



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 50

FACILITY OPERATING LICENSE NO. DPR-3

YANKEE ATOMIC ELECTRIC COMPANY

YANKEE NUCLEAR POWER STATION (YANKEE-ROWE)

DOCKET NO. 50-29

Introduction

By application dated June 7, 1978, Yankee Atomic Electric Company (the licensee) requested an amendment to Facility Operating License No. DPR-3 for the Yankee Nuclear Power Station (Yankee-Rowe). The amendment would revise technical specification 4.4.4 to eliminate specific pressurizer surveillance and add the requirements of 10 CFR 50.55a(g).

Discussion and Evaluation

The present limiting conditions for operations (LCO's) in the Technical Specifications require the pressurizer to be operable with a steam bubble. To assure that this LCO is met, the Technical Specifications presently include surveillance requirements to verify every 18 months: (1) satisfactory performance of the pressurizer functions specified in Sections 4.4.4.a.1 and 4.4.4.a.2 and (2) that the pressurizer relief valve opens and closes at the pressure setpoint settings specified in 4.4.4.b. In order to achieve consistency with currently accepted pressurizer surveillance practice, the licensee proposed to substitute surveillance requirements in accordance with 10 CFR 50.55a(g) for the existing pressurizer surveillance requirements in Section 4.4.4 of the Technical Specifications.

Achievement of a steam bubble in the pressurizer is a prerequisite condition for plant startup and power operation (Modes 1 and 2). The present requirements for the pressurizer to be operable with a steam bubble would be satisfied by testing and inspections of the pressurizer and associated relief and code safety valves in accordance with the provisions in 10 CFR 50.55a(g). Such surveillance is presently required for Yankee-Rowe and provides an acceptable degree of confidence that the integrity of the pressurizer pressure boundaries will be maintained. Thus, the detailed surveillance of pressurizer functions as presently required by Sections 4.4.4.a.1 and 4.4.4.a.2

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is not necessary and deletion of these provisions is acceptable. Furthermore, this proposed change is consistent with the Westinghouse Pressurized Water Reactor Standard Technical Specifications (W-STs) which are applicable to Yankee-Rowe.

The reactor coolant system, including the pressurizer, is protected against overpressurization by two pressurizer code safety valves. Each safety valve has sufficient capacity to relieve any potential overpressure condition during normal operation and reactor shutdown. The combined relief capacity of both safety valves is greater than the maximum surge rate from an assumed loss of load, with no credit for a reactor trip on loss of load, and assuming that the pressurizer relief valve or the steam dump valves do not perform their intended functions. Thus, the pressurizer relief valve does not perform a protective function. The purpose is to minimize undesirable opening of the code safety valves by relieving pressure surges below the lift setting of the code safety valves. No credit is taken in the safety analysis for operation of the pressurizer relief valve. Therefore, deletion of the surveillance requirement (4.4.4.b) for this valve is acceptable. This proposed deletion is also consistent with the W-STs which do not require the pressurizer relief valve to be operable or verification of the pressure setpoint settings of such valves. However, the W-STs do require the code safety valve to be inspected in accordance with Section XI of the Boiler and Pressure Vessel Code as required by 10 CFR 50.55a(g), including verification of its lift settings. Such surveillance is also required for the Yankee-Rowe code safety valves.

Based on our review of the licensee's June 7, 1978 application, as discussed above, we concluded that substitution of pressurizer surveillance provisions in Technical Specifications 4.4.4 as proposed does not decrease the level of safety of the facility, and is acceptable.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: July 31, 1978