

November 10, 1993

Docket No. 50-443  
Serial No. SEA-93-026

Mr. Ted C. Feigenbaum  
Senior Vice President  
and Chief Nuclear Officer  
North Atlantic Energy Service Corporation  
Post Office Box 300  
Seabrook, New Hampshire 03874

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Dear Mr. Feigenbaum:

SUBJECT: AMENDMENT NO. 26 TO FACILITY OPERATING LICENSE NPF-86: CONDENSATE STORAGE TANK ENCLOSURE SURVEILLANCE FREQUENCY - LICENSE AMENDMENT REQUEST 93-09 (TAC M86502)

The Commission has issued the enclosed Amendment No. 26 to Facility Operating License No. NPF-86 for the Seabrook Station, Unit No. 1, in response to your application dated June 18, 1993.

The amendment revises the Appendix A Technical Specifications (TS) relating to the condensate storage tank (CST). The amendment modifies the Seabrook Station TS to reduce the frequency of surveillances that are required to verify the integrity of the CST enclosure. Specifically, surveillance requirement TS 4.7.1.3 is changed to require verification of CST enclosure integrity at least every 18 months vice every 12 hours.

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

Albert W. De Agazio, Sr. Project Manager  
Project Directorate I-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

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Enclosures:

1. Amendment No. 26 to NPF-86
2. Safety Evaluation

cc w/enclosures:  
See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 10, 1993

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Senior Vice President  
and Chief Nuclear Officer  
North Atlantic Energy Service Corporation  
Post Office Box 300  
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SUBJECT: AMENDMENT NO. 26 TO FACILITY OPERATING LICENSE NPF-86: CONDENSATE  
STORAGE TANK ENCLOSURE SURVEILLANCE FREQUENCY - LICENSE AMENDMENT  
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Sincerely,

A handwritten signature in cursive script, reading "Albert W. De Agazio", is positioned above the typed name.

Albert W. De Agazio, Sr. Project Manager  
Project Directorate I-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 26 to NPF-86
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Ted C. Feigenbaum

Seabrook Station

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

NORTH ATLANTIC ENERGY SERVICE CORPORATION, ET AL\*

DOCKET NO. 50-443

SEABROOK STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 26  
License No. NPF-86

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by North Atlantic Energy Service Corporation, et al. (the licensee), dated June 18, 1993, 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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\*North Atlantic Energy Service Company (NAESCO) is authorized to act as agent for the: North Atlantic Energy Corporation, Canal Electric Company, The Connecticut Light and Power Company, Great Bay Power Corporation, Hudson Light and Power Department, Massachusetts Municipal Wholesale Electric Company, Montaup Electric Company, New England Power Company, New Hampshire Electric Cooperative, Inc., Taunton Municipal Light Plant, The United Illuminating Company, and Vermont Electric Generation and Transmission Cooperative, Inc., and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

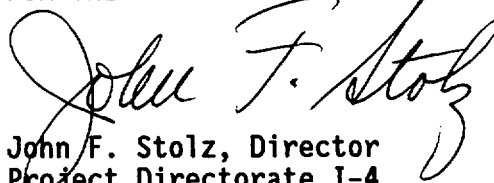
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-86 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 26 , and the Environmental Protection Plan contained in Appendix B are incorporated into Facility License No. NPF-86. NAESCO shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, to be implemented within 60 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: November 10, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 26

FACILITY OPERATING LICENSE NO. NPF-86

DOCKET NO. 50-443

Replace the following pages of Appendix A, Technical Specifications, with the attached pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. Overleaf pages have been provided.\*

Remove

3/4 7-5\*

3/4 7-6

Insert

3/4 7-5\*

3/4 7-6

## PLANT SYSTEMS

### TURBINE CYCLE

#### AUXILIARY FEEDWATER SYSTEM

### SURVEILLANCE REQUIREMENTS

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4.7.1.2.2 Auxiliary feedwater flow paths to each steam generator shall be demonstrated OPERABLE following each COLD SHUTDOWN of greater than 30 days, or after maintenance on an auxiliary feedwater pump that could have an effect upon pump performance, prior to entering MODE 2 by verifying normal flow to each steam generator from:

- a. Each emergency feedwater pump, and
- b. The startup feedwater pump via the main feedwater flow path and via the emergency feedwater header.

## PLANT SYSTEMS

### TURBINE CYCLE

#### CONDENSATE STORAGE TANK

#### LIMITING CONDITION FOR OPERATION

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3.7.1.3 The condensate storage tank (CST) system shall be OPERABLE with

- a. A volume of 212,000 gallons of water contained in the condensate storage tank, and
- b. A concrete CST enclosure that is capable of retaining 212,000 gallons of water.

APPLICABILITY: MODES 1, 2, and 3.

