

February 14, 1977

Docket No.: 50-271

Yankee Atomic Electric Company  
ATTN: Mr. Robert H. Groce  
Licensing Engineer  
20 Turnpike Road  
Westboro, Massachusetts 01581

Gentlemen:

The Commission has issued the enclosed Amendment No. 31 to Facility Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station. The amendment includes changes to the Technical Specifications in response to your application dated July 16, 1975, as modified July 15, 1976.

This amendment changes the license and Technical Specifications relating to the receipt, possession, and use of byproduct, source and special nuclear material. As discussed with your staff, changes have been made to your proposal to meet regulatory requirements.

A copy of this letter and its enclosures are being provided to the Division of Fuel Cycle and Material Safety (Radioisotopes Licensing Branch) for termination of Byproduct Material License No. 44-B669-03. Since all of the byproduct materials under that license were used in connection with operation of the Vermont Yankee Nuclear Power Station, the byproduct materials are now encompassed within the enclosed facility license amendment.

Copies of the Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Original: [Signature]

Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Enclosures:

1. Amendment No. 31
2. Safety Evaluation
3. Federal Register Notice

60 271  
cont. 1

OFFICE ➤	ORB#4:DOR	ORB#4:DOR	ORB#4:DOR	C-ORB#4:DOR	OELD
SURNAME ➤	RIngram	GVissing	PDiBenedetto	RReid	A. Mitchell
DATE ➤	1/2/77	1/2/77	1/3/77	2/14/77	2/9/77

Yankee Atomic Electric Company

cc w/enclosure(s):

Mr. James E. Griffin, President  
Vermont Yankee Nuclear Power Corporation  
77 Grove Street  
Rutland, Vermont 05701

Mr. Donald E. Vandenburg, Vice President  
Vermont Yankee Nuclear Power Corporation  
Turnpike Road, Route 9  
Westboro, Massachusetts 01581

John A. Ritsher, Esquire  
Ropes & 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  
Natural Resources Defense Council  
917 - 15th Street, N. W.  
Washington, D. C. 20005

Honorable M. Jerome Diamond  
Attorney General  
State of Vermont  
109 State Street  
Pavilion Office Building  
Montpelier, Vermont 05602

John A. Calhoun  
Assistant Attorney General  
State of Vermont  
109 State Street  
Pavilion Office Building  
Montpelier, Vermont 05602

Anthony Z. Roisman, Esquire  
Berlin, Roisman and Kessler  
1025 15th Street, N.W., 5th Floor  
Washington, D. C. 20005

Brooks Memorial Library  
224 Main Street  
Brattleboro, Vermont 05301

John R. Stanton, Director  
Radiation Control Agency  
Hazen Drive  
Concord, New Hampshire 03301

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

Mr. David M. Scott  
Radiation Health Engineer  
Agency of Human Services  
Division of Occupational Health  
P. O. Box 607  
Barre, Vermont 05641

New England Coalition on  
Nuclear Pollution  
Hill and Dale Farm  
West Hill - Faraway Road  
Putney, Vermont 05346

Mr. Raymond H. Puffer  
Chairman  
Board of Selectman  
Vernon, Vermont 05354

Chief, Energy Systems  
Analyses Branch (AW-459)  
Office of Radiation Programs  
U. S. Environmental Protection  
Agency  
Room 645, East Tower  
401 M Street, S.W.  
Washington, D.C. 20460

Yankee Atomic Electric  
Company

U. S. Environmental Protection  
Agency  
Region I Office  
ATTN: EIS COORDINATOR  
JFK Federal Building  
Boston, Massachusetts 02203

cc w/enclosures and cy of VY's  
filing dtd.: 7/16/75 & 7/15/76  
Public Service Board  
State of Vermont  
120 State Street  
Montpelier, Vermont 05602

Division of Fuel Cycle & Materials Safety  
Nuclear Regulatory Commission  
Washington, D.C. 20555



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. 31  
License No. DPR-28

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Vermont Yankee Nuclear Power Corporation (the licensee) dated July 16, 1975, as modified July 15, 1976, 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;
  - E. The receipt, possession and use of the byproduct, source and special nuclear material as authorized by this license amendment will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including Sections 30.33, 40.32, 70.23 and 70.31;
  - F. 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, Facility Operating License No. DPR-28 is hereby amended as indicated below and by changes to the Technical Specifications as indicated in the attachment to this license amendment:

A. Delete paragraphs 2.B and 2.C and add:

- 2.B. Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation as described in the Final Safety Analysis Report, as Supplemented and amended.
- 2.C. Pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for calibration of reactor instrumentation and radiation monitoring equipment, and as fission detectors in amounts as required;
- 2.D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components.

B. Change the number of remaining paragraph 2.D to 2.E.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: February 14, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 31

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Revise Appendix A Technical Specifications as follows:

Remove Pages

206

207

Insert Pages

206

207

207a

The changed areas on the revised pages are shown by marginal lines.

