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

MAINE YANKEE ATOMIC POWER COMPANY

DOCKET NO. 50-309

MAINE YANKEE ATOMIC POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 67
License No. DPR-36

1. The Nuclear Regulatory Commission (the Commission) has found that:

A. The application for amendment by Maine Yankee Atomic Power Company, (the licensee) dated October 7, 1982, 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 2.B(6)(b) of Facility Operating License No. DPR-36 is hereby amended to read as follows:

   (b) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 67 , 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

Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 9, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 67

TO FACILITY OPERATING LICENSE NO. DPR-36

DOCKET NO. 50-309

Revise Appendix A as follows:

Remove Page	Insert Page
3.3-1 through 3.3-3	3.3-1 through 3.3-3

3.3 REACTOR COOLANT SYSTEM OPERATIONAL COMPONENTS

Applicability:

Applies to the operating status of the reactor coolant system equipment.

Objective:

To specify conditions of reactor coolant system components for reactor operation.

Specification:

A. Reactor Coolant Pumps

1. At least one reactor coolant pump or one low pressure safety injection pump operating in the residual heat removal mode shall be in operation providing flow through the reactor when the reactor coolant system boron concentration is being reduced.

2. At least one reactor coolant pump shall be in operation providing flow through the core with its steam generator capable of performing its heat transfer function whenever the reactor is in a critical condition. A second loop shall be maintained operable to perform its heat transfer function should the operating loop become inoperable.

3. At least three reactor coolant pumps shall be in operation providing flow through the core with their steam generators performing their heat transfer function whenever the reactor is in a power operation condition.

Exception: The requirement of 2 and 3 may be modified during initial testing to permit power levels not to exceed 10% of rated power with three loops operating on natural circulation.

B. Pressurizer Safety and Relief Valves

1. At least one pressurizer code safety valve shall be operable whenever fuel is in the reactor and the reactor coolant system is isolated from the residual heat removal system and the head is on the vessel.

2. At least two pressurizer code safety valves shall be operable whenever the reactor is critical.

3. One power operated relief valve (PORV) and its associated block valve shall be operable whenever the reactor coolant system temperature is greater than 210°F.

Exception: The power operated relief valve may be closed and rendered inoperable for purposes of hydrostatic testing.

4. In the event either PORV or its associated block valve becomes inoperable, within six hours: either restore the PORV or block valve to operable status or close and remove power from the associated block valve.

C. Pressurizer

1. The pressurizer shall be operable with at least one bank of proportional heaters and a water level between 28 and 60 percent during normal system operation whenever the reactor coolant system T_{avg} is greater than 500°F.

2. The pressurizer spray system must be lined up to provide continuous pressurizer spray flow whenever the reactor is critical.

Basis:

Reactor coolant pump flow and steam generator heat transfer capabilities are specified to assure adequate core heat transfer capability under all operating conditions from criticality to full power. Three loop operation is specified to assure plant operation is restricted to conditions considered in the LOCA analyses.

The exception permits testing to determine decay heat removal capabilities of the primary system prior to higher power operation while on natural circulation.

Following a loss of offsite power, stored and decay heat from the reactor would normally be removed by natural circulation using the steam generators as the heat sink. Water supply to the steam generators is maintained by the auxiliary feedwater system. Natural circulation cooling of the primary system requires the use of the pressurizer heaters or high pressure safety injection pumps to maintain a suitable overpressure on the reactor coolant system. Alternatively, in the event that natural circulation in the reactor coolant system is interrupted, the feed and bleed mode of reactor coolant system operation can be used to remove decay heat from the reactor. This method of decay heat removal requires the use of the emergency core cooling system (ECCS) and the power-operated relief valves (PORVs) in the pressurizer.

The PORVs can be operated either manually or automatically in the Maine Yankee design. Block valves are provided upstream of the relief valves to isolate the valve in the event that a PORV fails.

The exception permits hydrostatic testing of the Reactor Coolant System in accordance with the ASME code when the test pressure approaches the PORV setpoint.

When reactor coolant boron concentration is being reduced, the process must be uniform throughout the reactor coolant system volume to prevent stratification of reactor coolant at a lower boron concentration which could result in a reactivity insertion.

Sufficient mixing of the reactor coolant is assured by one low pressure safety injection (LPSI) pump operating in the RHR mode. When operated in this mode it will circulate the reactor coolant system volume in less than 12 minutes. The pressurizer volume is relatively inactive; therefore, it will tend to have a boron concentration higher than the rest of the reactor coolant system during a dilution operation. A continuous pressurizer spray

flow will maintain a nominal spread between the boron concentration in the pressurizer and the reactor coolant system during the addition of boron. Without residual heat removal, the amount of steam which could be generated at safety valve lift pressure with the reactor subcritical would be less than half of one valve's capacity. One valve, therefore, provides adequate defense against overpressurization when the reactor is subcritical.

Overpressure protection is provided for all critical conditions. The safety valves are sized to relieve steam at a rate equivalent to the peak volumetric pressure surge rate. For this purpose one safety valve is sufficient; however, a minimum of two safety valves is required by Section III of the ASME Code.