

July 2, 1990

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. 124 TO FACILITY OPERATING LICENSE
NO. DPR-28 - VERMONT YANKEE NUCLEAR POWER STATION (TAC NO. 76131)

The Commission has issued the enclosed Amendment No. 124 to Facility Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station. This amendment is in response to your application dated March 5, 1990. In addition, we have corrected part of the Basis to Technical Specification 3.10, in response to your letter dated June 7, 1990.

This amendment changes Definition "Y" in the Technical Specifications. Specifically it removes the 3.25 limit on extending surveillance intervals as recommended by NRC Generic Letter 89-14, dated August 21, 1989.

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

This completes action under TAC 76131.

Sincerely,

151

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

Enclosures:

- 1. Amendment No. 124 to License No. DPR-28
- 2. Safety Evaluation

cc w/enclosures:
See next page

LA-PDI-3
MRushbrook
6/2/90

PM:PDI-3 MBF
MFairtile:mes
6/22/90

~~PDI-2
HSilver
/90~~

OGC
OPW
6/25/89

PDI-3/DIR
RWesman
7/2/90

Document Name: VY TAC NO. 76131
OFFICIAL RECORD COPY

9007110232 900702
PDR ADDCK 05000271
F FDC

DFOLCP
11/1/90



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

July 2, 1990

Docket No. 50-271

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.124 TO FACILITY OPERATING LICENSE
NO. DPR-28 - VERMONT YANKEE NUCLEAR POWER STATION (TAC NO. 76131)

The Commission has issued the enclosed Amendment No.124 to Facility Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station. This amendment is in response to your application dated March 5, 1990. In addition, we have corrected part of the Basis to Technical Specification 3.10, in response to your letter dated June 7, 1990.

This amendment changes Definition "Y" in the Technical Specifications. Specifically it removes the 3.25 limit on extending surveillance intervals as recommended by MRC Generic Letter 89-14, dated August 21, 1989.

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

This completes action under TAC 76131.

Sincerely,

Morton B. Fairtile

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

Enclosures:

1. Amendment No.124 to
License No. DPR-28
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. L. A. Tremblay, Senior Licensing Engineer

Vermont Yankee

cc:

Mr. J. Gary Weigand
President & Chief Executive Officer
Vermont Yankee Nuclear Power Corp.
R.D. 5, Box 169
Ferry Road
Brattleboro, Vermont 05301

Mr. John DeVincentis, Vice President
Yankee Atomic Electric Company
580 Main Street
Bolton, Massachusetts 01740-1398

Chairman, Board of Selectmen
Town of Vernon
Post Office Box 116
Vernon, Vermont 05353-0116

Mr. Raymond N. McCandless
Vermont Division of Occupational
and Radiological Health
Administration Building
Montpelier, Vermont 05602

Honorable John J. Easton
Attorney General
State of Vermont
109 State Street
Montpelier, Vermont 05602

Vermont Public Interest Research
Group, Inc.
43 State Street
Montpelier, Vermont 05602

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

Diane Curran, Esq.
Harmon, Curran & Tousley
2001 S Street, N.W., Suite 430
Washington, D.C. 20009

R. K. Gad, III
Ropes & Gray
One International Place
Boston, Massachusetts 02110

James Volz, Esq.
Special Assistant Attorney General
Vermont Department of Public Service
120 State Street
Montpelier, Vermont 05602

Mr. W. P. Murphy, Senior Vice President,
Operations
Vermont Yankee Nuclear Power Corporation
R.D. 5, Box 169
Ferry Road
Brattleboro, Vermont 05301

G. Dana Bisbee, Esq.
Office of the Attorney General
Environmental Protection Bureau
State House Annex
25 Capitol Street
Concord, New Hampshire 03301-6397

Mr. George Sterzinger, Commissioner
Vermont Department of Public Service
120 State Street, 3rd Floor
Montpelier, Vermont 05602

Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Public Service Board
State of Vermont
120 State Street
Montpelier, Vermont 05602

Mr. James P. Pelletier
Vice President - Engineering
Vermont Yankee Nuclear Power Corporation
P.O. Box 169, Ferry Road
Brattleboro, Vermont 05301