VYNPS

- C. Procedures prepared for A and B above shall be reviewed and approved by the Plant Superintendent or the Assistant Plant Superintendent and the Manager of Operations.
- D. Temporary changes to procedures described in Specification 6.5.A above which do not change the intent of the original procedure may be made with the concurrence of two individuals holding senior operator licenses. Such changes shall be documented and subsequently reviewed by the PORC and approved by the Plant Superintendent or Assistant Plant Superintendent.
- E. Temporary changes to procedures described in Specification 6.5.B may be made with the concurrence of an individual holding a senior operator license and the health physicist on duty.
- F. Practice of site evacuation exercises shall be conducted annually, following emergency procedures and including a check of communications with off-site support groups. Annual reviews of the Emergency Plan shall be performed.
- G. Licensed radioactive sealed sources shall be leak tested for contamination. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an agreement State as follows:
  - 1. Each licensed sealed source except startup sources previously subjected to core flux, containing radioactive materials, other than Hydrogen 3, with half-life greater than thirty days and in any form, other than gas, shall be tested for leakage and/or contamination at intervals not to exceed six months.
  - 2.. The periodic leak test required does not apply to sealed sources that are stored and are not being used. The sources exempted from this test shall be tested for leakage prior to any use or transfer to another user unless they have been leak tested within six months prior to the date of use or transfer. In the absence of a certificate from a transferer indicating that a leak test has been made within six months prior to the transfer, sealed sources shall not be put into use until tested.
  - 3. Each sealed startup source shall be tested within 31 days prior to being subjected to core flux and following repair or maintenance to the source.

The leakage test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, it shall immediately be withdrawn from use, decontaminated, and repaired, or be disposed of in accordance with Commission regulations.

Notwithstanding the periodic leak tests required by this Technical Specification, any licensed sealed source is exempt from such leak test when the source contains 100 microcuries or less of beta and/or gamma emitting material or 5 microcuries or less of alpha emitting material.

A Special Report shall be prepared and submitted to the Commission within 90 days if source leakage tests reveal the presence of  $\geq$  0.005 microcuries of removable contamination.

## 6.6. PLANT OPERATING RECORDS

- A. Records and/or logs relative to the following items shall be kept in a manner convenient for review and shall be retained for at least five years:
1. Records of normal plant operation, including power levels and periods of operation at each power level.
  2. Records of principal maintenance activities, including inspection and repair or principal items of equipment pertaining to nuclear safety.
  3. Records of reportable occurrences.
  4. Records of periodic checks, inspection and/or calibrations performed to verify that surveillance requirements are being met.
  5. Records of any special reactor test or experiments.
  6. Records of changes made in the Operating Procedures.
  7. Records of radioactive shipments.
  8. Test results, in units of microcuries, for leak tests performed on licensed sealed sources.
  9. Results of annual physical inventory verifying accountability of licensed sources on record.
- B. Records and/or logs relative to the following items shall be recorded in a manner convenient for review and shall be retained for the life of the plant:
1. Records of substitution or replacement of principal items of equipment pertaining to nuclear safety.
  2. Records of changes and drawing changes made to the plant as it is described in the Safety Analysis Report.
  3. Records of plant radiation and contamination surveys.
  4. Records of new and spent fuel inventory, transfers of fuel, and assembly histories.
  5. Records of radioactivity in liquid and gaseous wastes released to the environment.
  6. Records of radiation exposure for all plant personnel, including all contractors and visitors to the plant in accordance with 10 CFR 20.



VYNPS

7. Records of transient or operational cycling for those plant components that have been designed to operate safely for a limited number of transients or operational cycles.
8. Records of inservice inspections of the reactor coolant system.
9. Minutes of meetings of the Plant Operation Review Committee and the Nuclear Safety Audit and Review Board.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 31 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 July 16, 1975, Vermont Yankee Nuclear Power Corporation (VYNPC) proposed a license amendment which included Technical Specification changes to provide in a generalized manner for special nuclear, source and byproduct material. VYNPC proposed the changes in response to our letter dated January 24, 1975. In reference to our June 11, 1976 request, VYNPC provided additional information, dated July 15, 1976, which included changes to the original proposed amendment and technical specification changes and included a program description.

Evaluation

The licensee has replaced specific descriptions of special nuclear, source, and byproduct material which appear in the license with a generalized description according to a format acceptable to us. We have reviewed the license language generically and found that it provides the degree of specificity necessary to assure that plant activities can be conducted without endangering the health and safety of the public. The changes simplify the language and therefore may avoid unnecessary license amendments in the future. The licensee has proposed technical specifications for leak testing and surveillance of sources, and has submitted an FSAR change containing information described in Regulatory Guide 1.70.3.

We have reviewed the material submitted by the licensee in support of the proposed license amendment and technical specification change and have suggested a change in the program description. We have discussed this change with VYNPC and they have agreed to add to the program description a phrase that will indicate that sources housed in secured areas are stored in suitably shelved containers. VYNPC also agreed to certain minor typographical changes to the Technical

Specifications. We conclude that this material satisfies Regulatory Guide 1.70.3 and provides reasonable assurance that the radioactive material will be stored and used in a manner to meet the applicable radiation protection provisions of 10 CFR Parts 20, 30 and 70.

#### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

#### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: February 14, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER CORPORATION

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 31 to Facility Operating License No. DPR-28, issued to Vermont Yankee Nuclear Power Corporation (the licensee), which revised Technical Specifications for operation of the Vermont Yankee Nuclear Power Station (the facility) located in Vernon, Vermont. The amendment is effective as of its date of issuance.

The amendment changes the license and Technical Specifications relating to the receipt, possession, and use of byproduct, source, and special nuclear material.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

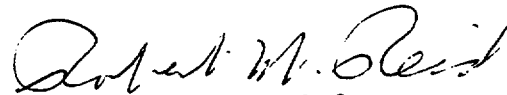
The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated July 16, 1975, as modified July 15, 1976, (2) Amendment No. 31 to License No. DPR-28, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D.C. and at the Brooks Memorial Library, 224 Main Street, Brattleboro, Vermont.

A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 14th day of February 1977.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors