

Packet file

August 16, 1993

Docket No. 50-443
Serial No. SEA-93-010

DISTRIBUTION

Docket File
NRC & Local PDRs
SVarga
JCalvo
SNorris
NDudley
OGC
DHagan
GHill (2)
CGrimes
ACRS (10)
OPA
OC/LFDCB
JRogge
PDI-4 Plant
LLessler
ADeAgazio

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:

SUBJECT: AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE NPF-86: RADIOACTIVE EFFLUENT RELEASE REPORT (TAC M85492)

The Commission has issued the enclosed Amendment No. 22 to Facility Operating License No. NPF-86 for the Seabrook Station, Unit No. 1, in response to your application dated January 13, 1993.

The amendment revises an Appendix A Technical Specification (TS) relating to the reporting of radioactive effluent releases from the facility. Specifically, the report submittal frequency has been changed from semiannually to annually, and the report is to be submitted by May 1 of each year (Technical Specification 6.8.1.4). Two footnotes to Technical Specification 6.8.1.4 were removed. One footnote, applicable only to a multiple-unit station, did not apply to the Seabrook Station; the other footnote, which allowed the dose calculations to be submitted in a supplement to the Radioactive Effluent Release Report 30 days later, is no longer required. In addition, the amendment includes certain changes of an editorial nature to assure consistency with the above-described changes (Technical Specifications 3.3.3.9, 3.3.3.10, 3.11.1.4, 3.12.1, 3.12.2, 6.12, 6.13, and 6.14).

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

9309020114 930816
PDR ADOCK 05000443
P PDR

Enclosures:

- 1. Amendment No. 22 to NPF-86
- 2. Safety Evaluation

NRC FILE CENTER COPY

cc w/enclosures:

See next page

*SEE PREVIOUS CONCURRENCE

OFFICE	LA:PDI-4*	PM:PDI-4*	D:PDI-4*	OGC*	
NAME	for SNorris LL	NDudley:bp	JStolz	CPW	
DATE	7/27/93	7/27/93	7/28/93	7/29/93	1/1

OFFICIAL RECORD COPY
Document Name: G:\DEAGAZIO\85492AMD

DFol 11



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555-0001

August 16, 1993

Docket No. 50-443
Serial No. SEA-93-010

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:

SUBJECT: AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE NPF-86: RADIOACTIVE
EFFLUENT RELEASE REPORT (TAC M85492)

The Commission has issued the enclosed Amendment No. 22 to Facility
Operating License No. NPF-86 for the Seabrook Station, Unit No. 1, in response
to your application dated January 13, 1993.

The amendment revises an Appendix A Technical Specification (TS) relating to
the reporting of radioactive effluent releases from the facility.
Specifically, the report submittal frequency has been changed from
semiannually to annually, and the report is to be submitted by May 1 of each
year (Technical Specification 6.8.1.4). Two footnotes to Technical
Specification 6.8.1.4 were removed. One footnote, applicable only to a
multiple-unit station, did not apply to the Seabrook Station; the other
footnote, which allowed the dose calculations to be submitted in a supplement
to the Radioactive Effluent Release Report 30 days later, is no longer
required. In addition, the amendment includes certain changes of an editorial
nature to assure consistency with the above-described changes (Technical
Specifications 3.3.3.9, 3.3.3.10, 3.11.1.4, 3.12.1, 3.12.2, 6.12, 6.13, and
6.14).

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,

A handwritten signature in cursive script, appearing to read "Albert De Agazio".

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

Enclosures:

1. Amendment No. 22 to NPF-86
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Ted C. Feigenbaum

Seabrook Station

cc:

Thomas Dignan, Esq.
John A. Ritscher, Esq.
Ropes and Gray
One International Place
Boston, Massachusetts 02110-2624

Mr. Peter Brann
Assistant Attorney General
State House, Station #6
Augusta, Maine 04333

Resident Inspector
U.S. Nuclear Regulatory Commission
Seabrook Nuclear Power Station
Post Office Box 1149
Seabrook, New Hampshire 03874

Jane Spector
Federal Energy Regulatory Commission
825 North Capital Street, N.E.
Room 8105
Washington, DC 20426

Mr. T. L. Harpster
North Atlantic Energy Service
Corporation
Post Office Box 300
Seabrook, New Hampshire 03874

