June 24, 1997

Mr. Ted C. Feigenbaum
Executive Vice President and
Chief Nuclear Officer
North Atlantic Energy Service Corporation
c/o Mr. Terry L. Harpster
P.O. Box 300
Seabrook, NH 03874

SUBJECT: AMENDMENT NO. 52 TO FACILITY OPERATING LICENSE NPF-86: TECHNICAL SPECIFICATION 6.8.1.6.B CORE OPERATING LIMITS REPORT LICENSE AMENDMENT REQUEST 97-03 (TAC NO. M99033)

Dear Mr. Feigenbaum:

The Commission has issued the enclosed Amendment No. 52 to Facility Operating License No. NPF-86 for the Seabrook Station, Unit No 1, in response to your application dated June 19, 1997.

The amendment modifies an Appendix A Technical Specification. Specifically, the amendment modifies Technical Specification 6.8.1.6.b to include a reference to the NRC Westinghouse Topical Report WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," dated April 1995.

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

Sincerely,
Original signed by
Albert W. DeAgazio, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

DF01

Docket No. 50-443
Serial No. SEA-97-015

Enclosures: 1. Amendment No. 52 to NPF-86
2. Safety Evaluation

cc w/encls: See next page

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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. 52
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 19, 1997, 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, and The United Illuminating Company, 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. 52, 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 before transition into Operational Mode 2 during startup from Refueling Outage 5.

FOR THE NUCLEAR REGULATORY COMMISSION

Patrick D. Milano, Acting Director
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 24, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 52

FACILITY OPERATING LICENSE NO. NPF-86

DOCKET NO. 50-443

Replace the following page of the Appendix A, Technical Specifications, with the attached page as indicated. The revised page is identified by amendment number and contains vertical lines indicating the area of change.

Remove	Insert
6-18C	6-18C

6.8.1.6.b. (Continued)

10. YAEC-1855P, "Seabrook Station Unit 1 Fixed Incore Detector System Analysis," October 1992

    Methodology for Specification:
    3.2.1 - AXIAL FLUX DIFFERENCE
    3.2.2 - Heat Flux Hot Channel Factor
    3.2.3 - Nuclear Enthalpy Rise Hot Channel Factor

11. YAEC-1624P, "Maine Yankee RPS Setpoint Methodology Using Statistical Combination of Uncertainties - Volume 1 - Prevention of Fuel Centerline Melt," March 1988

    Methodology for Specification:
    3.2.1 - AXIAL FLUX DIFFERENCE
    3.2.2 - Heat Flux Hot Channel Factor
    3.2.3 - Nuclear Enthalpy Rise Hot Channel Factor

12. NYN-95048, Letter from T. C. Feigenbaum (NAESCo) to NRC, "License Amendment Request 95-05: Positive Moderator Temperature Coefficient", May 30, 1995

    Methodology for Specification:
    3.1.1.3- Moderator Temperature Coefficient

13. WCAP-12610-P-A, "VANTAGE + Fuel Assembly Reference Core Report", April 1995, (Westinghouse Proprietary)

    Methodology for Specification:
    3.2.2- Heat Flux Hot Channel Factor

6.8.1.6.c. The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, and transient and accident analysis limits) of the safety analysis are met. The CORE OPERATING LIMITS REPORT for each reload cycle, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, to the NRC Document Control Desk with copies to the Regional Administrator and the Resident Inspector.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 52 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 19, 1997, the North Atlantic Energy Service Corporation (the licensee) submitted a license amendment request to the Seabrook Station Technical Specifications (TSs). The requested revision changes the TSs to include an additional reference in TS Administrative Control 6.8.1.6.b, "Core Operating Limits Report." Administrative Control 6.8.1.6.b specifies the NRC-approved methodologies used to determine the parameters specified in the Core Operating Limits Report. Specifically, the proposed change revises TS Administrative Control 6.8.1.6.b to include a reference to an NRC-approved Westinghouse Topical Report, WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," dated April 1995. WCAP-12610-P-A describes the modifications in the Westinghouse Loss of Coolant Accident (LOCA) evaluation models which account for the presence of and the properties of ZIRLO cladding material.

The Seabrook Station is presently in cold shutdown (MODE 5) ascending, at the completion of Refueling Outage 5, with the current best estimate for achieving criticality (MODE 2) about June 24, 1997.

In order to prevent delay in startup of Seabrook Station, the licensee requested that this amendment be reviewed on an emergency basis pursuant to 10 CFR 50.91(a)(5). The circumstances supporting North Atlantic's request for an emergency review are discussed below.

2.0 EVALUATION

The licensee submitted license amendment request (LAR)93-18 on November 23, 1993, and received NRC approval in License Amendment 33 on November 23, 1994. Amendment 33 approved a revision to the TSs to permit operation of Seabrook Station with an expanded axial flux difference band (wide-band operation) Additionally, TS 6.8.1.6.b was revised to include an updated list of analytical methods used to determine the core operating limits that were previously reviewed and approved by the NRC. At that time, the need to include a reference to WCAP-12610-P-A in this TS was not recognized. The proposed change to TS Administrative Control 6.8.1.6.b clarifies the list of methodologies that must be used to determine core operating limits. The addition of the methodology will ensure that the licensee is required to determine the

values for cycle-specific parameters such that all applicable limits (e.g., fuel thermal and mechanical limits, core thermal/hydraulic limits, ECCS limits, shutdown margin, and transient and accident analyses limits) are met. In addition, the methodology cited appropriately models the performance of the Seabrook plant. Therefore, the NRC staff finds that proposed amendment is acceptable.

3.0 EMERGENCY CIRCUMSTANCES

On June 18, 1997, the NRC staff identified the omission of a reference to a previously NRC-approved Topical Report, WCAP-12610-P-A, in Section 6.8.1.6.b of the Seabrook Station TSs. Core operating limits may only be determined using the NRC-approved methodologies listed in Section 6.8.1.6.b. Thus, the addition of the methodology to be used for ZIRLO-clad fuel is a prerequisite for the restart of the Seabrook Station. The NRC notified the licensee of this omission of the above-referenced report on June 18, 1997, and requested that the licensee specifically reference WCAP-12610-P-A in the TSs as a methodology used to determine the core operating limits. Upon notification by the NRC, the licensee responded to the NRC request and submitted an application for a license amendment dated June 19, 1997. In its amendment request, the licensee requested that the application for an amendment be reviewed on an emergency basis. The licensee provided justification that an emergency existed by stating: "The review of this amendment request as an emergency situation is justified considering the importance of resuming power operation at Seabrook Station expeditiously. As a result of the June 18, 1997 conference call, this amendment request was expeditiously prepared to be responsive to the NRC staff."

The NRC staff has determined that the licensee has not abused the emergency provision of 10 CFR 50.91 in that the licensee's application was timely, i.e., one day after notification by the NRC, and the licensee was not aware previously that the TS change was required. The staff finds that an emergency situation exists in that failure to act in a timely way would result in prevention of resumption of operation. Therefore, the amendment is being processed on an emergency basis pursuant to 10 CFR 50.91(a)(5).

4.0 FINAL NO SIGNIFICANT CONSIDERATION DETERMINATION

The Commission has made a final determination that the amendment involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92(c), this means that the operation of the facility in accordance with the proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The Commission has evaluated the proposed changes against the above standards as required by 10 CFR 50.91(a) and has concluded that:

A. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated

(10 CFR 50.92(c)(1)) because the addition of the reference document assures that the methodologies used to determine core operating limits will be those previously approved by the NRC, and that all safety limits determined will comply with regulatory requirements. The proposed amendment will not result in a change to any of the process variables that might initiate an accident or affect the radiological release for an accident, and the amendment does not involve any physical changes to facility structures, systems, or components.

B. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated (10 CFR 50.92(c)(2)) because the addition of the reference allowing the use of methodologies previously approved by the NRC does not introduce any new operational modes or accident initiators. Therefore, the possibility of a new or different kind of accident from any accident previously evaluated is not created by this change.

C. The change does not involve a significant reduction in a margin of safety (10 CFR 50.92(c)(3)) because it assures that each cycle reload core design will be evaluated using NRC-approved reload design methods. This will ensure that the values for cycle-specific parameters are determined such that all applicable limits (e.g., fuel thermal and mechanical limits, core thermal/hydraulic limits, ECCS limits, shutdown margin, and transient and accident analyses limits) are met.

Based on the above considerations, the staff concludes that the amendment meets the standards set forth in 10 CFR 50.92 for no significant hazards consideration. Therefore, the staff has made a final determination that the proposed amendments involve no significant hazards consideration.

5.0 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 officials were notified on June 23, 1997. The State officials had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) the amendment does not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) increase the possibility of a new or different kind of accident from any previously evaluated or (c) significantly reduce a safety margin and, therefore, 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, (3) such activities will be conducted in compliance with the Commission's regulations, and 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 Contributors: B. Buckley
A. De Agazio

Date: June 24, 1997