#### ACTION:

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

#### SURVEILLANCE REQUIREMENTS

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- 4.7.1.3a. The CST shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume in the CST is within its limits.
- b. The CST enclosure shall be demonstrated OPERABLE at least once per 18 months by an inspection to verify that CST enclosure integrity is maintained.





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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 26 TO FACILITY OPERATING LICENSE NO. NPF-86  
NORTH ATLANTIC ENERGY SERVICE CORPORATION  
SEABROOK STATION, UNIT NO. 1  
DOCKET NO. 50-443

**1.0 INTRODUCTION**

By letter dated June 18, 1993, the North Atlantic Energy Service Corporation (North Atlantic) proposed changes to the Seabrook Station, Unit 1 Technical Specifications (TSs) to reduce the frequency of surveillance required to verify the integrity of the condensate storage tank (CST) enclosure. The present Surveillance Requirement 4.7.1.3 requires that the integrity of the CST enclosure be verified at least every 12 hours, the same frequency that is required for verifying the CST level. The proposed amendment would reduce the frequency of surveillance of the CST enclosure to at least once every 18 months. This is the same surveillance frequency required by TS 4.6.5.1 for verifying the integrity of the containment enclosure.

**2.0 EVALUATION**

The CST at Seabrook is the safety-related (and only) source of water for the emergency feedwater (EFW) system, therefore, it is required to remain functional under all conditions, including tornadoes. Except for the tank roof, the CST is protected from tornado-generated missiles by a reinforced concrete enclosure that completely encircles the tank. This concrete enclosure is designed to contain the CST contents thereby assuring an adequate source of water for the EFW system in the unlikely event that a tornado-generated missile were to penetrate the top of the CST and cause a tank rupture.

In accordance with TS 4.7.1.3, the CST is verified OPERABLE at least every 12 hours by verifying that the tank contains the minimum required volume and by verifying the integrity of the CST enclosure. The integrity verification is performed each shift by an auxiliary operator (AO). The AO verifies the integrity of the CST enclosure by observing the immediate concrete enclosure around the tank and observing that the seals associated with the enclosure penetrations do not have work ongoing that may cause degradation.

North Atlantic asserts that the maximum 12 hour frequency for performing the integrity check is burdensome to the operating crew in that it diverts an AO for a short time each shift to perform an activity that does not provide any substantial information related to the integrity of the enclosure. North

Atlantic considers that the activity most likely to affect the integrity of the enclosure is maintenance related to the penetration seals. Maintenance activities on the CST enclosure penetration seals would be performed in accordance with the Station work control program and would necessitate entry into the Action Statement for the enclosure being inoperable if the work occurred during MODES 1, 2 or 3. In all cases the work control program would require the verification of the enclosure integrity at the completion of the maintenance.

The proposed revision to TS 4.7.1.3 would change the frequency of the enclosure integrity verification to at least 18 months. The 18-month frequency was selected based on the frequency of the containment drawdown test which is also performed every 18 months. The containment drawdown test verifies the leak-tightness (integrity) of the concrete containment and concrete containment enclosure. The concrete containment enclosure performs a function similar to the CST concrete enclosure, and, therefore, the frequency of testing should be similar.

Under the proposed change, the 18-month CST enclosure and seals inspection will be similar to inspections performed on the containment prior to Type A testing as required by 10 CFR 50 Appendix J, Section V.A. The procedure will involve a general inspection of the accessible surfaces to uncover any evidence of structural or seal degradation which may affect either the structural integrity or leak-tightness. The inspections will be performed by the Station Technical Support organization, the organization that performs similar inspections of the containment and containment enclosure. Because these personnel have the requisite expertise and knowledge to detect potential degradation, the inspections will be more in-depth and superior to that which is now performed by the AO.

The staff does not know of any technical basis for inspecting the concrete enclosure every 12 hours as required by the existing Technical Specifications. It is a passive structure that is only relied upon following a tornado missile that has penetrated the top of the CST and somehow resulted in a tank rupture. The staff agrees with North Atlantic that the condition of the enclosure is not expected to change from day-to-day and that an inspection frequency similar to other concrete structures performing similar functions is more appropriate. This type of inspection would be more thorough and more likely to determine if the enclosure was capable of performing its safety function.

Based on its review, as described above, the staff concludes that the existing Technical Specification for the concrete CST enclosure inspection frequency is unnecessarily restrictive and does not provide much in the way of safety. The brief inspection that is performed every 12 hours is not likely to find any failures other than obvious gross failures that would probably be noticed by plant personnel anyway. Therefore, the staff concludes that the proposed changes to TS 4.7.1.3 are acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Hampshire and Massachusetts State officials were notified of the proposed issuance of the amendment. The State officials had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a surveillance requirement. 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 (58 FR 43928). 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.

Principal Contributor: William T. LeFave

Date: November 10, 1993