



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 136 TO FACILITY OPERATING LICENSE NO. DPR-3

YANKEE ATOMIC ELECTRIC COMPANY

YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-029

INTRODUCTION

By letter dated June 25, 1990, the Yankee Atomic Electric Company (YAEC or the licensee) requested an amendment to Facility Operating License No. DPR-3 for the Yankee Nuclear Power Station (YNPS or the plant). The proposed amendment would simplify the Technical Specifications by specifying only the tank level and deleting the redundant gallons values for the Safety Injection Tank (SIT). Also, the "Bases" for Section 3/4.5.4 will be revised to show that the SIT reserve is increased from 40,000 gallons to 52,000 gallons.

EVALUATION

The Yankee Nuclear Power Station (YNPS) is installing a new stainless steel safety injection water storage tank to replace the existing aluminum tank. The configuration of the two tanks are different. The existing tank holds 125,000 gallons of borated water in a 30' diameter cylinder with radiused heads and is mounted above grade by support legs. The new tank will store 159,000 gallons in a 30' diameter cylinder with a flat bottom built on grade.

To maintain the system Net Positive Suction Head (NPSH) equivalent or better with the new tank, the current working water elevations will be duplicated in the new tank. The minimum level in the new tank will remain at 25.5'. The usable water volume of the new tank is increased because of the straight cylinder and flat-bottom construction being built on grade. The existing tank has 117,000 usable gallons at 25.5', measured from the bottom of the tank, the new tank will contain 129,000 usable gallons at 25.5', measured from the top of the suction nozzle.

The Technical Specification "Bases" for Section 3/4.5.4 states that the injection of 77,000 gallons is sufficient to limit core temperatures and containment pressure for the full spectrum of pipe ruptures in the LOCA analysis. The existing tank then allows for up to 40,000 gallons in the SIT as reserve. The new tank will provide 52,000 gallons as reserve. The word "level" is being substituted for "volume" to show gallonage relationship.

### ENVIRONMENTAL CONSIDERATION

This amendment involves a change in a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

### CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (55 FR 32335) on August 8, 1990. No public comments were received and the State of Massachusetts did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: September 10, 1990