



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 172

TO FACILITY OPERATING LICENSE NO. DPR-61

CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

DOCKET NO. 50-213

1.0 INTRODUCTION

By letter dated February 25, 1994, the Connecticut Yankee Atomic Power Company (CYAPCO/ licensee) submitted a request for changes to the Haddam Neck Plant Technical Specifications (TS). The requested changes will add a new Technical Specification 3/4.7.12, "Ultimate Heat Sink" and its associated Bases Section 3/4.7.12.

2.0 EVALUATION

By letter dated January 29, 1990, CYAPCO stated that elevated service water temperatures at the Haddam Neck Plant during the summer of 1989 necessitated the plant's development of a procedure whereby the plant would be downpowered and eventually shutdown, should the service water temperature exceed its temperature limit of 90°F. As a result of discussions with the NRC Region I Staff, CYAPCO committed to formalize the procedural steps into a technical specification on ultimate heat sink.

The temperature in the ultimate heat sink is limited to 90°F and is monitored by temperature elements, one in the inlets of each of the condenser water boxes. The data from the temperature elements is fed to the plant computer which continuously averages the values to produce one temperature which is displayed by the plant computer. The condenser inlet water box temperature elements provide a representative temperature of the water in the ultimate heat sink due to the mixing of water as it enters the intake structure and the arrangement of the service water and circulating water pumps. The plant computer provides continuous temperature monitoring of the ultimate heat sink. The technical specification and surveillance requires a daily check of the plant computer. The plant computer will alarm should the temperature exceed 90°F at any time. If the plant computer should be out of service, plant procedures require that the temperature of the ultimate heat sink be obtained hourly by locally monitoring the temperature of the condenser water box inlet.

The establishment of a technical specification limitation on the ultimate heat sink temperature during modes 1, 2, 3, and 4 will ensure that sufficient cooling is available to support all required design basis safety related functional requirements at the Haddam Neck Plant. The 90°F limit is stated in the Final Safety Analysis Report and has been determined to ensure that the design basis for the ultimate heat sink is not violated. The technical specification will ensure the temperature limit at any time is not exceeded while in the applicable operating mode. In addition, this amendment constitutes an additional limitation not presently included in the technical specifications. Based on the above, the staff concludes that this TS change is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Connecticut State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (59 FR 17596). Accordingly, the 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 the amendment.

5.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: May 31, 1994