

Docket No. 50-271

August 24, 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. 126 TO FACILITY OPERATING LICENSE
NO. DPR-28 - VERMONT YANKEE NUCLEAR POWER STATION (TAC NOS. 77050
and 72041)

The Commission has issued the enclosed Amendment No. 126 to Facility Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station. This amendment is in response to your application dated June 11, 1990. In addition, we have corrected part of the Basis to Technical Specification 4.2, in response to your letter dated November 28, 1989.

This amendment modifies the Technical Specifications to add several NRC reviewed and approved methodologies for use in generating the limits in the Core Operating Limits Report.

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 NOS. 77050 and 72041.

Sincerely,

~~ORIGINAL~~ SIGNED BY:

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

Enclosures:

1. Amendment No. 126 to
License No. DPR-28
2. Safety Evaluation

cc w/enclosures:

See next page

OFC	:PDI-3/(A)LA	:DST/SRXB	:PDI-3/PM	:OGC	:PDI-3/PM DIR
NAME	:B. Dayton	:P. Jones	:MB Fairtile	:E. Holler	:VNerses
DATE	:1/2/90	:7/18/90	:7/24/90	:8/6/90	:8/13/90

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Document Name: VY TAC NOS. 77050 AND 77041

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Mr. L. A. Tremblay

- 2 -

cc w/enclosures:

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Mr. L. A. Tremblay

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

AMENDMENT NO. 126 TO DPR-28 VERMONT YANKEE NUCLEAR POWER STATION DATED August 24, 1990

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Docket File 50-271

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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. 126
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 June 11, 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

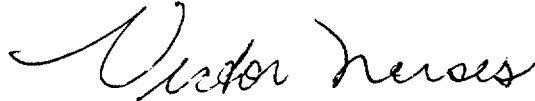
The Technical Specifications contained in Appendix A, as revised through Amendment No. 126, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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PDC

August 24, 1990

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

FOR THE NUCLEAR REGULATORY COMMISSION



Victor Nerses, Acting 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: August 24, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 126

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.

<u>Remove</u>	<u>Insert</u>
67a	67a
209a	209a 209b*

*Denotes new page

VYNPS

THIS PAGE DELETED

VYNPS

Report, J. M. Holzer, "Methods for the Analysis of Boiling Water Reactors Transient Core Physics," YAE-1239P, August 1981 (Approved by NRC SER, dated September 15, 1982).

Report, S. P. Schultz and K. E. St. John, "Methods for the Analysis of Guide Fuel Rod Steady-State Thermal Effects (FROSSTEY): Code/Model Description Manual," YAE-1249P, April 1981 (Approved by NRC SER, dated September 27, 1985).

Report, A. A. F. Ansari, "Methods for the Analysis of Boiling Water Reactors: Steady-State Core Flow Distribution Code (FIBWR)," YAE-1234, December 1980 (Approved by NRC SER, dated September 15, 1982).

Report, S. P. Schultz and K. E. St. John, "Methods for the Analysis of Oxide Fuel Rod Steady-State Thermal Effects (FROSSTEY): Code Qualification and Application," YAE-1265P, June 1981 (Approved by NRC SER, dated September 27, 1985).

Report, A. A. F. Ansari and J. T. Cronin, "Methods for the Analysis of Boiling Water Reactors: A System Transient Analysis Model (RETRAN)," YAE-1233, April 1981. (Approved by NRC SERs, dated November 27, 1981 and September 4, 1984).

Report, A. A. F. Ansari, K. J. Burns and D. K. Beller, "Methods for the Analysis of Boiling Water Reactors: Transient Critical Power Ratio Analysis (RETRAN-TCPYA01)," YAE-1299P, March 1982 (Approved by NRC SER, dated September 15, 1982).

Report, A. S. DiGiovine, et al., "CASMO-3G Validation," YAE-1363-A, April 1988.

Report, A. S. DiGiovine, J. P. Gorski, and M. A. Tremblay, "SIMULATE-3 Validation and Verification," YAE-1659-A, September 1988.

Report, R. A. Woehlke, et al., "MICBURN-3/CASMO-3/TABLES-3/SIMULATE-3 Benchmarking of Vermont Yankee Cycles 9 through 13," YAE-1683-A, March 1989.

Report, J. T. Cronin, "Method for Generation of One-Dimensional Kinetics Data for RETRAN-02," YAE-1694-A, June 1989.

