



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

CONNECTICUT YANKEE ATOMIC POWER COMPANY

DOCKET NO. 50-213

HADDAM NECK PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 133
License No. DPR-61

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Connecticut Yankee Atomic Power Company (the licensee), dated June 14, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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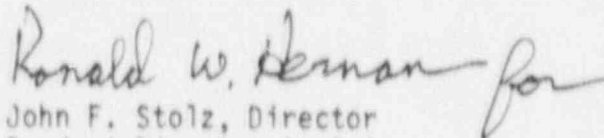
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-61 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 133, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 4, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 133

FACILITY OPERATING LICENSE NO. DPR-61

DOCKET NO. 50-213

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

VII
3/4 3-57
3/4 4-38

Insert

VII
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- ACTION 53 - With no channels OPERABLE, restore an inoperable channel(s) to OPERABLE status within 8 hours or within the next 1 hour establish a liquid level watch patrol to inspect the zone(s) without an OPERABLE channel at least once per hour.
- ACTION 54 - With no channels OPERABLE for Functional Unit 9, Safety Injection Pump Cubicle, the Minimum Channels OPERABLE requirement for Functional Unit 10, Condensate Return Pump Cubicle, must be met or take the action specified in ACTION 53, above.
- ACTION 55 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 7 days or within the next 8 hours establish a liquid level watch patrol to inspect the zone(s) with the inoperable channel at least once per hour. With no channels OPERABLE, take the action specified in ACTION 53, above.

TABLE 4.4-4

REACTOR COOLANT SPECIFIC ACTIVITY SAMPLE
AND ANALYSIS PROGRAM

<u>TYPE OF MEASUREMENT AND ANALYSIS</u>	<u>SAMPLE AND ANALYSIS FREQUENCY</u>	<u>MODES IN WHICH SAMPLE AND ANALYSIS REQUIRED</u>
1. Gross Radioactivity Determination	At Least once per 72 hours.	1, 2, 3, 4
2. Isotopic Analysis for DOSE EQUIVALENT I-131 Concentration	1 per 14 days.	1
3. Radiochemical for E Determination	1 per 6 months*.	1
4. Isotopic Analysis for Iodine Including I-131, I-133 and I-135	a) Once per 4 hours, whenever the specific activity exceeds 1 microCi/gram DOSE EQUIVALENT I-131 or 68/E microCi/gram of gross radioactivity, and	1**, 2**, 3**, 4**, 5**
	b) One sample between 2 and 6 hours following a THERMAL POWER change exceeding 15% of the RATED THERMAL POWER within a 1-hour period.	1, 2, 3

* Sample to be taken after a minimum of 2 EFPD and 20 days of POWER OPERATION have elapsed since reactor was last subcritical for 48 hours or longer. The provisions of Specification 4.0.4 are not applicable for entry into MODE 1.

** Until the specific activity of the Reactor Coolant System is restored within its limits.



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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 133

TO FACILITY OPERATING LICENSE NO. DPR-61

CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

DOCKET NO. 50-213

INTRODUCTION

By letter dated June 14, 1990 Connecticut Yankee Atomic Power Company (CYAPCO/licensee) proposed to amend Facility Operating License No. DPR-61 for the Haddam Neck Plant. The proposed amendment changes the Technical Specifications (TS) by adding an exception to the requirements of TS 4.0.4 for performing the E-bar surveillance (TS Table 4.4-4, Item 3) prior to entry into Mode 1. TS 4.0.4 prevents entry into an operational mode unless the Surveillance Requirements associated with the Limiting Conditions for Operation (LCO) of that mode have been performed within the stated surveillance interval. In addition, the amendment will correct typographical errors in Section 3/4.3.3 of the INDEX and ACTION items 54 and 55 of Table 3.3-11 to reference ACTION 53 instead of ACTION 48.

EVALUATION

E-bar is defined as the average of the sum of the average beta and gamma energies per disintegration (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) for isotopes, other than iodines, with half-lives greater than 15 minutes. The sample must be composed of at least 95% of the total non-iodine activity with half-lives greater than 15 minutes. The gross activity of the reactor coolant is limited by TS to 68/E-bar microcurie per gram. The TS require that the E-bar surveillance be performed once per 6 months. The TS also require that if the reactor has been subcritical for 48 hours or longer, the coolant sample should not be taken until after a minimum of 2 EFPD and 20 days of power operation. This allows the fission product activity in the coolant to reach steady state conditions. TS 4.0.4 requires the E-bar surveillance be performed prior to entering Mode 1. Most shutdowns or refueling are less than 6 months and TS 4.0.4 would have been performed within the stated surveillance interval. However, for an extended shutdown greater than 6 months, the TS are in conflict because TS 4.0.4 requires the E-bar surveillance be performed prior to the plant entering Mode 1 while TS Table 4.4-4 Item 3 requires that the surveillance not be performed until after 2 EFPD and 20 days of operation.

The TS amendment would provide an exception to FS 4.0.4 for Item 3 of Table 4.4-4. The delaying of the surveillance will not affect the radiological dose calculations or the confidence that the coolant activity is within specifications. The specific activity is limited by TS to be less than or equal to 1 microcurie per gram dose equivalent I-131 and the E-bar calculation. During initial operation, the licensee will administratively perform the E-bar surveillance with each major plant evolution (Mode changes and power changes). This will provide an administrative specific activity limit based on E-bar for the first 20 days of operation. This calculated limit for the first 20 days of operation will be more conservative than the limit that will be determined during steady state operation. The activity limit is inversely proportional to E-bar and early in operation E-bar is larger because it is dominated by corrosion products and long-lived fission products with high energy disintegrations (i.e., cobalt and cesium).

Based on the above the staff has determined that the proposed TS changes will have no adverse impact on plant safety and will maintain the intent of the current TS. Therefore, the staff concludes that the proposed TS change is acceptable.

The licensee has also proposed to correct three typographical errors. In the INDEX, Section 3/4.3.4, the word FOOD should be FLOOD. ACTION 54 and 55 of TABLE 3.3-11 should reference ACTION 53 rather than ACTION 48. The staff has reviewed these items and finds them acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes 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 and changes surveillance requirements. We have 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 staff 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, 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.

CONCLUSION

We have 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: December 4, 1990

Principal Contributor: A. Wang