

September 15, 1977

Docket No.: 50-271

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Gentlemen:

Pursuant to an Initial Decision of the Atomic Safety and Licensing Board dated August 30, 1977, the Commission has issued the enclosed Amendment No. 37 to Facility Operating License No. DPR-28 for the Vermont Yankee Nuclear Power Station. This amendment consists of changes to the Technical Specifications in response to your application for amendment dated November 5, 1976, as supplemented, and staff discussions.

This amendment permits you to replace the storage racks in the present spent fuel storage pool, increasing its capacity in phases from 600 fuel assemblies to 2000 fuel assemblies.

A copy of the Notice of Issuance/Negative Declaration is also enclosed. Our related Safety Evaluation and Environmental Impact Appraisal were forwarded to you with our letter dated June 10, 1977. Supplement 1 to these documents was forwarded by letter dated June 20, 1977.

Sincerely,

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

Enclosures:

1. Amendment No. 37
2. Notice/Negative Declaration

cc w/enclosures: See next page

*Subject to F.R. notice dated 9/15/77*  
*done 9/15/77*  
*RB*

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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. 37  
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 November 5, 1976, as supplemented, 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.

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 Appendices A and B, as revised through Amendment No. 37, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Gerald B. Zivertzy for*  
Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 15, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 37

FACILITY OPERATING LICENSE NO. DPR-28

DOCKET NO. 50-271

Revise Appendix A Technical Specifications as follows:

Remove Pages

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Insert Pages

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**3.12 LIMITING CONDITIONS FOR OPERATION**

**4.12 SURVEILLANCE REQUIREMENT**

**2. Crane Travel**

Spent fuel casks shall be prohibited from travel over irradiated fuel assemblies.

b. No-load mechanical and electrical tests will be conducted prior to lifting the empty cask from its transport vehicle to verify proper operation of crane controls, brakes and lifting speeds. A functional test of the crane brakes will be conducted each time an empty cask is lifted clear of its transport vehicle.

**2. Crane Travel**

Crane travel limiting mechanical stops shall be installed on the crane trolley rails prior to cask handling operations to prohibit cask travel over irradiated fuel assemblies.

**H. Spent Fuel Pool Water Temperature**

Whenever irradiated fuel is stored in the spent fuel pool, the pool water temperature shall be maintained below 150°F.

**H. Spent Fuel Pool Water Temperature**

Whenever irradiated fuel is in the spent fuel pool, the pool water temperature shall be recorded daily. If the pool water temperature reaches 150°F, all refueling operations tending to raise the pool water temperature shall cease and measures taken immediately to reduce the pool water temperature below 150°F.



## 3.12 &amp; 4.12 (Continued)

- G. The operability requirements of the reactor building crane ensures that the redundant features of the crane have been adequately inspected just prior to using it for handling of a spent fuel cask. The redundant hoist system ensures that a load will not be dropped for any postulated credible single component failures. Details of the design of the redundant features of the crane and specific testing requirements for the crane are delineated in the Vermont Yankee document entitled "Reactor Building Crane Modification" (December, 1975).
- H. The spent fuel pool cooling system is designed to maintain the pool water temperature below 125°F during normal refueling operations. If the reactor core is completely discharged, the temperature of the pool water may increase to greater than 125°F. The RHR system supplemental fuel pool cooling may be used under these conditions to maintain the pool water temperature less than 150°F.

5.5 Spent and New Fuel Storage

- A. The new fuel storage facility shall be such that the effective multiplication factor ( $k_{eff}$ ) of the fuel, dry is less than 0.90 and flooded is less than 0.95.
- B. The  $K_{eff}$  of the fuel in the spent fuel storage pool shall be less than or equal to 0.95.
- C. Spent fuel storage racks may be moved (only) in accordance with written procedures which ensure that no rack modules are moved over fuel assemblies.
- D. The number of spent fuel assemblies stored in the spent fuel pool shall not exceed 2000.
- E. The average enrichment of the spent fuel stored in the spent fuel pool shall not exceed 16 grams of uranium-235 per longitudinal centimeter of assembly.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-271

VERMONT YANKEE NUCLEAR POWER CORPORATION

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE  
AND  
NEGATIVE DECLARATION

The U. S. Nuclear Regulatory Commission (the Commission) has, pursuant to the Initial Decision of its Atomic Safety and Licensing Board dated August 30, 1977, issued Amendment No. 37 to Facility Operating License No. DPR-28, issued to the Vermont Yankee Nuclear Power Corporation (the licensee), which revised the Technical Specifications for operation of the Vermont Yankee Nuclear Power Station (the facility) located near Vernon, Vermont. The amendment is effective as of its date of issuance.

The amendment revised the Technical Specifications to permit phased replacement of the existing spent fuel storage racks having a capacity of 600 fuel assemblies with new storage racks having a capacity of 2000 fuel assemblies.

The Initial Decision is effective immediately, but is subject to review by an Atomic Safety and Licensing Appeal Board prior to its becoming final. Any decision or action taken by an Atomic Safety and Licensing Appeal Board in connection with the Initial Decision may be reviewed by the Commission.

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.

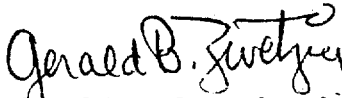
Notice of Proposed Issuance of the Amendment was published in the Federal Register on December 9, 1976 (41 F.R. 53871). Interventions were sought by and granted in accordance with 10 CFR 2.714 to New England Coalition on Nuclear Pollution, Conservation Society of Southern Vermont and Vermont Public Interest Research Group, collectively (NECNP) as one intervenor; in addition, intervention was granted to the State of Vermont. The State of New Hampshire participated solely as an "interested State" pursuant to 10 CFR 2.715(c). An evidentiary hearing was held on June 21, 1977, following a special prehearing conference held on April 26, 1977, and subsequently the above-referenced Initial Decision was issued August 30, 1977.

The Commission has prepared an Environmental Impact Appraisal (EIA) for this action. The Atomic Safety and Licensing Board concluded in its Initial Decision that the EIA is comprehensive and that authorizing modification of the spent fuel storage pool is not a major Commission action significantly affecting the quality of the human environment, and therefore, an Environmental Impact Statement is not required.

For further details with respect to this action, see (1) the application for amendment dated November 5, 1976, as supplemented by filings dated February 1, April 4 and 27, May 11, and June 3, 1977, (2) Amendment No. 37 to License No. DPR-28, (3) the Commission's related Safety Evaluation dated June 10, 1977, and Supplement 1 dated June 20, 1977, (4) the Commission's Environmental Impact Appraisal dated June 10, 1977, and Supplement 1 dated June 20, 1977, and (5) the Initial Decision of the Atomic Safety and Licensing Board dated August 30, 1977. 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), (3), (4), and (5) 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 15th day of September 1977.

FOR THE NUCLEAR REGULATORY COMMISSION



Gerald B. Zwetzig, Acting Chief  
Operating Reactors Branch #4  
Division of Operating Reactors