October 28, 1991

Docket No. 50-213

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Mr. Edward J. Mroczka
Senior Vice President
Nuclear Engineering and Operations
Connecticut Yankee Atomic Power Company
Northeast Nuclear Energy Company
Post Office Box 270
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Dear Mr. Mroczka:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M80904)

The Commission has issued the enclosed Amendment No. 144 to Facility Operating License No. DPR-61 for the Haddam Neck Plant, in response to your application dated July 2, 1991.

The amendment will revise Technical Specification (TS) Section 3.7.1.3, "Auxiliary Feedwater Supply" and its associated Bases Section to increase the demineralized water storage tank (DWST) minimum volume from the present 50,000 gallons to a new minimum volume of 70,000 gallons. Approval of this TS provides an interim resolution to the seismic and tornado issue for the auxiliary feedwater supply system. Final resolution will be tied to the construction of a new non-Category 1 condensate storage tank, which will supply normal hotwell condensate makeup so that the existing non-quality assurance, non-seismic condensate lines can be removed from the existing QA DWST.

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Alan B. Wang, Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 144 to DPR-61
2. Safety Evaluation

cc w/enclosures:
See next page

OFC	:PDI-4:LA	:PDI-4:PM	:SPLB:BC	:PDI-4:D	:OGC
NAME	:SNorris	:AWang:cn	:CMcCracken	:JStolz	:GHolahan
DATE	:10/14/91	:10/15/91	:10/21/91	:10/28/91	:10/24/91

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Document Name: AMD 80904

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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. 144
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 July 2, 1991, 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.

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. 144, 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

Alexander W Dromerick for

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: October 28, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 144

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	Insert
3/4 7-4	3/4 7-4
B 3/4 7-2	B 3/4 7-2

PLANT SYSTEMS

AUXILIARY FEEDWATER SUPPLY

LIMITING CONDITION FOR OPERATION

3.7.1.3 The demineralized water storage tank (DWST) shall be OPERABLE with a minimum contained volume of 70,000 gallons of water and the primary water storage tank (PWST) shall be OPERABLE with a minimum contained volume of 80,000 gallons of water.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the DWST inoperable, restore the DWST to OPERABLE status within 4 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With the PWST inoperable, within 4 hours:

1. Restore the PWST to OPERABLE status, or

2. Provide an equivalent supply from an alternate source, or

3. Be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.3.1 The DWST and PWST shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume is within its limits.

4.7.1.3.2 The Recycle Primary Water Storage Tank (RPWST) shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume is equivalent to the PWST requirements when the RPWST is the alternate water source for the PWST.

AUXILIARY FEEDWATER SUPPLY (Continued)

In addition, the auxiliary feedwater system can be initiated manually. In this case, feedwater is available from the DWST by gravity feed to the auxiliary feedwater pump. The specified 70,000 gallons of water in the DWST allows for a sufficient operator action time to isolate a source of DWST leakage to ensure an adequate water supply for decay heat removal for a period of at least 2 hours and also protect the auxiliary feedwater pumps from cavitation. Within this period, decay heat removal demands are reduced to approximately 470 gpm. Makeup water is available during this period from the PWST which contains a minimum volume of 80,000 gallons. The PWST transfer pumps can transfer 200 gpm from the PWST to the DWST. An alternate supply can be provided from the 100,000 gallons Recycled Primary Water Storage Tank.

3/4.7.1.4 SPECIFIC ACTIVITY

The limitations on Secondary Coolant System specific activity ensure that the resultant offsite radiation dose will be limited to a small fraction of 10 CFR Part 100 dose guideline values in the event of a steam line rupture. This dose also includes the effects of a coincident 0.4 gpm reactor-to-secondary tube leak in the steam generator of the affected steam line. These values are consistent with the assumptions used in the safety analyses.

3/4.7.1.5 MAIN STEAM LINE TRIP VALVES

The OPERABILITY of the main steam line trip valves ensures that no more than one steam generator will blowdown in the event of a steam line rupture. This restriction is required to: (1) minimize the positive reactivity effects of the Reactor Coolant System cooldown associated with the blowdown, and (2) limit the pressure rise within containment in the event the steam line rupture occurs within containment. The OPERABILITY of the main steam line trip valves within the closure times of the Surveillance Requirements are consistent with the assumptions used in the safety analyses.

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on steam generator pressure and temperature ensures that the pressure-induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations of 70°F and 200 psig are based on a steam generator RTNDT of 10°F and are sufficient to prevent brittle fracture. The heatup and cooldown rate of 100°F/hr for the steam generators are specified to ensure that stresses in these vessels are maintained within acceptable design limits.

3/4.7.3 SERVICE WATER SYSTEM

The OPERABILITY of the Service Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analysis. A service water header is comprised of two service water pumps associated with each diesel generator and the