Town of Exeter
10 Front Street
Exeter, New Hampshire 03823

Gerald Garfield, Esq.
Day, Berry and Howard
City Place
Hartford, Connecticut 06103-3499

Mr. R. M. Kacich
Northeast Utilities Service Company
Post Office Box 270
Hartford, Connecticut 06141-0270

Mr. George L. Iverson, Director
New Hampshire Office of Emergency
Management
State Office Park South
107 Pleasant Street
Concord, New Hampshire 03301

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

Office of the Attorney General
One Ashburton Place
20th Floor
Boston, Massachusetts 02108

Board of Selectmen
Town of Amesbury
Town Hall
Amesbury, Massachusetts 01913

Mr. Jack Dolan
Federal Emergency Management Agency
Region I
J.W. McCormack Post Office &
Courthouse Building, Room 442
Boston, Massachusetts 02109

Mr. David Rodham, Director
Massachusetts Civil Defense Agency
400 Worcester Road
Post Office Box 1496
Framingham, Massachusetts 01701-0317
ATTN: James Muckerheide

John P. Arnold, Attorney General
G. Dana Bisbee, Associate Attorney
General
Attorney General's Office
25 Capitol Street
Concord, New Hampshire 03301

Mr. Robert Sweeney
Bethesda Licensing Office
Suite 610
3 Metro Center
Bethesda, Maryland 20814



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. 22
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 January 13, 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, EUA 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.

9309020118 930816
PDR ADOCK 05000443
P PDR

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. 22, 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 16, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 22

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.

<u>Remove</u>	<u>Insert</u>
xiii*	xiii*
xiv	xiv
3/4 3-55	3/4 3-55
3/4 3-56*	3/4 3-56*
3/4 3-59*	3/4 3-59*
3/4 3-60	3/4 3-60
3/4 11-3*	3/4 11-3*
3/4 11-4	3/4 11-4
3/4 12-1*	3/4 12-1*
3/4 12-2	3/4 12-2
3/4 12-3	3/4 12-3
3/4 12-4*	3/4 12-4*
6-17	6-17
6-18	6-18
6-21	6-21
6-22	6-22
6-23	6-23

INDEX

5.0 DESIGN FEATURES

<u>SECTION</u>	<u>PAGE</u>
<u>5.3 REACTOR CORE</u>	
5.3.1 FUEL ASSEMBLIES.....	5-9
5.3.2 CONTROL ROD ASSEMBLIES.....	5-9
<u>5.4 REACTOR COOLANT SYSTEM</u>	
5.4.1 DESIGN PRESSURE AND TEMPERATURE.....	5-9
5.4.2 VOLUME.....	5-9
<u>5.5 METEOROLOGICAL TOWER LOCATION</u>	5-9
<u>5.6 FUEL STORAGE</u>	
5.6.1 CRITICALITY.....	5-10
5.6.2 DRAINAGE.....	5-10
5.6.3 CAPACITY.....	5-10
<u>5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT</u>	5-10
TABLE 5.7-1 COMPONENT CYCLIC OR TRANSIENT LIMITS.....	5-11

6.0 ADMINISTRATIVE CONTROLS

<u>6.1 RESPONSIBILITY</u>	6-1
<u>6.2 ORGANIZATION</u>	6-1
6.2.1 OFFSITE AND ONSITE ORGANIZATIONS.....	6-1
6.2.2 STATION STAFF.....	6-2
FIGURE 6.2-1 (This figure number is not used).....	6-3
FIGURE 6.2-2 (This figure number is not used).....	6-3
TABLE 6.2-1 MINIMUM SHIFT CREW COMPOSITION.....	6-4
<u>6.2.3 INDEPENDENT SAFETY ENGINEERING GROUP (ISEG)</u>	
Function.....	6-5
Composition.....	6-5
Responsibilities.....	6-5
Records.....	6-5
6.2.4 SHIFT TECHNICAL ADVISOR.....	6-5
<u>6.3 TRAINING</u>	6-5

