

SAFETY EVALUATION BY THE RESEARCH AND POWER REACTOR SAFETY BRANCH

DIVISION OF REACTOR LICENSING

IN THE MATTER OF

YANKEE ATOMIC ELECTRIC COMPANY

PROPOSED CHANGE NO. 64

DOCKET NO. 50-29

Introduction

Pursuant to the provisions of Section 50.59 of the Commission's regulations, Yankee Atomic Electric Company, in Proposed Change No. 64 dated June 23, 1965, requested Commission authorization of a change in the Technical Specifications of License No. DPR-3. The proposed change would authorize installation into the safety injection system of a liquid heating loop consisting of a shell and tube heat exchanger and a 100 gpm centrifugal pump, and the installation of a loop for purification of the contents of the safety injection system. This change will provide an improved method of heating the safety injection water, will add a means of water purification, and will permit faster draining of the shield tank cavity following refueling.

Discussion

The requested change is desired by the licensee because of recurrent leaks in the immersion type steam heating coils within the safety injection tank, and the limited accessibility to the tank. An easily accessible external heat exchanger will provide quicker and more efficient maintenance of the safety injection liquid heating system. The 100 gpm circulating pump will take suction from a point on the safety injection recirculation line and return the heated liquid to the safety injection pump suction line. We do not believe that safe operation of the Yankee reactor will be adversely affected by installation of the external heating loop.

The purification loop proposed will consist of filters or ion exchange beds, as may be required, and will be located in the existing ion exchange pit. There will be no interconnections with the existing main coolant purification system. If ion exchange is required to remove contaminants following refueling, only non-deborating beds will be used. Therefore, we do not believe safety of reactor operations will be adversely affected by the proposed purification loop.

Conclusion

We have concluded that the Proposed Change does not present significant hazards considerations not described or implicit in the hazards summary report, and that

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there is reasonable assurance that the health and safety of the public will not be endangered. Accordingly, we believe Proposed Change No. 64 should be authorized as proposed.

~~Original signed by~~
~~E. G. Case~~

Original signed by:
Roger S. Boyd

Roger S. Boyd, Chief
Research & Power Reactor Safety Branch
Division of Reactor Licensing

Date: JUL 16 1965