Distribution
Docket File
AEC PDR
Local PDR
RP Reading
Branch Reading
JRBuchanan, ORNL
TWLaughlin, DTIE
EPA (3)
VMoore, L:BWR
DJSkovholt, L:OR
RLTedesco, L:CS
TJCarter, L:OR
ACRS (16)
RO (3)
Massar, OGC
Change No. 9
License No. DPR-28

JUN 11 1973

Docket No. 50-271

Vermont Yankee Nuclear Power Corporation
ATTN: Mr. Albert A. Cree, President
77 Grove Street
Rutland, Vermont 05701

Gentlemen:

In response to our letter of May 3, 1973, regarding reporting of operating data and effluent releases, your letter dated May 23, 1973, proposed changes to the Technical Specifications of Facility License No. DPR-28 for Vermont Yankee Nuclear Power Station that would incorporate reporting requirements consistent with current regulatory practices.

During our review, we informed your staff that certain modifications to the proposed changes were necessary to meet regulatory requirements. These modifications have been made.

We have reviewed your proposed changes, as modified, and have determined that they conform to Regulatory Guides 1.16 and 1.21. We conclude that Change No. 9 does not present significant hazards considerations and that there is reasonable assurance that the health and safety of the public will not be endangered.

Accordingly, pursuant to Section 50.59 of 10 CFR Part 50, the Technical Specifications appended to Facility License No. DPR-28 are hereby changed as set forth in Attachment A to this letter.

Sincerely,

/S/

Donald J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing

MJinks, DRA (4)
SKari, L:RP
RVollmer, L:QA
DLZiemann, L:ORB #2
FDAnderson, L:ORB #2
RMDiggs, L:ORB #2
NDube, OPS

Enclosure:
Attachment A - Changes to Technical Specifications

cc: See next page

OFFICE ▶		L:ORB #2	L:ORB #2	L:ORB #2	L:OR	
SURNAME ▶		X7403 FDAnderson:sjh	RMDiggs	DLZiemann	DJSkovholt	
DATE ▶		6/8/73	6/7/73	6/9/73	6/11/73	

Form AEC-318 (Rev. 9-53) AECM 0240 GPO c43—16—81465-1 445-678

cc: Mr. Lawrence E. Minnick, Vice President
Vermont Yankee Nuclear Power Corporation
Turnpike Road, Route 9
Westboro, Massachusetts 01581

John A. Ritsher, Esquire
Ropes and Gray
225 Franklin Street
Boston, Massachusetts 02110

Gregor I. McGregor, Esquire
Assistant Attorney General
Department of the Attorney General
State House, Room 370
Boston, Massachusetts 02133

Richard E. Ayres, Esquire
David Schoenbrod, Esquire
National Resources Defense Council, Inc.
15 West 44th Street
New York, New York 10036

Honorable James M. Jeffords
Attorney General
State of Vermont
Montpelier, Vermont 05602

Anthony Z. Roisman, Esquire
Berlin, Roisman and Kessler
1712 N Street, N. W.
Washington, D. C. 20036

Jonathon N. Brownell, Esquire
Paterson, Gibson, Noble & Brownell
26 State Street
Montpelier, Vermont 05602

Peter S. Paine, Jr., Esquire
Cleary, Gottleib, Steen & Hamilton
52 Wall Street
New York, New York 10005

J. Eric Anderson, Esquire
Fitts and Olson
16 High Street
Brattleboro, Vermont 05301

William H. Ward, Esquire
Assistant Attorney General
Office of the Attorney General
State Capitol Building
Topeka, Kansas 66612

Donald W. Stever, Jr., Esquire
Office of the Attorney General
State House Annex
Concord, New Hampshire 03301

Chairman, Vermont Public Service
Corporation
Seven School Street
Montpelier, Vermont 05602

John W. Stevens, Director
Conservation Society of Southern
Vermont
P. O. Box 256
Townshend, Vermont 05353

Brooks Memorial Library
Mrs. June Bryant
224 Main Street
Brattleboro, Vermont 05301

