

August 24, 1993

Docket No. 50-443
Serial No. SEA-93-019

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

Dear Mr. Feigenbaum:

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SUBJECT: AMENDMENT NO. 24 TO FACILITY OPERATING LICENSE NPF-86:
FIGURE 2.1-1, REACTOR CORE SAFETY LIMIT (TAC M86059)

The Commission has issued the enclosed Amendment No. 24 to Facility Operating License No. NPF-86 for the Seabrook Station, Unit No. 1, in response to your application dated April 8, 1993.

The amendment revises an Appendix A Technical Specification (TS) figure of reactor core safety limit curves. Specifically, TS Figure 2.1-1, Reactor Core Safety Limit - Four Loops in Operation, is revised to correct non-conservative curves.

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

Enclosures:

1. Amendment No. 24 to NPF-86
2. Safety Evaluation

cc w/enclosures:
See next page

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*See previous concurrence

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

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Sincerely,

A handwritten signature in cursive script, reading "Albert W. De Agazio", is written over 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

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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. 24
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 April 8, 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.

*North Atlantic Energy Service Corporation (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.

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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. NPF-86 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 24, 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: August 24, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 24

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

2-1*

2-2

Insert

2-1*

2-2

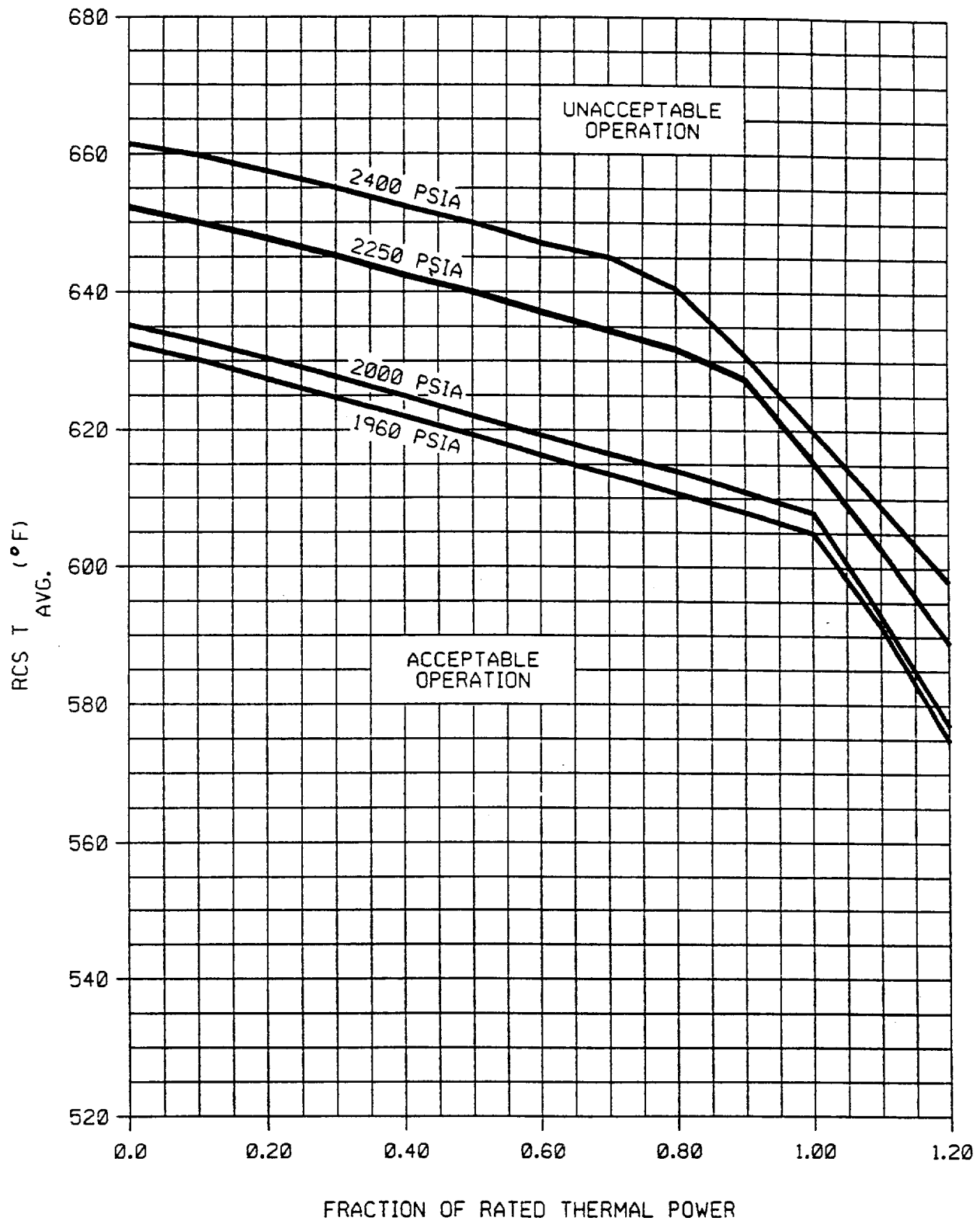


FIGURE 2.1-1

REACTOR CORE SAFETY LIMIT - FOUR LOOPS IN OPERATION

2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.1 SAFETY LIMITS

REACTOR CORE

2.1.1 The combination of THERMAL POWER, pressurizer pressure, and the highest operating loop coolant temperature (T_{avg}) shall not exceed the limits shown in Figure 2.1-1 for four-loop operation.

APPLICABILITY: MODES 1 and 2.

ACTION:

Whenever the point defined by the combination of the highest operating loop average temperature and THERMAL POWER has exceeded the appropriate pressurizer pressure line, be in HOT STANDBY within 1 hour, and comply with the requirements of Specification 6.6.

REACTOR COOLANT SYSTEM PRESSURE

2.1.2 The Reactor Coolant System pressure shall not exceed 2735 psig.

APPLICABILITY: MODES 1, 2, 3, 4, and 5.

ACTION:

MODES 1 and 2:

Whenever the Reactor Coolant System pressure has exceeded 2735 psig, be in HOT STANDBY with the Reactor Coolant System pressure within its limit within 1 hour, and comply with the requirements of Specification 6.6.

MODES 3, 4, and 5:

