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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 42 TO FACILITY OPERATING LICENSE

CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

DOCKET NO. 50-213

1.0 INTRODUCTION

By letter dated September 16, 1980, Connecticut Yankee Atomic Power Company (CYAPCo or the licensee) proposed changes to the Technical Specifications (TS) appended to Facility Operating License No. DPR-61 for the Haddam Neck Plant. The changes involve the incorporation of certain of the TMI-2 Lessons Learned Captegory "A" requirements. The licensee's request in is response to the NRC staff's letter dated July 2, 1980.

BACKGROUND INFORMATION

By our letter dated September 13, 1979, we issued to all operating nuclear power plants requirements established as a result of our review of the TMI-2 accident. Certain of these requirements, designated Lessons Learned Category "A" requirements, were to have been completed by the licensee prior to any operation subsequent to January 1, 1980. Our evaluation of the licensee's compliance with these Category "A" items was attached to our letter to CYAPCo dated May 7, 1980.

In order to provide reasonable assurance that operating reactor facilities are maintained within the limits determined acceptable following the implementation of the TMI-2 Lessons Learned Category "A" items, we requested that licensees amend their TS to incorporate additional Limiting Conditions for Operation and Surveillance Requirements, as appropriate. This request was transmitted to all licensees on July 2, 1980. Included therein were model specifications that we had determined to be acceptable. Each of the issues identified by the NRC staff and the licensee's response is discussed in the evaluation below, except auxiliary feedwater automatic initiation, which will be resolved in a separate issuance.

2.0 EVALUATION

2.1.1 Emergency Power Supply Requirements

The pressurizer water level indicators, pressurizer relief and block valves, and pressurizer heaters are important in a post-accident situation. Adequate emergency power supplies add assurance of post-accident functioning of these

components. The facility's design has the requisite emergency power supplies. We find the existing TS already provide appropriate surveillance and actions in the event of component inoperability and are thus acceptable.

2.1.3.a Direct Indication of PORV and SV Flow

CYAPCo has provided an acoustic monitoring system of the pressurizer power-operated relief valves (PORVs) and safety valves (SVs) to provide direct indication of flow through any of these valves in the control room. These indications are a diagnostic aid for the operators and provide no automatic action. CYAPCo has cubmitted TS that provide 31-day channel check and 18-month channel calibration requirements. These TS are acceptable as they meet our July 2, 1980 model TS criteria.

2.1.3.b Instrumentation for Inadequate Core Cooling

The licensee has installed an instrument system to detect the effects of inadequate core cooling. This instrument system, a subcooling meter, receives and processes date from existing plant instrumentation. We previously reviewed this system in our Safety Evaluation dated May 7, 1980. The licensee has agreed to TS with a monthly channel check and a refueling interval channel calibration requirement and appropriate actions to be taken in the event of component inoperability. We conclude the TS are acceptable as they provide adequate surveillance and meet our July 2, 1980 model TS criteria.

2.1.4 Diverse Containment Isolation

CYAPCo's response indicates that the TS regarding containment isolation valves are adequate in their current form. The existing system has diverse parameters, including high containment pressure and low pressurizer pressure, to be sensed and ensure automatic isolation of nonessential systems under postulated accident conditions. The TS provide for the appropriate actions and surveillance requirements. Therefore, we find the current TS acceptable.

2.1.4 Integrity of System Outside Containment

Our request indicated that licensees should propose a license condition to require a periodic System Integrity Measurements Program to prevent the release of significant amounts of radioactivity to the environment via leakage from engineered safety systems and auxiliary systems which are located outside reactor containment. The licensee's present program includes provisions for a preventative maintenance program and periodic visual inspections. The program also includes system leak test measurements at frequencies not to exceed refueling cycle intervals.

In lieu of a license condition, CYAPCo has agreed to place such a requirement in TS Section 6.15. Based on our review we find that inclusion of this requirement in the Administrative Controls Section of the TS satisfies our requirement and is acceptable.

2.1.7.b Auxiliary Feedwater Flow Indication

Our May 7, 1980 evaluation of this item found the control room instrumentation installed at the Haddam Neck Plant meets the intent of Item 2.1.7.b. The licensee has submitted TS with a monthly channel check and a refueling outage calibration requirement; thus, the TS are acceptable and they meet our July 2, 1980 model TS criteria.

2.1.8.c Iodine Monitoring

Our request indicated that the licensees should implement a program which will ensure the capability to determine the airborne iodine concentration in areas requiring personnel acces under accident conditions. The licensee's present program includes training of personnel, procedures for monitoring and provisions for maintenance of sampling and analysis equipment.

Again, CYAPCo has agreed to plance such a requirement in TS Section 6.16. Based on our review we find that inclusion of this requirement in the Administrative Controls Section of the TS satisfies our requirement and is acceptable.

2.2.1.b Shift Technical Advisor

Our request indicated that the TS related to minimum shift manning should be revised to reflect the augmentation of Shift Technical Advisor. The licensee's application would add one Shift Technical Advisor to each shift to perform the function of accident assessment during reactor operation. The individual performing this function will have at least a bachelor's degree or equivalent in a scientific or engineering discipline with special training in plant design, and response and analysis of the plant for transients and accidents. Part of the Shift Technical Advisor duties are related to operating experience review function. Based on our review, we find the licensee's submittal satisfies our requirement and is, therfore, acceptable.

3.0 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.

4.0 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: October 8, 1981