ATTACHMENT A

CHANGE NO. 9 TO THE TECHNICAL SPECIFICATIONS

FACILITY LICENSE NO. DPR-28

VERMONT YANKEE POWER CORPORATION

DOCKET NO. 50-271

1. Change the Table of Contents to read as stated in the attached page.

2. Change page 1 in Section 1.0, Definitions, to read as stated in the attached page.

3. Delete the definitions in Section 1.0, Definitions, for H. Limiting Conditions for Operation (LCO), I. Limiting Safety System Setting (LSSS), and X. Safety Limit.

4. Change Section 6.7 Plant Reporting Requirements in its entirety to read as stated in the attached pages.

TABLE OF CONTENTS

1.0 DEFINITIONS

The succeeding frequently used terms are explicitly defined so that a uniform interpretation of the specifications may be achieved.

A. Abnormal Occurrence - An abnormal occurrence means the occurrence of any plant condition that:

1. Causes a Limiting Safety System Setting to exceed the setting established in Section 2 of the Technical Specifications,

2. Exceeds a Limiting Condition for Operation as established in Section 3 of the Technical Specifications,

3. Causes any uncontrolled or unplanned release of radioactive material to the unrestricted area in excess of 10 times the radioactive effluent release limits established in Section 3.8 of the Technical Specifications,

4. Results in one or more engineered safety features or plant protection system component failure which causes or threatens to cause the feature or component to be incapable of performing its intended function as defined in the Technical Specifications or SAR,

5. Results in abnormal degradation of one of the several boundaries which are designed to contain the radioactive materials resulting from the fission process,

6. Results in uncontrolled or unanticipated changes in reactivity of greater than 1% Δk,

7. Causes conditions arising from natural or offsite manmade events that affect or threaten to affect safe operation of the plant, or

8. Results in observed inadequacies in the implementation of administrative or procedural controls such that the inadequacy causes or threatens to cause the existence or development of an unsafe condition in connection with the operation of the plant.

B. Alteration of the Reactor Core - The act of moving any component in the region above the core support plate, below the upper grid and within the shroud. Normal movement of the control rods, or the neutron detectors is not defined as a core alteration.

C. Hot Standby - Hot standby means operation with the reactor critical, system pressure less than 600 psig, and the main steam isolation valves closed.

D. Immediate - Immediate means that the required action will be initiated as soon as practicable considering the safe operation of the unit and the importance of the required action.

E. Instrument Calibration - An instrument calibration means the adjustment of an instrument signal output so that it corresponds, within acceptable range and accuracy, to a known value(s) of the parameter which the instrument monitors. Calibration shall encompass the entire instrument including actuation, alarm, or trip.

F. Instrument Check - An instrument check is qualitative determination of acceptable operability by observation of instrument behavior during operation. This determination shall include, where possible, comparison of the instrument with other independent instruments measuring the same variable.

G. Instrument Functional Test - An instrument functional test means the injection of a simulated signal into the instrument primary sensor

6.7 PLANT REPORTING REQUIREMENTS

The following information shall be submitted to the USAEC in addition to the reports required by Title 10, Code of Federal Regulations.

A. Operation Reports

Operation reports shall be submitted in writing to the Director of Licensing, USAEC, Washington, D. C. 20545.

1. Startup Report

A summary of unit startup and power escalation testing shall be submitted following receipt of operating licenses, following amendments to the licenses involving a planned increase in power level, following the installation of fuel that has a different design and/or has been manufactured by a different fuel supplier, or following modifications to an extent that the nuclear, thermal, or hydraulic performance of the unit may be significantly altered. The report shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall be described. Startup reports shall be submitted within one year following commencement of commercial power operation, i.e., initially following synchronization of the turbo-generator to produce commercial power or resumption of commercial power operation.