INDEX

6.0 ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>
<u>6.4 REVIEW AND AUDIT</u>	6-6
6.4.1 STATION OPERATION REVIEW COMMITTEE (SORC)	
Function	6-6
Composition	6-6
Alternates	6-6
Meeting Frequency	6-6
Quorum	6-6
Responsibilities	6-6
Records	6-8
6.4.2 NUCLEAR SAFETY AUDIT REVIEW COMMITTEE (NSARC)	
Function	6-8
Composition	6-8
Alternates	6-8
Consultants	6-8
Meeting Frequency	6-9
Quorum	6-9
Review	6-9
Audits	6-9
Records	6-11
<u>6.5 REPORTABLE EVENT ACTION</u>	6-11
<u>6.6 SAFETY LIMIT VIOLATION</u>	6-11
<u>6.7 PROCEDURES AND PROGRAMS</u>	6-12
<u>6.8 REPORTING REQUIREMENTS</u>	
6.8.1 ROUTINE REPORTS	6-14
Startup Report	6-14
Annual Reports	6-15
Annual Radiological Environmental Operating Report	6-15
Annual Radioactive Effluent Release Report	6-17
Monthly Operating Reports	6-18
CORE OPERATING LIMITS REPORT	6-18
6.8.2 SPECIAL REPORTS	6-19
<u>6.9 RECORD RETENTION</u>	6-19
<u>6.10 RADIATION PROTECTION PROGRAM</u>	6-20

INSTRUMENTATION

MONITORING INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The Alarm/Trip Setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: At all times.

ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel inoperable.
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, explain in the next Annual Radioactive Effluent Release Report pursuant to Specification 6.8.1.4 why this inoperability was not corrected in a timely manner.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, and CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-5.

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release		
a. Liquid Radwaste Test Tank Discharge	1	29
b. Steam Generator Blowdown Flash Tank Drain	1*	30
c. Turbine Building Sumps Effluent Line	1	30
2. Flow Rate Measurement Devices		
a. Liquid Radwaste Test Tank Discharge	1	31
b. Steam Generator Blowdown Flash Tank Drain	1*	31
c. Circulating Water Discharge	1**	N. A.
3. Radioactivity Monitors Providing Alarm but Not Termination of Release		
a. Primary Component Cooling Water System (In lieu of service water monitors)	1	32
4. Rate of Change Monitor		
a. Primary Component Cooling Water System Head Tank (In lieu of service water monitors)	1	33

*Only applicable when steam generator blowdown is directed to the discharge transition structure.

**Pump performance curves generated in place should be used to estimate flow.

TABLE 4.3-5 (Continued)

TABLE NOTATIONS

- (1) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if the instrument indicates measured levels above the normal or surveillance test Alarm/Trip Setpoint.
- (2) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
- (3) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.
- (4) CHANNEL CHECK shall consist of verifying indication of tank level during periods of release. CHANNEL CHECK shall be made at least once per 24 hours.

INSTRUMENTATION

MONITORING INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.10 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specifications 3.11.2.1 and 3.11.2.5 are not exceeded. The Alarm/Trip Setpoints of these channels meeting Specification 3.11.2.1 shall be determined and adjusted in accordance with the methodology and parameters in the ODCM.

APPLICABILITY: As shown in Table 3.3-13.

ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel inoperable.
- b. With the number of OPERABLE radioactive gaseous effluent monitoring instrumentation channels less than the Minimum Channels OPERABLE, take the ACTION shown in Table 3.3-13. Restore the inoperable instrumentation to OPERABLE status within 30 days or, if unsuccessful, explain in the next Annual Radioactive Effluent Release Report pursuant to Specification 6.8.1.4 why this inoperability was not corrected in a timely manner.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.10 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-6.

RADIOACTIVE EFFLUENTS

LIQUID EFFLUENTS

LIQUID RADWASTE TREATMENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.11.1.3 The Liquid Radwaste Treatment System shall be OPERABLE and appropriate portions of the system shall be used to reduce releases of radioactivity when the projected doses due to the liquid effluent, from each unit, to UNRESTRICTED AREAS (see Figure 5.1-3) would exceed 0.06 mrem to the whole body or 0.2 mrem to any organ in a 31-day period.

APPLICABILITY: At all times.

