

DOCKET NO. 50-29

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. 11

Introduction

Pursuant to the provisions of paragraph 3.A. of License No. DPR-3, as amended, Yankee Atomic Electric Company in Proposed Change No. 11, dated December 6, 1961 requested authorization to install up to twelve special tube assemblies containing encapsulated specimens of reactor vessel material. This Proposed Change was subsequently amended by Supplement to Proposed Change No. 11 which was submitted on February 9, 1962. This Supplement reflected a modification in the proposed arrangement and location of the neutron detectors incorporated in the design of the special tube assemblies.

Discussion

Under Change No. 11 the tube assemblies will be placed in eight holes which have been provided in the upper flange of the core baffle and in four guide channels attached to the outer surface of the thermal shield. Installation of the specimens will be made in order to permit a determination of the long and short term effects of neutron bombardment on the physical properties of the material used in fabricating the Yankee reactor pressure vessel.

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Upon review of the Proposed Change, we have concluded that the specimens will remain securely in place in the reactor vessel during operation and will not have a significant effect on the operational characteristics of the reactor. Further, we believe that the knowledge gained from tests performed on the specimens subsequent to their removal from the core will contribute significantly to an understanding of the strength characteristics of the reactor pressure vessel and will, therefore, contribute to a safer operation of the facility.

Conclusion

In view of the above, it is our opinion that installation of the material specimens in the reactor does not present significant hazards considerations not described or implicit in the license application, as amended to June 23, 1961. In addition, we have concluded that there is reasonable assurance that the health and safety of the public will not be endangered by operation of the facility as proposed.

Robert H. Bryan, Chief
Research and Power Reactor Safety Branch
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Date: MAR 26 1962