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

AUG 2 2 1986

Cmgil
any comments since you are looking at Sec 13? Em. Plans
WJ

MEMORANDUM FOR: Themis P. Speis, Director, DSRO
Charles E. Rossi, AD/PWR-A
Robert M. Bernero, Director
Division of BWR Licensing
Frank J. Miraglia, Director,
Division of PWR Licensing-B
Edward S. Christenbury, Director & Chief
Counsel, OGC
Edward L. Jordan, Director DEPER, IE
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Robert F. Burnett, Director, DS, NMSS
William Kane, Director
Division of Reactor Projects, Region I
G. Wayne Kerr, Director, SP
Richard E. Cunningham, Director
Division of Fuel Cycle & Material
Safety, NMSS

FROM: Thomas M. Novak, Acting Director
PWR Project Directorate #5
Division of PWR Licensing-A

SUBJECT: FINAL DRAFT SEABROOK STATION UNIT 1
LOW POWER LICENSE

A copy of the Final Draft of the Low Power License for the Seabrook Station, Unit 1 with attachments is provided as an enclosure. This draft license has been modified to reflect all comments received from your staff to date. A draft of Attachment 1 to the license is requested from Region 1.

Please provide comments and concurrence to the Seabrook project manager, Victor Nerses, (Extension [illegible] Phillips) by August [illegible], 1986.

for George Lear
Thomas M. Novak, Acting Director
Division of PWR Licensing-A

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

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, ET AL.*

DOCKET NO. 50-443

SEABROOK STATION, UNIT NO. 1

FACILITY OPERATING LICENSE

License No. NPF-56

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for license filed by the Public Service Company of New Hampshire (PSNH), as agent and representative of the utilities listed below (and hereafter the utilities listed below including PSNH collectively referred to as licensees) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;

   B. Construction of the Seabrook Station, Unit No. 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-135 and the application, as amended, the provisions of the Act, and the regulations of the Commission;

   C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission, (except as exempted from compliance in Section 2.D below);

   D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 set forth in 10 CFR Chapter I, (except as exempted from compliance in Section 2.D below):

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*Public Service Company of New Hampshire is authorized to act as agent for the: Bangor Hydro-Electric Company, Canal Electric Company, Central Maine Power Company, Central Vermont Public Service Corporation, Connecticut Light and Power Company, Fitchburg Gas & Light Company, Hudson Light & Power Company, Maine Public Service Corporation, Massachusetts Municipal Wholesale Electric Company, Montaup Electric Company, New England Power Company, New Hampshire Electric Cooperative, Inc., Taunton Municipal Lighting 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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E. PSNH is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

F. The licensees have satisfied the applicable provisions of 10 CFR 140 "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations;

G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. NPF-56, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR 51 of the Commission's regulations and all applicable requirements have been satisfied; and

I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR 30, 40 and 70.

2. Based on the foregoing findings regarding this facility, Facility Operating License No. NPF-56 is hereby issued to Public Service Company of New Hampshire et al. (the licensees) to read as follows:

A. This license applies to the Seabrook Station, Unit 1, (the facility) a pressurized water nuclear reactor and associated equipment owned by the licensees. The facility is located in Seabrook Township, Rockingham County, New Hampshire on the southeastern coast of the State of New Hampshire and is described in the licensees' "Final Safety Analysis Report", as supplemented and amended, and in the licensees' Environmental Report, as supplemented and amended.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses;

(1) PSNH pursuant to Section 103 of the Act and 10 CFR 50, to possess, use and operate the facility at the designated location in Rockingham County, New Hampshire in accordance with the procedures and limitations set forth in this license;

(2) The licensees, to possess the facility at the designated location in Rockingham County, New Hampshire in accordance with the procedures and limitations set forth in this license;

(3) PSNH, pursuant to the Act and 10 CFR 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with limitations herein and in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

(4) a. No more than two fuel assemblies shall be out of approved shipping containers or fuel assembly storage racks or reactor vessel at any one time.
b. PSNH shall maintain edge-to-edge distance of 12 inches:

1. Between the above two fuel assemblies,
2. Between fuel assemblies (out of storage) and the shipping container array or reactor vessel, and
3. Between fuel assemblies (out of storage) and the storage rack arrays.

(5) No more than 60 loaded shipping containers shall be allowed onsite at any one time.

(6) No shipping container shall be outside for more than 72 hours from time of receipt onsite.

(7) New fuel assemblies may be stored in the new fuel storage vault subject to the following conditions:

a. The maximum U-235 enrichment shall be 3.55 wt.
b. The maximum number of fuel assemblies that shall be stored in the new fuel storage area shall be 90.
c. The fuel assemblies shall be stored dry in a checkerboard pattern.
d. The Reactor Engineering Department Supervisor or equivalent qualified designee shall verify correct fuel assembly location after insertion into the assigned storage location in accordance with a prepared written procedure approved by the Station Manager.