ACTION:

- a. With radioactive liquid waste being discharged without treatment and in excess of the above limits and any portion of the Liquid Radwaste Treatment System which could reduce the radioactive liquid waste discharged not in operation, prepare and submit to the Commission within 30 days, pursuant to Specification 6.8.2, a Special Report that includes the following information:
 1. Explanation of why liquid radwaste was being discharged without treatment, identification of any inoperable equipment or subsystems, and the reason for the inoperability,
 2. Action(s) taken to restore the inoperable equipment to OPERABLE status, and
 3. Summary description of action(s) taken to prevent a recurrence.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.3.1 Doses due to liquid releases from each unit to UNRESTRICTED AREAS shall be projected at least once per 31 days in accordance with the methodology and parameters in the ODCM when Liquid Radwaste Treatment Systems are not being fully utilized.

4.11.1.3.2 The installed Liquid Radwaste Treatment System shall be considered OPERABLE by meeting Specifications 3.11.1.1 and 3.11.1.2.

RADIOACTIVE EFFLUENTS

LIQUID EFFLUENTS

LIQUID HOLDUP TANKS*

LIMITING CONDITION FOR OPERATION

3.11.1.4 The quantity of radioactive material contained in each temporary unprotected outdoor tank shall be limited to less than or equal to 10 Curies, excluding tritium and dissolved or entrained noble gases.

APPLICABILITY: At all times.

ACTION:

- a. With the quantity of radioactive material in any temporary unprotected outdoor tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Annual Radioactive Effluent Release Report, pursuant to Specification 6.8.1.4.
- b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.1.4 The quantity of radioactive material contained in each temporary unprotected outdoor tank shall be determined to be within the above limit by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

*Tanks included in this specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflow and surrounding area drains connected to the Liquid Radwaste Treatment System.

3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.1 MONITORING PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.1 The Radiological Environmental Monitoring Program (REMP) shall be conducted as specified in the ODCM.

APPLICABILITY: At all times.

ACTION:

- a. With the Radiological Environmental Monitoring Program not being conducted as specified, prepare and submit to the Commission, in the Annual Radiological Environmental Operating Report required by Specification 6.8.1.3, a description of the reasons for not conducting the program as required and the plans for preventing a recurrence.
- b. With the level of radioactivity as the result of plant effluents in an environmental sampling medium at a specified location exceeding the reporting levels of the REMP when averaged over any calendar quarter, prepare and submit to the Commission within 30 days from receipt of the laboratory analyses, pursuant to Specification 6.8.2, a Special Report that identifies the cause(s) for exceeding the limit(s) and defines the corrective actions to be taken to reduce radioactive effluents so that the potential annual dose* to a MEMBER OF THE PUBLIC is less than the calendar year limits of Specifications 3.11.1.2, 3.11.2.2, or 3.11.2.3. When more than one of the radionuclides in the REMP are detected in the sampling medium, this report shall be submitted if:

$$\frac{\text{concentration (1)}}{\text{reporting level (1)}} + \frac{\text{concentration (2)}}{\text{reporting level (2)}} + \dots \geq 1.0$$

When radionuclides other than those listed in the REMP are detected and are the result of plant effluents, this report shall be submitted if the potential annual dose* to a MEMBER OF THE PUBLIC from all radionuclides is equal to or greater than the calendar year limits of Specification 3.11.1.2, 3.11.2.2, or 3.11.2.3. This report is not required if the measured level of radioactivity was not the result of plant effluents; however, in such an event, the condition shall be reported and described in the Annual Radiological Environmental Operating Report required by Specification 6.8.1.3.

*The methodology and parameters used to estimate the potential annual dose to a MEMBER OF THE PUBLIC shall be indicated in this report.

RADIOLOGICAL ENVIRONMENTAL MONITORING

MONITORING PROGRAM

LIMITING CONDITION FOR OPERATION

3.12.1 (Continued)

ACTION:

- c. With milk or fresh leafy vegetable samples unavailable from one or more of the sample locations required by the Radiological Environmental Monitoring Program (REMP), identify specific locations for obtaining replacement samples and add them within 30 days to the REMP given in the ODCM. The specific locations from which samples were unavailable may then be deleted from the monitoring program. Pursuant to Specification 6.13, submit in the next Annual Radioactive Effluent Release Report documentation for a change in the ODCM including a revised figure(s) and table for the ODCM reflecting the new location(s) with supporting information identifying the cause of the unavailability of samples and justifying the selection of the new location(s) for obtaining samples.
- d. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.12.1 The radiological environmental monitoring samples shall be collected pursuant to the REMP from the specific locations given in the table and figure(s) in the ODCM, and shall be analyzed pursuant to the requirements of and the detection capabilities required by the REMP.

