

North
Atlantic

SEABROOK STATION UNIT 1

**Facility Operating License NPF-86
Docket No. 50-443**

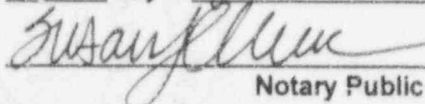
**LICENSE AMENDMENT REQUEST NO. 97-03
TECHNICAL SPECIFICATION 6.8.1.6.b
CORE OPERATING LIMITS REPORT**

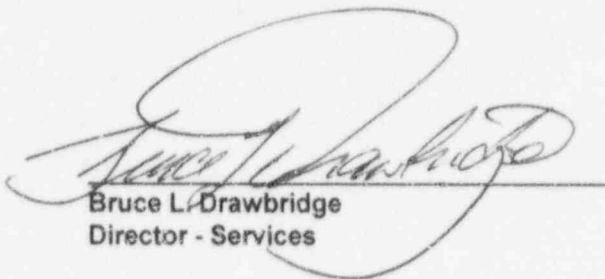
This License Amendment Request is submitted by North Atlantic Energy Service Corporation pursuant to 10 CFR 50.90 and 10 CFR 50.4. The following information is enclosed in support of this License Amendment Request:

- Section I - Introduction and Safety Assessment for Proposed Changes
- Section II - Markup of Proposed Changes
- Section III - Retype of Proposed Changes
- Section IV - Determination of Significant Hazards for Proposed Changes
- Section V - Proposed Schedule for License Amendment Issuance and Effectiveness
- Section VI - Environmental Impact Assessment

Sworn and Subscribed

before me this 19th day of June, 1997


Notary Public


Bruce L. Drawbridge
Director - Services

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P PDR

I. INTRODUCTION AND SAFETY ASSESSMENT OF PROPOSED CHANGES

A. Introduction

License Amendment Request 97-03 proposes to include an additional reference in Technical Specification Administrative Control 6.8.1.6.b, "Core Operating Limits Report." Technical Specification 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 Technical Specification 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.

B. Safety Assessment of Proposed Changes

North Atlantic submitted 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 Technical Specifications to permit operation of Seabrook Station with an expanded axial flux difference band (wide-band operation). Other Technical Specification changes were also made to allow for fuel design enhancements. Additionally, Technical Specification 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 Technical Specification was not recognized.

On June 18, 1997, in a conference call, the NRC Staff requested that Technical Specification Administrative Control 6.8.1.6.b specifically reference WCAP-12610-P-A as a methodology used to determine the core operating limits. This methodology has been previously reviewed and approved by the NRC. As a result, North Atlantic is submitting LAR 97-03 on an emergency basis. The proposed change to Technical Specification Administrative Control 6.8.1.6.b is to ensure completeness in the listing of methodologies referenced to support the core operating limits. The omission of this reference from LAR 93-18 did not in any way adversely affect the analyses supporting Amendment 33. All analyses supporting the core operating limits were performed utilizing NRC approved methodologies. The proposed change is administrative in nature and has no safety significance.

II. MARKUP OF PROPOSED CHANGES

Refer to the attached markup of the proposed changes to the Technical Specifications. The attached markup reflects the currently issued revision of the Technical Specifications listed below. Pending Technical Specifications or Technical Specification changes issued subsequent to this submittal are not reflected in the enclosed markup.

The following Technical Specification is included in the attached markup:

<u>Technical Specification</u>	<u>Title</u>	<u>Page</u>
TS 6.8.1.6.b	Core Operating Limits Report	6-18C

6.8.1.6.b. (Continued)

10. YAE-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. YAE-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

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.

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

III. RETYPE OF PROPOSED CHANGES

Refer to the attached retype of the proposed changes to the Technical Specifications. The attached retype reflects the currently issued version of the Technical Specifications. Pending Technical Specification changes or Technical Specification changes issued subsequent to this submittal are not reflected in the enclosed retype. The enclosed retype should be checked for continuity with Technical Specifications prior to issuance.

ADMINISTRATIVE CONTROLS

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
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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.