2. First Year Operation Report

A report shall be submitted within 60 days after completion of the first year of commercial power operation as defined above. This report may be incorporated into the semiannual operating report and shall cover the following:

a. an evaluation of unit performance to date in comparison with design predictions and specifications;

b. a reassessment of the safety analysis submitted with the license application in light of measured operating characteristics when such measurements indicate that there may be substantial variance from prior analyses:

c. an assessment of the performance of structures, systems, and components important to safety; and

d. a progress and status report on any items identified as requiring additional information during the operating license review or during the startup of the plant, including items discussed in the AEC's safety evaluation, items on which additional information was required as conditions of the license and items identified in the licensee's startup report.

3. Semiannual Operating Report

A report covering a six-month period shall be submitted within 60 days after January 1 and July 1 of each year and include the following:

a. Operations Summary

A summary of operating experience occurring during the reporting period that relates to the safe operation of the plant, including a summary of:

(1) changes in plant design,

(2) performance characteristics (e.g., equipment and fuel performance),

(3) changes in procedures which were necessitated by (1) and (2) or which otherwise were required to improve the safety of facility operations,

(4) results of surveillance tests and inspections required by these technical specifications,

(5) the results of any periodic containment leak rate tests performed during the reporting period,

(6) a brief summary of those changes, tests, and experiments requiring authorization from the Commission pursuant to 10 CFR 50.59(a), and

(7) any changes in the plant operating organization which involve positions which are designated as key supervisory personnel on Figure 6.1.1.

b. Power Generation

A summary of power generated during the reporting period including:

(1) gross thermal power generated (in MWH),

(2) gross electrical power generated (in MWH),

(3) net electrical power generated (in MWH),

(4) number of hours the reactor was critical,

(5) number of hours the generator was on-line, and

(6) histogram of thermal power vs time.

c. Shutdowns

Descriptive material covering all outages occurring during the reporting period. For each outage, information shall be provided on:

(1) the cause of the outage,

(2) the method of shutting down the reactor; e.g., trip, automatic rundown or manually controlled deliberate shutdown,

(3) duration of the outage (in hours),

(4) unit status during the outage; e.g., cold shutdown or hot shutdown, and

(5) corrective action taken to prevent repetition, if appropriate.

d. Maintenance

A discussion of safety related maintenance (excluding preventative maintenance) performed during the reporting period on systems and components [Safety related is defined in ANSI-N18.7-1972 (ANS-3.2, November 2, 1972)] and on systems and components that reduce or prevent the release of radioactive material to the environs. For any malfunctions for which corrective maintenance was required, information shall be provided on:

(1) the system or component involved,

(2) the cause of the malfunction,

(3) the results and effect on safe operation,

(4) corrective action taken to prevent repetition, and

(5) precautions taken to provide for reactor safety during repair.

e. Changes, Tests, and Experiments

A brief description and the summary of the safety evaluation for those changes, tests, and experiments which were carried out without prior Commission approval, pursuant to the requirements of §50.59(b) of the Commission's regulations.

f. Radioactive Effluent Releases

A statement of the quantities of radioactive effluents released from the plant, with data summarized on a monthly basis following a standard format as issued by the AEC.

(1) Gaseous Effluents

(a) Gross Radioactivity Releases

(i) Total gross radioactivity (in curies), primarily noble and activation gases.

(ii) Maximum gross radioactivity release rate during any one-hour period.

(iii) Total gross radioactivity (in curies) by nuclide released, based on representative isotopic analysis performed.

(iv) Percent of technical specification limit.

(b) Iodine Releases

(i) Total iodine radioactivity (in curies) by nuclide released, based on representative isotopic analyses performed.

(ii) Percent of technical specification limit for I-131 released.

(c) Particulate Releases

(i) Total gross radioactivity (β,γ) released (in curies) excluding background radioactivity.

(ii) Gross alpha radioactivity released (in curies) excluding background radioactivity.

(iii) Total gross radioactivity (in curies) of nuclides with half-lives greater than eight days.

(iv) Percent of technical specification limit for particulate radioactivity with half-lives greater than eight days.