Mr. L. A. Tremblay

Vermont Yankee

cc:

Mr. Gustave A. Linenberger, Jr.
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

John Traficante, Esq.
Chief Safety Unit
Office of the Attorney General
One Ashburton Place, 19th Floor
Boston, Massachusetts 02108

Geoffrey M. Huntington, Esquire
Office of the Attorney General
Environmental Protection Bureau
State House Annex
25 Capitol Street
Concord, New Hampshire 03301-6397

Charles Bechhoefer, Esq.
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. James H. Carpenter
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

Robert M. Lazo, Chairman
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Frederick J. Shon
Administrative Judge
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Jerry Harbour
Administrative Judge
Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

AMENDMENT NO. 124 TO DPR-28 VERMONT YANKEE NUCLEAR POWER STATION DATED July 2, 1990

DISTRIBUTION:

Docket File 50-271 ←
NRC PDR
Local PDR
PDI-3 Reading
S. Varga
B. Boger
M. Rushbrook
M. Fairtile
R. Wessman
OGC
Dennis Hagan
E. Jordan
B. Grimes
G. Hill (4)
Wanda Jones - 7103 MNBB
J. Calvo
ACRS (10)
GPA/PA - 2G5 OWFN
ARM/LFMB
J. Johnson, Region I
V. Rooney, PDI-3
Thomas G. Dunning, OTSB/DOEA
H. Silver, PDII-2



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. 124
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 March 5, 1990 and supplemented on June 7, 1990 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:

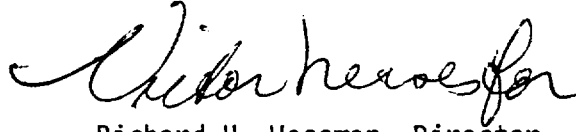
Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 124, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

9007110235 900702
PDR ADOCK 05000271
P FDC

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

FOR THE NUCLEAR REGULATORY COMMISSION



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: July 2, 1990

ATTACHMENT TO LICENSE AMENDMENT NO.124

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove

4
178

Insert

4
178

- 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.
- 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. Vital Fire Suppression Water System - The vital fire suppression water system is that part of the fire suppression system which protects those instruments, components, and systems required to perform a safe shutdown of the reactor. The vital fire suppression system includes the water supply, pumps, and distribution piping with associated sectionalizing valves, which provide immediate coverage of the Reactor Building, Control Room Building, and Diesel Generator Rooms.

VYNPS

AUXILIARY ELECTRIC POWER SYSTEMS

- A. The objective of this Specification is to assure that adequate power will be available to operate the emergency safeguards equipment. Adequate power can be provided by any one of the following sources: either of the startup transformers, backfeed through the main transformer, the 4160 volt line from the Vernon Hydroelectric Station or either of the two diesel generators. The backfeed through the main transformer and 4160 volt Vernon line are both delayed access off-site power sources. Backfeeding through the main transformer can be accomplished by disconnecting the main generator from the main transformer and energizing the auxiliary transformer from the 345 kV switchyard through the main transformer. The time required to perform this disconnection is approximately six hours. The 4160 volt line from the Vernon Hydroelectric Station can be connected to either of the two emergency buses within seconds by simple manual switching operation in the Main Control Room.

Two 480 V Uninterruptible Power Systems supply power to the LPCIS valves via designated Motor Control Centers. The 480 V Uninterruptible Power Systems are redundant and independent of any on-site power sources.

This Specification assures that at least two off-site and two on-site power sources, and both 480 V Uninterruptible Power Systems will be available before the reactor is taken beyond "just critical" testing. In addition to assuring power source availability, all of the associated switchgear must be operable as specified to assure that the emergency cooling equipment can be operated, if required, from the power sources.

Station service power is supplied to the station through either the unit auxiliary transformer or the startup transformers. In order to start up the station, at least one startup transformer is required to supply the station auxiliary load. After the unit is synchronized to the system, the unit auxiliary transformer carries the station auxiliary load, except for the station cooling tower loads which are always supplied by one of the startup transformers. The station cooling tower loads are not required to perform an engineered safety feature function in the event of an accident; therefore, an alternate source of power is not essential. Normally one startup transformer supplies 4160 volt Buses 1 and 3, and the other supplies Buses 2 and 4; however, the two startup transformers are designed with adequate capacity such that, should one become or be made inoperable, temporary connections can be made to supply the total station load (less the cooling towers) from the other startup transformer.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO.124 TO FACILITY OPERATING LICENSE NO. DPR-28

VERMONT YANKEE NUCLEAR POWER CORPORATION

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

INTRODUCTION

By letter dated March 5, 1990, the Vermont Yankee Nuclear Power Corporation (the licensee) proposed changes to the Technical Specifications (TS) for Vermont Yankee. The proposed change removes the provision of Definition "Y" in the TS section entitled 1.0 DEFINITIONS that limits the combined timed interval for three consecutive surveillances to less than 3.25 times the specified interval. Guidance on this proposed change to TS was provided to all power reactor licensees and applicants by the NRC Generic Letter 89-14, dated August 21, 1989.

In addition the licensee advised of a needed change to basis page 178 for Technical Specification 3.10, Auxiliary Power Systems by letter dated June 7, 1990.

EVALUATION

Definition "Y" includes the provision that allows a surveillance interval to be extended by 25 percent of the specified time interval. This extension provides flexibility for scheduling the performance of surveillances and to permit consideration of plant operating conditions that may not be suitable for conducting a surveillance at the specified time interval. Such operating conditions include transient plant operation or ongoing surveillance or maintenance activities. Definition "Y" further limits the allowance for extending surveillance intervals by requiring that the combined time interval for any three consecutive surveillances not exceed 3.25 times the specified time interval. The purpose of this provision is to assure that surveillances are not extended repeatedly as an operational convenience to provide an overall increase in the surveillance interval.

Experience has shown that the 18-month surveillance interval, with the provision to extend it by 25 percent, is usually sufficient to accommodate normal variations in the length of a fuel cycle. However, the NRC staff has routinely granted requests for one-time exceptions to the 3.25 limit on extending refueling surveillance because the risk to safety is low in contrast to the alternative of a forced shutdown to perform these surveillances. Therefore, the 3.25 limitation on extending surveillances has not been a practical limit on the use of the 25-percent allowance for extending surveillances that are performed on a refueling outage basis.

9007110236 900702
PDR ADOCK 05000271
PDC

Extending surveillance intervals during plant operation can also result in a benefit to safety when a scheduled surveillance is due at a time that is not suitable for conducting the surveillance. This may occur when transient plant operating conditions exist or when safety systems are out of service for maintenance or other surveillance activities. In such cases, the benefit to safety of extending a surveillance interval would exceed any safety benefit derived by limiting the use of the 25-percent allowance to extend a surveillance. Furthermore, there is the administrative burden associated with tracking the use of the 25-percent allowance to ensure compliance with the 3.25 limit.

In view of these findings, the staff concluded that Definition "Y" should be changed to remove the 3.25 limit for all surveillances because its removal will have an overall positive effect upon safety. The guidance provided in our Generic Letter 89-14 included the following change to this specification and removes the 3.25 limit on three consecutive surveillances with the following statement:

"4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval."

The licensee has proposed changes to Definition "Y" that are consistent with the guidance provided in Generic Letter 89-14, as noted above. On the basis of its review of this matter, the staff finds that the above change to the TS for Vermont Yankee Nuclear Power Station is acceptable.

Page 178 of the Basis to Technical Specification 3.10 has been changed to reflect current design. Because this page is part of the Basis it is descriptive and does not affect requirements.

ENVIRONMENTAL CONSIDERATION

The amendment involves changes with respect to the use of facility components located within the restricted area as defined in 10 CFR Part 20 and surveillance requirements. 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 off-site, and that there is no significant increase in individual or cumulative occupational exposure. The staff has determined that the amendment involves no significant-hazards consideration, and there has been no public comment on such finding. 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 this amendment.

CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (55 FR 12602) on April 4, 1990. The Commission consulted with the State of Vermont. No public comments were received and the State of Vermont did not have any comments.

On the basis of the considerations discussed above, the staff has concluded 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: Thomas G. Dunning
Vernon L. Rooney

Dated: July 2, 1990