HAZARDS ANALYSIS BY THE RESEARCH AND POWER REACTOR SAFETY BRANCH

DIVISION OF LICENSING AND REGULATION

IN THE MATTER OF

YANKEE ATOMIC ELECTRIC COMPANY

PROPOSED CHANGE NO. 18

Introduction

Pursuant to the provisions of paragraph 3.A of License No. DPR-3, as amended, Yankee Atomic Electric Company in Proposed Change No. 18, dated February 1, 1962, requested authorization to revise certain portions of the Normal Plant Operating Instructions which are contained in Section 504 of the license application. Paragraph D.1 of the technical specifications, which are attached as Appendix A to Yankee's operating license, provides that the Objectives, Conditions and Precautions set forth in Section 504 of the license application will be observed. Accordingly, any change which is to be made in those portions of the Normal Plant Operating Instructions must receive prior Commission approval.

Discussion

Proposed Change No. 18 provides for the revision and consolidation of the following Normal Plant Operating Instructions:

504 AI - Plant Startup - Reactor Startup from Cold Condition

504 A2 - Plant Startup - Reactor Startup from Hot Standby

504 A3 - Plant Startup - Reactor Startup Following Scram Condition

504 C1 - Plant Shutdown - Scheduled Reactor Shutdown

504 C2 - Plant Shutdown - Reactor Cooldown

504 D4 - Main Coolant System - Startup of Complete System

504 E - Pressure Control and Relief System

504 F - Charging and Volume Control System

In addition, Operating Instruction 504D7, Main Coolant System - Shutdown of Complete System, which was inadvertently left off the list in the Proposed Change, would also be revised and consolidated. In place of these Operating Instructions, three new and more comprehensive Operating Instructions would be used to govern the operations involved. These are as follows:

504 A1 - Plant Startup - Primary Plant Startup from Cold Condition

504 A2 - Plant Startup and Shutdown - Startup from Hot Standby Condition; Shutdown to Hot Standby Condition

504 C2 - Plant Shutdown - Reactor and Primary Plant Cooldown

Yankee has now operated its reactor at power for a period well in excess of one year. Such operation has afforded Yankee an opportunity to review the adequacy of the present Operating Instructions and to determine their need for revision. It is Yankee's opinion that the new Operating Instructions which they are now proposing are simpler, more concise and easier to follow than the present Operating Instructions. They believe that use of the revised Operating Instructions would increase the efficiency of performing the operations involved, and also that the proposed revision of the Operating Instructions would result in no basic change in the operation of the plant.

We have reviewed the Proposed Change and have noted several items which we believe should be altered from those contained in Proposed Change No. 18. These revisions, in which Yankee concurs, are for the purpose of clarification and to eliminate reference in the Technical Specifications to the requirements of a document which was not a part of the license application. The revisions are as follows:

Operating Instruction 504A1 III Precautions 5.c.	The requirements of this section should be changed to read "The pressurizer temperature and pressure must be controlled so that proper overpressure is maintained on the main coolant pumps".
Operating Instruction 504A1 III Precautions 14	The first sentence should be changed to read "During normal approach to criticality a flux multiplication rate of 1 decade/minute or less is acceptable".
Operating Instruction 504A1 III Precautions 15	This precaution should be revised to read "During normal approach to criticality, control rod withdrawal should be interrupted for approximately 1 minute whenever the count rate is doubled".

Operating Instruction 504C2 III Precautions 1	The requirements of this section should be revised to read "The pressurizer temperature and pressure must be controlled so that proper overpressure is maintained on the main coolant pumps and so that pressure commensurate with the change in reactor vessel NDT is not exceeded".
Operating Instruction 504C2 III Precautions 4	This precaution should be changed to read "Since reactivity is being inserted as the reactor is cooled down, special attention should be directed to the neutron instrumentation during this period".

In addition to the above revisions, the provision below should be added to the Precautions listed under Operation Instruction 504 A2 in order to insure that the spray line isolation valves, whose installation is being authorized by Change No. 12, will always be open when the reactor is operated at a substantial power level.

Operating Instruction 504A2 III Precautions 9	This new precaution should be as follows: "The pressurizer spray line shall not be isolated when the reactor power level is greater than 5 Mw thermal".

Conclusion

It is our opinion that Proposed Change No. 18 should incorporate the revisions which have been indicated. With such revisions, it is our opinion that Proposed Change No. 18 does not present significant hazards considerations not described or implicit in the license application as amended to June 23, 1962. In addition, we conclude that there is reasonable assurance that the health and safety of the public will not be endangered by operation of the facility as proposed and as revised.

Original signed
by Robert H. Bryan

Robert H. Bryan, Chief
Research & Power Reactor Safety Branch
Division of Licensing and Regulation

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