Whenever the Reactor Coolant System pressure has exceeded 2735 psig, reduce the Reactor Coolant System pressure to within its limit within 5 minutes, and comply with the requirements of Specification 6.6.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 24 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 April 8, 1993, North Atlantic Energy Service Corporation (North Atlantic) submitted an amendment request for a change to the Technical Specifications (TS). The proposed amendment would revise TS Figure 2.1-1, Reactor Core Safety Limit - Four Loops in Operation, to correct non-conservative curves. North Atlantic identified that the curves were non-conservative as a result of a review of the Technical Specification values provided to North Atlantic by Westinghouse. North Atlantic determined, through a comparison of Westinghouse design documents to the actual curves on TS Figure 2.1-1, that the curves in the region of 80% to 110% of rated thermal power (RTP) do not accurately represent the loci of points upon which the curves are based.

2.0 EVALUATION

The curves on TS Figure 2.1-1 show the loci of points of Rated Thermal Power, Reactor Coolant System (RCS) pressure, and average RCS temperature for which the minimum Departure from Nucleate Boiling Ratio (DNBR) is no less than 1.30, or the average enthalpy at the reactor vessel exit is equal to the enthalpy of saturated liquid. Operating the reactor plant within the safety limit ensures that the integrity of the fuel is not challenged.

The revision to the curves will accurately reflect the loci of points upon which the curves are based. The new curves will ensure that if the Reactor Protection System trip functions are exceeded, the evaluations made to verify if a safety limit has been exceeded will be accurate. The proposed change does not alter the design, function, or operation of the plant. The proposed change does not affect any existing accident analyses, and does not introduce the possibility of any accidents or malfunctions not already analyzed.

Since the proposed change provides more conservative values for TS Figure 2.1-1, it does not reduce the margin of safety as defined in the bases of the Technical Specifications and preserves the margin originally established. The revision ensures that the design basis and the safety limits are accurately

reflected in the Technical Specifications and will allow proper verification that a minimum DNBR of not less than 1.30 is achieved.

Based on the above discussion, the NRC staff finds that the licensee's proposed change meets the regulations and is, therefore, 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 requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. 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 exposures. 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 34082). Accordingly, the amendment meets the eligibility criteria for a 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.

6.0 REFERENCES

1. Feigenbaum, Ted. C. "License Amendment Request 93-03: Change to Technical Specification Figure 2.1-1, Reactor Core Safety Limit - Four Loops in Operation," Letter to USNRC from Senior Vice President and Chief Nuclear Officer, North Atlantic Energy Service Corporation, NYN-93056, April 8, 1993.
2. "Seabrook Station Final Safety Analysis Report," Public Service Company of New Hampshire, New Hampshire Yankee Division.
3. "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants, LWR Edition," NUREG-0800, July, 1981.

Principal Contributor:
N. Dudley

Date: August 24, 1993