Report, V. Chandola, M. P. LeFrancois, and J. D. Robichaud, "Application of One-Dimensional Kinetics to Boiling Water Reactor Transient Analysis Methods," YAE-1693-A, Revision 1, November 1989.

VYNPS

Report, "Loss-of-Coolant Accident Analysis for Vermont Yankee Nuclear Power Station," NEDO-21697, August 1977, as amended (Approved by NRC SER, dated November 30, 1977).

Report, "General Electric Standard Application for Reactor Fuel (GESTARII)," NEDE-24011-P-A-9, GE Company Proprietary, September 1988, as amended.

The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met. The COLR, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

B. Reportable Occurrences

This section deleted.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 126 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 June 11, 1990, Vermont Yankee Nuclear Power Corporation (the licensee) proposed changes to the Technical Specifications (TS) for Vermont Yankee. The proposed changes would add to Technical Specification 6.7.A.4 six NRC reviewed and approved methodologies for use in generating the limits in the Core Operating Limits Report (COLR). Technical Specification 6.7.A.4 presently requires that certain core operating limits be established and documented in the COLR before each reload cycle. These requirements pertain to:

- (a) The Average Planar Linear Heat Generation Rates (APLHGR) for Specifications 3.11.A and 3.6.G.1a, (b) The K_e core flow adjustment factor for Specification 3.11.C., (c) The Minimum Critical Power Ratio (MCPR) for Specifications 3.11.C and 3.6.G.1a, and (d) The Linear Heat Generation Rates (LHGR) for Specifications 2.1.A.1a, 2.1.B.1, and 3.11.B.

Technical Specification 6.7.A.4 further requires that these limits be determined by certain methods which have been previously reviewed and approved by the NRC, and which are listed in Technical Specification 6.7.A.4.

In addition, the licensee advised of a needed deletion of Basis page 67a for Technical Specification 4.2, Protective Instrumentation by letter dated November 28, 1989.

2.0 EVALUATION

Technical Specification 6.7.A.4 requires that the COLR be submitted, upon issuance, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector. The report provides the values of cycle-specific parameter limits that are applicable for the current fuel cycle. Furthermore, this specification requires that the values of these limits are established using NRC approved methodology and be consistent with all applicable limits of the safety analysis. The proposed additions to the approved methodologies are the following:

- a. Report, A. A. F. Ansari, "Methods for the Analysis of Boiling Water Reactors: Steady-State Core Flow Distribution Code (FIBWR)," YAEF 1234, December 1980.
- b. Report A. S. DiGiovine, et al., CASMO-3G Validation, YAEF-1363-A, April 1988
- c. Report A. S. DiGiovine, J. P. Gorski, and M. A. Tremblay, SIMULATE-3 Validation and Verification, YAEF-1659-A, September 1988
- d. Report, R. A. Woehlke, et al., MICBURN-3/CASMO-3/TABLES-3/SIMULATE-3 Benchmarking of Vermont Yankee Cycles 9 through 13, YAEF-1683-A, March 1989
- e. Report, J. T. Cronin, Method for Generation of One-Dimensional Kinetics Data for RETRAN-02, YAEF-1694-A, June 1989
- f. Report, V. Chandola, M. P. LeFrancois, and J. D. Robichaud, Application of One-Dimensional Kinetics to Boiling Water Reactor Transient Analysis Methods, YAEF-1693-A, Revision 1, November 1989

All of the above methodologies have been reviewed and approved by the NRC staff. Accordingly, the staff finds that the proposed changes are acceptable.

Page 67a of the Basis to TS 4.2 has been deleted to reflect current design. The complete deletion of this Basis page removes language that is no longer applicable to the plant.

3.0 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.

4.0 CONCLUSIONS

We have reviewed the request by the Vermont Yankee Nuclear Power Corporation to modify the Technical Specifications of the Vermont Yankee plant that would add six NRC reviewed and approved methodologies for use in generating the limits in the COLR. Based on this review, we conclude that the addition of these six reports to the TS is acceptable.

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (55 FR 30315) on July 25, 1990, and consulted with the State of Vermont. No public comments were received and the State of Vermont did not have any comments. The staff concludes that the proposed change to the Technical Specifications is acceptable.

Principal Contributor: V. L. Rooney

Dated: August 24, 1990