



Proposed Change No. 73
Supplement No. 1

MAINE YANKEE ATOMIC POWER COMPANY
ENGINEERING OFFICE

TURNPIKE ROAD (RT. 9)
WESTBORO, MASSACHUSETTS 01581
617-366-9011

PC-73-2
B.3.2.1
WMY 80-28

February 15, 1980

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Office of Nuclear Reactor Regulation

Reference: (1) License No. DPR-36 (Docket No. 50-309)
(2) Maine Yankee letter to NRC, WMY 79-143, Proposed Change No. 73, dated December 5, 1979
(3) Maine Yankee letter to NRC, WMY 79-109, dated October 7, 1976
(4) USNRC letter to MYAPC dated January 22, 1980
(5) MYAPC letter to USNRC, WMY 80-10, dated January 21, 1980

Subject: Reactor Protection System Setpoint Modifications

Dear Sir:

Pursuant to Section 50.59 of the Commission's Rules and Regulations, Maine Yankee Atomic Power Company hereby proposes the following modifications to Appendix A of the Operating License.

PROPOSED CHANGE:

Reference is made to the Technical Specifications contained in Appendix A to Operating License No. DPR-36 issued to Maine Yankee Atomic Power Company for the Maine Yankee plant and to Reference 2. We propose to modify these specifications as follows:

- A. Replace page 2.1-4, of Specification 2.1 "LIMITING SAFETY SYSTEM SETTING - REACTOR PROTECTION SYSTEM", with the revised page 2.1-4.
- B. Replace Figures 3.10-3, 3.10-4, and 3.10-5 of Specification 3.10 with the attached revised Figures 3.10-3, 3.10-4 and 3.10-5.

REASON FOR CHANGE:

The power peaking factors used to determine the RPS setpoints for Cycle 5, as reported in Reference (2), were generated using the expected End-of-Cycle (EOC) 4 burnup of 10,000 MWD/MT. Cycle 4 was actually operated longer than anticipated and achieved an EOC4 burnup of 10,500 MWD/MT. This

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additional 500 MWD/MT burnup results in a slightly higher radial peaking factor at the beginning of the cycle with the magnitude of the effect decreasing with Cycle 5 operation. The axial peaking factor essentially remains unchanged. The modifications proposed here to the RPS setpoints and Technical Specifications are required to reflect this increase in Cycle 5 peaking.

BASIS FOR CHANGE:

Attachment A to Reference (2), YAEC-1202, provided the Core Performance Analysis Report in support of Maine Yankee Cycle 5 operation. This report addressed the mechanical design, thermal-hydraulic design, physics and safety analysis aspects of the refueling. Table 5.3 of YAEC-1202, presents a summary of the safety analysis results for Maine Yankee Cycle 5. The FSAR design power distribution was used to generate the values of MDNBR reported in Table 5.3 since it is more limiting than the limiting Cycle 5 power distributions. This remains true when the Cycle 5 peaking increases described above are considered. With one exception the results reported in Table 5.3 of YAEC-1202 are unaffected by the increase in peaking described above. The percentage of fuel pins which experience a DNBR less than 1.3 for the seized pump rotor accident is increased from 7.2 to 8.4%. A radiological release analysis shows this result to be well within the bounds of 10CFR100.

SAFETY CONSIDERATIONS:

Based on the considerations contained herein and in Reference (2), it is concluded that there is reasonable assurance that operation of the Maine Yankee plant consistent with the proposed Technical Specifications will not endanger the health and safety of the public. This proposed change has been reviewed by the Nuclear Safety Audit and Review Committee.

FEE DETERMINATION:

According to your letter, Reference (4), this proposed change requires an approval that involves a complex issue. For these reasons Maine Yankee Atomic Power Company submits this change as a Class IV Amendment, rather than a Class III as previously submitted, Reference (2). A payment of \$4,000.00 was previously submitted in Reference (5), the balance of \$8,300.00 is enclosed herein, and no additional payment is deemed necessary.

SCHEDULE FOR CHANGE:

These changes to the Maine Yankee Technical Specifications will be implemented upon Commission approval. A timely review and approval of this submittal consistent with our schedule for Cycle 5 startup would be appreciated. Cycle 5 is scheduled to commence on or about March 1, 1980.

