LCOs must immediately be declared not met, and applicable LCOs must be entered.”

GL 87-09 states that it is overly conservative to assume that systems or components are inoperable when a surveillance has not been performed because the vast majority of surveillances do in fact demonstrate that systems or components are operable. When a surveillance is missed, it is primarily a question of operability that has not been verified by the performance of a surveillance requirement. Because the allowable outage time limits of some action requirements do not provide an appropriate time for performing a missed surveillance before shutdown requirements apply, the TS should include a time limit that allows a delay of required actions to permit the performance of the missed surveillance based on consideration of plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, and, of course the safety significance of the delay in completing the surveillance. The staff has concluded that 24 hours is an acceptable time limit for completing a missed surveillance when the allowable outage times of the action requirements are less than this limit, or when time is needed to obtain a temporary waiver of the surveillance requirement.

Failure to comply with specified surveillance frequencies is expected to be an infrequent occurrence. Use of the delay period established by the proposed TS is a flexibility which is not intended to be used as an operational convenience to extend surveillance intervals.

If a surveillance is not completed within the allowed delay period, then the equipment is considered inoperable, or the variable is considered outside the specified limits and the completion times of the required actions for the applicable LCO conditions begin immediately upon expiration of the delay period. If a surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the completion times of the required actions for the applicable LCO conditions begin immediately upon the failure of the surveillance.

The staff considers the proposed change to be acceptable because it is overly conservative to assume that systems or components are inoperable when a surveillance has not been performed and the proposed delay period provides adequate time to complete a surveillance that has been missed. The staff notes that the proposed change is consistent with the standard TSs, NUREG-1433, and GL 87-09.

### 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 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 (64 FR 48867). 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: R. Croteau

Date: October 13, 1999