(8) PSNH is hereby exempted from the provisions of 10 CFR Section 70.24 insofar as this section applies to materials held under this license.

(9) PSNH, pursuant to the Act and 10 CFR 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(10) PSNH, pursuant to the Act and 10 CFR 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(11) PSNH, pursuant to the Act and 10 CFR 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operations of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

PSNH is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% rated power) in accordance with the conditions specified herein. Pending Commission approval of issuance of 100% rated power license, this license is restricted to power levels not to exceed 5 percent of rated power (170 megawatts thermal). The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Public Service Company of New Hampshire shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Inservice Inspection Program (Section 5.2.4, 6.6.3, SER, SSER 3, SSER 4 SSER 5)*

PSNH shall submit the inservice inspection program which conforms to the ASME code in effect 12 months prior to the date of this license, in accordance with 10 CFR Section 50.55a(g)(4), for NRC staff review and approval within six months from the date of this license.

(4) Radiation Data Management System (Section 7.5.2.2 SER, SSER 5)

Qualified non-fuse dependent isolation devices shall be installed and shall be operational before startup after the first refueling outage.

* The parenthetical notation following the title of many license conditions de-

(5) Accident Monitoring Instrumentation, TMI Action Plan Item II.F.1 (Section 11.5.2, SSER 2 and SSER5)

Before startup following the first refueling outage, PSNH shall demonstrate that the iodine/particulate sampling system is operable and will perform its intended function.

(6) Emergency Preparedness (Section 13.3, SER, SSER 4)

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54 (s)(2) will apply.

(7) Initial Test Program (Section 14, SER)

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR Section 50.59 shall be reported in accordance with Section 50.59(b) within one month of such change.

(8) Leakage Reduction Measurement Program (Section 15.9.15, SER, SSER 5)

Before proceeding above 5% of rated power, PSNH shall submit the results of leak rate measurements which demonstrate that its leakage reduction program has been sucessfully implemented.

(9) Safety Parameter Display System (Section 18, SER, SSER 4, SSER 5)

Before restart following the first refueling outage, PSNH shall have operational a Safety Parameter Display System (as described in PSNH's submittals dated January 6, 1986 and April 2, 1986, and as modified by the staff's audit findings) that is acceptable to the NRC.

Before proceeding above 5% of rated power, PSNH shall have installed staff approved qualified isolation devices between the RVLIS and SPDS.

D. PSNH is exempted from the Section III.D.2(b)(ii) containment airlock testing requirements of Appendix J to 10 CFR 50, due to the special circumstance described in Section 6.2.6 of SER Supplement 5 authorized by 10 CFR Section 50.12(a)(2)(iii). This exemption authorized by law, will not present an undue risk to the public health and safety and will not be inimical to the common defense and security of the public. The exemption is hereby granted pursuant to 10 CFR Section 50.12 (51 FR 25279 July 11, 1986). With the granting of this exemption, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

A partial exemption from those portions of General Design Criteria 4 of Appendix A to 10 CFR 50 (which require protection of structures, systems and components important to safety against dynamic effects associated with postulated primary coolant system pipe breaks) was granted on November 22, 1985, for a period ending with the completion of the second refueling outage for Seabrook Station, Unit 1 or the adoption of the proposed rulemaking for modification of GDC-4 whichever occurs first. Effective May 12, 1986, GDC-4 has been modified to exclude from the design basis the protection of structures, systems and components against dynamic effects associated with postulated pipe ruptures of primary coolant system loop piping in pressurized water reactors (51 FR 12502 April 11, 1986).

E. PSNH shall fully implement and maintain in effect all provisions of the physical security, guard training and qualification, and safeguards contingency plans, previously approved by the Commission and all amendments and revisions to such plans made pursuant to the authority of 10 CFR Section 50.90 and 10 CFR Section 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR Section 73.21, are entitled: "Seabrook Station Physical Security Plan", with revisions submitted through June 16, 1986, "Seabrook Station Security Training and Qualification Plan", with revisions submitted through August 14, 1986; and "Seabrook Station Safeguards Contingency Plan", with revision submitted through November 30, 1981.

F. PSNH shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, the Fire Protection Program report, and the Fire Protection of Safe Shutdown Capability report for the facility, as supplemented and amended, and as approved in the Safety Evaluation Report, dated March 1983 and Supplement 4, dated May 1986 and Supplement 5, dated June 1986, subject to the following provision:

PSNH may make changes to the approved fire protection program without prior approval of the Commission, only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

G. Except as otherwise provided in the Technical Specification or Environmental Protection Plan, PSNH shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR Part 50.73(b), (c) and (e).

H. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

I. This license is effective as of the date of issuance and shall expire at Midnight on , 2026.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:
1. Attachment 1 - Work Items to be Completed
2. Appendix A - Technical Specifications (NUREG-1207)
3. Appendix B - Environmental Protection Plan

Date of Issuance:

ATTACHMENT 1 TO NPF-56 - WORK ITEMS TO BE COMPLETED

To be provided by Region I.

NUREG-1207

Technical Specifications

Seabrook Station, Unit 1

Docket No. 50-443

Appendix "A" to
License No. NPF-56

Issued by the
U.S. Nuclear Regulatory
Commission

Office of Nuclear Reactor Regulation

SEPTEMBER 1986

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APPENDIX B

TO FACILITY OPERATING LICENSE NO. NPF-56

SEABROOK STATION, UNIT 1

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

DOCKET NO. 50-443

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

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SEABROOK STATION, UNIT NO. 1

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

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1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) is to provide for protection of non-radiological environmental values during operation of the nuclear facility. The principal objectives of the EPP are as follows:

(1) Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Statement - Operating Licensing Stage (FES-OL) and other NRC environmental impact assessments.

(2) Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.

(3) Keep NRC informed of the environmental effects of facility construction and operation of actions taken to control those effects.

Environmental concerns identified in the FES-OL which relate to water quality matters are regulated by way of the licensee's NPDES permit.

2.0 Environmental Protection Issues

In the FES-OL (NUREG-0895) dated December, 1982, the staff considered the environmental impacts associated with the operation of Seabrook Station, Unit No. 1. No aquatic/water quality, terrestrial, or noise issues were identified.

Aquatic matters are addressed by the effluent limitations and monitoring requirements contained in NPDES Permit No. NH0020338 issued by the U. S. Environmental Protection Agency (Region I) on July 26, 1985. The NRC will rely on the U.S.E.P.A and the NPDES Permit for regulation of matters involving water quality and aquatic biota.

3.0 Consistency Requirements

3.1 Plant Design and Operation

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP*. Changes in station design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this Section.

Before engaging in additional construction or operational activities which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the onsite areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a

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* This provision does not relieve the licensee of the requirements of 10 CFR 50.59.

written evaluation of such activity and obtain prior NRC approval. When such activity involves a change in the EPP, such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns: (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FES-OL, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level; or (3) a matter, not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include written evaluations which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question or constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of the Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

3.2 Reporting Related to the NPDES Permit and State Certification

Changes to, or renewals of, the NPDES Permits or the State certification shall be reported to the NRC within 30 days following the date the change or renewal is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The licensee shall notify the NRC of changes to the effective NPDES Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the NPDES Permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, and local environmental regulations are not subject to the requirements of Section 3.1.

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to plant operation shall be recorded and reported to the NRC within 24 hours followed by a written report per Subsection 5.4.2. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks; mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973; fish kills; increase in nuisance organisms or conditions; and unanticipated or emergency discharge of waste water or chemical substances.

No routine monitoring programs are required to implement this condition.

4.2 Environmental Monitoring

4.2.1 Aquatic Monitoring

The certifications and permits required under the Clean Water Act provide mechanisms for protecting water quality and, indirectly, aquatic biota. The NRC will rely on the decisions made by the U. S. Environmental Protection Agency and the State of New Hampshire under the authority of the Clean Water Act, for any requirements for aquatic monitoring.

4.2.2 Terrestrial Monitoring

Terrestrial monitoring is not required.

4.2.3 Noise Monitoring

Noise monitioring is not required

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organization structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

5.2 Records Retention

Records and logs relative to the environmental aspects of station operation shall be made and retained in a manner convenient for review and inspection. These records and logs shall be made available to NRC on request.

Records of modifications to station structures, systems and components determined to potentially affect the continued protection of the environment shall be retained for the life of the station. All other records, data and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

5.3 Changes in Environmental Protection Plan

Requests for changes in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the EPP.

5.4 Plant Reporting Requirements

5.4.1 Routine Reports

An Annual Environmental Operating Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to May 1 of each year. The period of the first report shall begin with the date of issuance of the operating license, and the initial report shall be submitted prior to May 1 of the year following issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by Subsection 4.2 (if any) of this EPP for the report period, including a comparison with related preoperational studies, operational controls (as appropriate), and previous nonradiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the

licensee shall provide a detailed analysis of the data and a proposed course of mitigating action.

The Annual Environmental Operating Report shall also include:

(1) A list of EPP noncompliances and the corrective actions taken to remedy them.

(2) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental question.

(3) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing results shall be submitted as soon as possible in a supplementary report.

5.4.2 Nonroutine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of a nonroutine event. The report shall: (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact, and plant operating

characteristics; (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event; (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems; and (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection which also require reports to other Federal, State or local agencies shall be reported in accordance with those reporting requirements in lieu of the requirements of this Subsection. The NRC shall be provided with a copy of such report at the same time it is submitted to the other agency.