RADIOLOGICAL ENVIRONMENTAL MONITORING

3/4.12.2 LAND USE CENSUS

LIMITING CONDITION FOR OPERATION

3.12.2 A Land Use Census shall be conducted and shall identify within a distance of 8 km (5 miles) the location in each of the 16 meteorological sectors of the nearest milk animal, the nearest residence, and the nearest garden* of greater than 50 m² (500 ft²) producing broad leaf vegetation.

APPLICABILITY: At all times.

ACTION

- a. With a Land Use Census identifying a location(s) that yields a calculated dose or dose commitment greater than the values currently being calculated in Specification 4.11.2.3, pursuant to Specification 6.8.1.4, identify the new location(s) in the next Annual Radioactive Effluent Release Report.
- b. With a Land Use Census identifying a location(s) that yields a calculated dose or dose commitment (via the same exposure pathway) 20% greater than at a location from which samples are currently being obtained in accordance with Specification 3.12.1, add the new location(s) within 30 days to the Radiological Environmental Monitoring Program given in the ODCM, if permission from the owner to collect samples can be obtained and sufficient sample volume is available. The sampling location(s), excluding the control station location, having the lowest calculated dose or dose commitment(s), via the same exposure pathway, may be deleted from this monitoring program after October 31 of the year in which this Land Use Census was conducted. Pursuant to Specification 6.13, submit in the next Annual Radioactive Effluent Release Report documentation for a change in the ODCM including a revised figure(s) and table(s) for the ODCM reflecting the new location(s) with information supporting the change in sampling locations.
- c. The provisions of Specification 3.0.3 are not applicable.

*Broad leaf vegetation sampling of at least three different kinds of vegetation may be performed at the SITE BOUNDARY in each of two different direction sectors with the highest predicted relative deposition values (D/Qs) in lieu of the garden census. Specifications for broad leaf vegetation sampling in the REMP, shall be followed, including analysis of control samples.

RADIOLOGICAL ENVIRONMENTAL MONITORING

LAND USE CENSUS

SURVEILLANCE REQUIREMENTS

4.12.2 The Land Use Census shall be conducted during the growing season at least once per 12 months using a method such as by a door-to-door survey, aerial survey, or by consulting local agriculture authorities, as described in the ODCM. The results of the Land Use Census shall be included in the Annual Radiological Environmental Operating Report pursuant to Specification 6.8.1.3.

ADMINISTRATIVE CONTROLS

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

6.8.1.4 A routine Annual Radioactive Effluent Release Report covering the operation of the station during the previous calendar year of operation shall be submitted by May 1 of each year.

The Annual Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the station as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof. For solid wastes, the format for Table 3 in Appendix B shall be supplemented with three additional categories: class of solid wastes (as defined by 10 CFR Part 61), type of container (e.g., LSA, Type A, Type B, Large Quantity) and SOLIDIFICATION agent or absorbent (e.g., cement).

The Annual Radioactive Effluent Release Report shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability.* This same report shall include an assessment of the radiation doses due to the radioactive liquid and gaseous effluents released from the unit or station during the previous calendar year. This same report shall also include an assessment of the radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the SITE BOUNDARY (Figure 5.1-3) during the report period. All assumptions used in making these assessments, i.e., specific activity, exposure time, and location, shall be included in these reports. The meteorological conditions concurrent with the time of release of radioactive materials in gaseous effluents, as determined by sampling frequency and measurement, shall be used for determining the gaseous pathway doses. The assessment of radiation doses shall be performed in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

The Annual Radioactive Effluent Release Report shall also include an assessment of radiation doses to the likely most exposed MEMBER OF THE PUBLIC from reactor releases and other nearby uranium fuel cycle sources, including doses from primary effluent pathways and direct radiation, for the previous calendar year

*In lieu of submission with the Annual Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data on site in a file that shall be provided to the NRC upon request.

