



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

YANKEE ATOMIC ELECTRIC COMPANY

DOCKET NO. 50-29

YANKEE NUCLEAR POWER STATION (YANKEE-ROWE)

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 31
License No. DPR-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Yankee Atomic Electric Company (the licensee) dated August 17, 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; 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.

8011170 401

ATTACHMENT TO LICENSE AMENDMENT NO. 31.

FACILITY LICENSE NO. DPR-3

DOCKET NO. 50-29

A. Revise Appendix A of current Technical Specifications as follows:

Remove page 2 and insert revised page 2.

B. Revise Appendix A of Standard Technical Specifications issued with Amendment No. 27 (Effective January 1977) as follows:

Replace pages 3/4 1-23 and 3/4 1-24 with revised pages 3/4 1-23 and 3/4 1-24 (no change has been made on page 3/4 1-24).

- 214 Nuclear Instrumentation System
- 215 Radiation Monitoring System
- 218 Fuel Handling System
- 224 Compressed Air Systems
- 231 Vapor Containment
- 232 Radiation Shielding
- 235 Architectural Features

Physical arrangements of structures and equipment will be as described in Section 200 of the license application. Mechanical equipment and systems will be interconnected as shown in the Fundamental Flow Diagram included in that section.

Electrical equipment and systems which provide station auxiliary power supply will be as described in Section 226 of the license application and will be interconnected as shown in the 2400 volt one-line diagram and the 480 volt one-line diagram, sheets 1, 2 and 3, included in that section.

The ventilation system for the control room area, radiochemical laboratory, decontamination cubicle, fuel transfer pit house, and other potentially contaminated portions of the Turbine Generator Service, Primary Auxiliary, and Waste Disposal Buildings shall be in accordance with the description contained in Section 228 of Part B of the license application.

3. The Performance Analysis for the current reload core, "Yankee Nuclear Power Station Core XII Performance Analysis, July 9, 1975" (as supplemented October 10, 1975, February 19, 1976, and August 17, 1976), and the "Additional LOCA Analysis - Appendix B" dated February 20, 1976, are incorporated as part of these technical specifications. The analysis presented in the FSAR for Core XI forms the basis for the reference core performance analysis.

C. PERFORMANCE SPECIFICATIONS

Calculated values of operating variables such as pressures, temperatures, flows, heat fluxes, reactivity coefficients and on-site radiation levels under steady state and transient conditions which are stated in the sections of the license application listed in Paragraph B, above, are considered to be performance specifications of the reactor and are incorporated by reference herein. Yankee shall not operate the facility under circumstances where there is a substantial variance between the foregoing performance specifications and the corresponding values determined by operation of the facility.

The performance and function of the systems described in the following sections of the license application shall be substantially as described; however, the details of individual components and their arrangement as described in each of these sections may be altered by Yankee at its own discretion provided that such an alteration would not violate some other provision of these Technical Specifications:

REACTIVITY CONTROL SYSTEMS

3/4.1.3 MOVABLE CONTROL RODS

CONTROL ROD OPERABILITY

LIMITING CONDITION FOR OPERATION

3.1.3.1 All control rods which are inserted in the core shall be OPERABLE and positioned within ± 8 inches (indicated position) of every other rod in their group.

APPLICABILITY: MODES 1* and 2*

ACTION:

- a. With one or more control rods inoperable due to being immovable as a result of excessive friction or mechanical interference or known to be untrippable, determine that the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied within 1 hour and be in HOT STANDBY within 6 hours.
- b. With more than one control rod inoperable or misaligned from any other rod in its group by more than ± 8 inches (indicated position), be in HOT STANDBY within 6 hours.
- c. With one control rod inoperable or misaligned from any other rod in its group by more than ± 8 inches (indicated position), POWER OPERATION may continue provided that within one hour either:
 1. The rod is restored to OPERABLE status within the above alignment requirements, or
 2. The rod is declared inoperable and the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied. POWER OPERATION may then continue provided that:
 - a) An analysis of the potential ejected rod worth is performed within 3 days and the rod worth is determined to be $< 0.75\% \Delta k$ at zero power and $< 0.5\% \Delta k$ at RATED THERMAL POWER for the remainder of the fuel cycle, and

*See Special Test Exceptions 3.10.2 and 3.10.4.

LIMITING CONDITION FOR OPERATION (Continued)

- b) The SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is determined at least once per 12 hours, and
- c) A power distribution map is obtained from the movable incore detectors and F_0 and F_{10} are verified to be within their limits within 72 hours.
- d) The THERMAL POWER level is reduced to $< 75\%$ of THERMAL POWER allowable for the Main Coolant pump combination within one hour and within the next 4 hours the Power Range and Intermediate Power Range Neutron Flux high trip setpoint is reduced to $< 103\%$ of the 75% of allowable THERMAL POWER, or
- e) The remainder of the rods in the group with the inoperable rod are aligned to within ± 8 inches of the inoperable rod within one hour while maintaining the rod sequence and insertion limits of Figures 3.1-1 and 3.1-2; the THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.5 during subsequent operation.

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position of each control rod shall be determined to be within the limit by verifying the individual rod positions at least once per 4 hours.

4.1.3.1.2 Each control rod not fully inserted shall be determined to be OPERABLE by movement of at least 4 inches in any one direction at least once per 31 days.

4.1.3.1.3 The maximum reactivity insertion rate due to withdrawal of the highest worth control rod group shall be determined not to exceed $1.5 \times 10^{-4} \Delta k/k$ per second at least once per 18 months.