(2) Liquid Effluents

(a) Total gross radioactivity (β,γ) released (in curies) excluding tritium and average concentration released to the unrestricted area.

(b) Total tritium and total alpha radioactivity (in curies) released and average concentration released to the unrestricted area.

(c) Total dissolved gas radioactivity (in curies) and average concentration released to the unrestricted area.

(d) Total volume (in liters) of liquid waste released.

(e) Total volume (in liters) of dilution water used prior to release from the restricted area.

(f) The maximum concentration of gross radioactivity (β,γ) released to the unrestricted area (averaged over the period of release).

(g) Total gross radioactivity (in curies) by nuclide released, based on representative isotopic analyses performed.

(h) Percent of technical specification limit for total radioactivity.

g. Solid Waste

(1) The total amount of solid waste shipped (in cubic feet).

(2) The total estimated radioactivity (in curies) involved.

(3) The dates of shipment and disposition if shipped off site.

h. Environmental Monitoring

(1) For each medium sampled during the reporting period, e.g., air, river bottom, surface water, soil, fish, include:

(a) Number of sampling locations,

(b) Total number of samples,

(c) Number of locations at which levels are found to be significantly above local backgrounds, and

(d) Highest, lowest, and the average concentrations or levels of radiation for the sampling point with the highest average and description of the location of that point with respect to the site.

(2) If levels of radioactive materials in environmental media as determined by an environmental monitoring program indicate the likelihood of public intakes in excess of 1% of those that could result from continuous exposure to the concentration values listed in Appendix B, Table II, 10 CFR Part 20, estimates of the likely resultant exposure to individuals and to population groups, and assumptions upon which estimates are based shall be provided.

(3) If statistically significant variations of offsite environmental concentrations with time are observed, correlation of these results with effluent release shall be provided.

i. Occupational Personnel Radiation Exposure

Tabulate the number of occupational personnel exposures for plant operations personnel (permanent and temporary) in the following exposure increments for the reporting period: Less than 100 mRem, 100-500 mRem, 500-1250 mRem, 1250-2500 mRem, and greater than 2500 mRem. Tabulate the number of personnel receiving more than 500 mRem exposure in the reporting period according to duty function, i.e., routine plant surveillance and inspection (regular duty), routine plant maintenance, special plant maintenance (describe maintenance), routine refueling operations, special refueling operation (describe operation) and other job related exposures. Annually tabulate the number of personnel receiving more than 2500 mRem and report major cause(s).

B. Non-Routine Reports

1. Abnormal Occurrence Reports

Notification shall be made within 24 hours by telephone and telegraph to the Director of the Regional Regulatory Operations Office (cc to the Director of Licensing) followed by a written report within 10 days to the Director of Licensing (cc to the Director of the Regional Regulatory Operations Office) in the event of the abnormal occurrences as defined in Section 1.0. The written report on these abnormal occurrences and, to the extent possible, the preliminary telephone and telegraph* notification shall: (a) describe, analyze, and evaluate safety implications, (b) outline the measures taken to assure that the cause of the condition is determined, (c) indicate the corrective action (including any changes made to the procedures and to the quality assurance program) taken to prevent repetition of the occurrence and of similar occurrences involving similar components or systems, and (d) evaluate the safety implications of the incident in light of the cumulative experience obtained from the record of previous failures and malfunctions of similar systems and components.

2. Unusual Events

A written report shall be forwarded within 30 days to the Director of Licensing and to the Director of the Regional Regulatory Operations Office in the event of:

a. Discovery of any substantial errors in the transient or accident analyses or in the methods used for such analyses, as described in the Safety Analysis Report or in the bases for the technical specifications.

b. Discovery of any substantial variance from performance specifications contained in the technical specifications or in the Safety Analysis Report.

c. Discovery of any condition involving a possible single failure which, for a system designed against assumed single failures, would result in a loss of the capability of the system to perform its safety function.

*Telegraph notification may be sent on the next working day in the event of an abnormal occurrence during a weekend or holiday period.