ADMINISTRATIVE CONTROLS

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

6.8.1.4 (Continued)

to show conformance with 40 CFR Part 190, "Environmental Radiation Protection Standards for Nuclear Power Operation." Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in Regulatory Guide 1.109, Rev. 1, October 1977.

The Annual Radioactive Effluent Release Report shall include a list and description of unplanned releases from the site to UNRESTRICTED AREAS of radioactive materials in gaseous and liquid effluents made during the reporting period.

The Annual Radioactive Effluent Release Report shall include any changes made during the reporting period to the PROCESS CONTROL PROGRAM and the ODCM, pursuant to Specifications 6.12 and 6.13, respectively, as well as any major change to Liquid, Gaseous, or Solid Radwaste Treatment Systems pursuant to Specification 6.14. It shall also include a listing of new locations for dose calculations and/or environmental monitoring identified by the Land Use Census pursuant to Specification 3.12.2.

The Annual Radioactive Effluent Release Report shall also include the following: an explanation as to why the inoperability of liquid or gaseous effluent monitoring instrumentation was not corrected within the time specified in Specification 3.3.3.9 or 3.3.3.10, respectively; and description of the events leading to liquid holdup tanks or gas storage tanks exceeding the limits of Specification 3.11.1.4 or 3.11.2.6, respectively.

MONTHLY OPERATING REPORTS

6.8.1.5 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attn: Document Control Desk, with a copy to the NRC Regional Administrator, no later than the 15th of each month following the calendar month covered by the report.

CORE OPERATING LIMITS REPORT

6.8.1.6.a Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT prior to each reload cycle, or prior to any remaining portion of a reload cycle, for the following:

1. SHUTDOWN MARGIN limit for MODES 1, 2, 3, and 4 for Specification 3.1.1.1,
2. SHUTDOWN MARGIN limit for MODE 5 for Specification 3.1.1.2,
3. Moderator Temperature Coefficient BOL and EOL limits, and 300 ppm surveillance limit for Specification 3.1.1.3,

ADMINISTRATIVE CONTROLS

HIGH RADIATION AREA

6.11.1 (Continued)

radiation areas. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device that continuously indicates the radiation dose rate in the area; or
- b. A radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them; or
- c. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the Radiation Work Permit.

6.11.2 In addition to the requirements of Specification 6.11.1, areas accessible to personnel with radiation levels greater than 1000 mR/h at 45 cm (18 in.) from the radiation source or from any surface that the radiation penetrates shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Shift Superintendent on duty and/or health physics supervision. Doors shall remain locked except during periods of access by personnel under an approved RWP that shall specify the dose rate levels in the immediate work areas and the maximum allowable stay time for individuals in that area. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

For individual high radiation areas accessible to personnel with radiation levels of greater than 1000 mR/h that are located within large areas, such as PWR containment, where no enclosure exists for purposes of locking, and where no enclosure can be reasonably constructed around the individual area, that individual area shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device.

6.12 PROCESS CONTROL PROGRAM (PCP)

6.12.1 The PCP shall be approved by the Commission prior to implementation.

6.12.2 Licensee-initiated changes to the PCP:

- a. Shall be submitted to the Commission in the Annual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

ADMINISTRATIVE CONTROLS

PROCESS CONTROL PROGRAM (PCP)

6.12.2 (Continued)

- 1) Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information;
- 2) A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and
- 3) Documentation of the fact that the change has been reviewed and found acceptable by the SORC.

b. Shall become effective upon review and acceptance by the SORC.

6.13 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.13.1 The ODCM shall be approved by the Commission prior to implementation.

6.13.2 Licensee-initiated changes to the ODCM:

- a. Changes to Part A shall be submitted to and approved by the NRC staff prior to implementation.
- b. Changes to Part B shall be submitted to the Commission in the Annual Radioactive Effluent Release Report for the period in which the change(s) was made effective. This submittal shall contain:
 - 1) Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered, dated and containing the revision number, together with appropriate analyses or evaluations justifying the change(s);
 - 2) A determination that the change will not reduce the accuracy or reliability of dose calculations or Setpoint determinations; and
 - 3) Documentation of the fact that the change has been reviewed and found acceptable by the SORC.
- c. Changes to Part B shall become effective upon review and acceptance by the SORC.