IV. DETERMINATION OF SIGNIFICANT HAZARDS FOR PROPOSED CHANGES

License Amendment Request 97-03 proposes to include an additional reference in Technical Specification Administrative Control 6.8.1.6.b, "Core Operating Limits Report." Technical Specification 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 Technical Specification 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.

North Atlantic submitted 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 Technical Specifications to permit operation of Seabrook Station with an expanded axial flux difference band (wide-band operation). Other Technical Specification changes were also made to allow for fuel design enhancements. Additionally, Technical Specification 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 Technical Specification was not recognized.

On June 18, 1997, in a conference call, the NRC Staff requested that Technical Specification Administrative Control 6.8.1.6.b specifically reference WCAP-12610-P-A as a methodology used to determine the core operating limits. This methodology has been previously reviewed and approved by the NRC. The proposed change to Technical Specification Administrative Control 6.8.1.6.b is to ensure completeness in the listing of methodologies referenced to support the core operating limits. The omission of this reference from LAR 93-18 did not in any way adversely affect the analyses supporting Amendment 33. All analyses supporting the core operating limits were performed utilizing NRC approved methodologies. The proposed change is administrative in nature and has no safety significance.

In accordance with 10 CFR 50.92, North Atlantic has concluded that the proposed change does not involve a significant hazards consideration (SHC). The basis for the conclusion that the proposed change does not involve a SHC is as follows:

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

The proposed addition of an NRC approved method, WCAP-12610-P-A, to the list of NRC approved methodologies contained in Technical Specification Administrative Control 6.8.1.6.b is an administrative change having no safety significance. The proposed change to Technical Specification Administrative Control 6.8.1.6.b is to ensure completeness in the listing of methodologies used in the development of the core operating limits. The proposed change in no way involves an increase in the probability or consequences of accidents previously evaluated.

The previous omission of the reference to WCAP-12610-P-A did not in any way adversely affect the analyses conducted in support of the development of core operating limits. All analyses supporting the core operating limits were performed utilizing NRC approved methodologies

2. *The proposed change does not create the possibility of a new or different kind of accident from any previously analyzed.*

The proposed addition of an NRC approved method, WCAP-12610-P-A, to the list of NRC approved methodologies contained in Technical Specification Administrative Control 6.8.1.6.b is an administrative change having no safety significance. The proposed change to Technical Specification Administrative Control 6.8.1.6.b is to ensure completeness in the listing of methodologies used in the development of the core operating limits. The proposed change in no way creates the possibility of a new or different kind of accident from any previously evaluated.

3. *The proposed change does not involve a significant reduction in the margin of safety.*

The proposed addition of an NRC approved method, WCAP-12610-P-A, to the list of NRC approved methodologies contained in Technical Specification Administrative Control 6.8.1.6.b is an administrative change having no safety significance. The proposed change to Technical Specification Administrative Control 6.8.1.6.b is to ensure completeness in the listing of methodologies used in the development of the core operating limits. The proposed change in no way involves a reduction in the margin of safety.

V. **PROPOSED SCHEDULE FOR LICENSE AMENDMENT ISSUANCE AND EFFECTIVENESS**

North Atlantic requests that LAR 97-03 be reviewed on an emergency basis pursuant to 10 CFR 50.91(a)(5) and that a license amendment be issued to support the impending startup from the current refueling outage (i.e., MODE 2) on an emergency basis. North Atlantic is presently in MODE 5 ascending, at the completion of Refueling Outage 5, with the current best estimate for achieving criticality (MODE 2) on June 23, 1997. It should be noted, however, that North Atlantic believes that there are opportunities available to improve on this schedule which may result in MODE 2 being achieved earlier than June 23, 1997. North Atlantic will continue to keep the NRC apprised of schedule changes that may result in MODE 2 being achieved earlier than June 23, 1997.

North Atlantic requests a license amendment having immediate effectiveness and implementation required within 60 days.

VI. ENVIRONMENTAL IMPACT ASSESSMENT

North Atlantic has reviewed the proposed license amendment against the criteria of 10 CFR 51.22 for environmental considerations. The proposed changes do not involve a significant hazards consideration, nor increase the types and amounts of effluent that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, North Atlantic concludes that the proposed change meets the criteria delineated in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirements for an Environmental Impact Statement.