ADMINISTRATIVE CONTROLS

6.14 MAJOR CHANGES TO LIQUID, GASEOUS, AND SOLID RADWASTE TREATMENT SYSTEMS*

6.14.1 Licensee-initiated major changes to the Radwaste Treatment Systems (liquid, gaseous, and solid):

- a. Shall be reported to the Commission in the Annual Radioactive Effluent Release Report for the period in which the evaluation was reviewed by the SORC. The discussion of each change shall contain:
 - 1) A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59;
 - 2) Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;
 - 3) A detailed description of the equipment, components, and processes involved and the interfaces with other plant systems;
 - 4) An evaluation of the change, which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the License application and amendments thereto;
 - 5) An evaluation of the change, which shows the expected maximum exposures to a MEMBER OF THE PUBLIC in the UNRESTRICTED AREA and to the general population that differ from those previously estimated in the License application and amendments thereto;
 - 6) A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the change is to be made;
 - 7) An estimate of the exposure to plant operating personnel as a result of the change; and
 - 8) Documentation of the fact that the change was reviewed and found acceptable by the SORC.
- b. Shall become effective upon review and acceptance by the SORC.

*Licensees may choose to submit the information called for in this Specification as part of the annual FSAR update.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 22 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 January 13, 1993, North Atlantic Energy Service Corporation (North Atlantic) submitted a request for changes to the Technical Specifications (TS). The proposed amendment would change TS 6.8.1.4, "Semiannual Radioactive Effluent Release Report," to extend the Radioactive Effluent Release Report submittal frequency from semiannual to annual. The requested changes are in accordance with the change in Title 10, Code of Federal Regulations, Section 50.36a, "Technical specifications on effluents from nuclear power reactors," effective October 1, 1992.

Also, the amendment would make editorial revisions to the Technical Specifications Index and TS 3.3.3.9, 3.3.3.10, 3.11.1.4, 3.12.1, 3.12.2, 6.12, 6.13, and 6.14 by changing references to the Radioactive Effluent Release Report from "Semiannual" to "Annual." In addition, the amendment would eliminate footnotes in TS 6.8.1.4 concerning a multiple-unit station and submittal of dose calculations 30 days after issuing the Radioactive Effluent Release Report.

2.0 EVALUATION

As indicated above, 10 CFR 50.36a was changed to require that a report to the Commission specifying the quantity of each of the principal radionuclides released to unrestricted areas during the previous 12 months should be prepared and submitted. The new regulation also requires that the time interval between submissions of the reports must be no longer than 12 months. Previously, 10 CFR 50.36a required these reports to be submitted semiannually and within 60 days after January 1 and July 1 of each year.

The most recent report was submitted on March 1, 1993, under the old Technical Specifications, and covered the period from July 1, 1992 through December 31, 1992. The licensee chose June 30, 1994, as the date the next report will be required. The NRC staff determined the submittal date of June 30 was unacceptable. The licensee changed the requested submittal date to May 1, under the new TS, which is acceptable to the staff. The period covered by the next report will be January 1, 1993 through December 31, 1993. Since the requested Technical Specification changes are consistent with the new regulation and since the submittals of the required reports will provide continuity in the periods covered, the staff finds that the licensee's proposed changes to TS 6.8.1.4 meet the regulations and are, therefore, acceptable.

Changing applicable references to the Radioactive Effluent Release Report from "Semiannual" to "Annual" in the Technical Specifications Index and TS 3.3.3.9, 3.3.3.10, 3.11.1.4, 3.12.1, 3.12.2, 6.12, 6.13, and 6.14 provides consistency. A footnote in TS 6.8.1.4 concerning a multiple-unit station is not applicable to Seabrook Station, Unit 1. A second footnote in TS 6.8.1.4, which allowed the dose calculations to be submitted in a supplement to the Radioactive Effluent Release Report 30 days later, is no longer required. The elimination of the footnotes provides assurance that TS 6.8.1.4 reflects current conditions. The staff finds the proposed revisions are administrative in nature and are, 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 involves changes in requirements with respect to administrative procedures or requirements. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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 this 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 92-15: Proposed Revision to the Submittal Frequency of the Radioactive Effluent Release Report," Letter to USNRC from Senior Vice President and Chief Nuclear Officer, North Atlantic Energy Service Corporation, NYN-93007, January 13, 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 16, 1993