

APPENDIX B
TO FACILITY OPERATING LICENSE NO. _____
SHOREHAM NUCLEAR POWER STATION, UNIT 1

DOCKET NO. 50-322

ENVIRONMENTAL PROTECTION PLAN
PART II - NON-RADIOLOGICAL

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SHOREHAM NUCLEAR POWER STATION

UNIT 1

ENVIRONMENTAL PROTECTION PLAN

(NON-RADIOLOGICAL)

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1.0 Objectives of the Environmental Protection Plan

The purpose of the Shoreham Environmental Protection Plan (SEPP) is to provide for protection of environmental values during construction and operation of the nuclear facility. The principal objectives of the SEPP are as follows:

- (1) Verify that the plant is operated in an environmentally acceptable manner, as established by the Final Environmental Statement-Operating License Stage (FES-OL) and the New York State Pollution Discharge Elimination System (SPDES) permit.
- (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 and of actions taken to control those effects.

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

2.0 Environmental Protection Issues

In the FES-OL dated October 1977, the staff considered the environmental impacts associated with the operation of the Shoreham Nuclear Power Station, Unit I. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection to the environment.

2.1 Aquatic Issues

Specific aquatic issues raised by the staff in the FES-OL were:

- (1) The need for discharge related aquatic monitoring programs to confirm that the station's cooling water system with its off-shore submerged diffuser performs as predicted and is protective of indigenous biota of Long Island Sound, from a thermal and chemical discharge standpoint.
- (2) The need for intake-related studies to document levels of intake entrainment and impingement, to determine survival of entrained ichthyoplankton, and measure the effectiveness of the fish return system in protecting impinged fish.

(FES-OL: Summary and Conclusions and Sections 5.4, 6.3)

Aquatic issues are now addressed by the effluent limitations, monitoring requirements and other conditions contained in the SPDES permit issued by the State of New York Department of Environmental Conservation (NYSDEC) effective December 1, 1981, as renewed. The NRC will rely on the NYSDEC for regulation of matters involving water quality and aquatic biota.

2.2 Terrestrial Issues

No significant causal link has been identified between operation of the Shoreham Nuclear Power Station and terrestrial environmental protection issues. However, the staff indicated two areas of potential concern: 1) beach erosion and 2) protection of the Wading River Marsh. The following conditions of the construction permit regarding these concerns were recommended by the staff to be carried over as conditions to the operating license:

- (1) Monitor the accumulation and/or erosion of beach sand and gravel in the vicinity of the facility site.
- (2) Protect the Wading River Marsh from depositions of sand and other materials transported from the facility site.

(FES-OL: Summary and Conclusions and Section 6.2, 6.3)

3.0 Consistency Requirements

3.1 Plant Design and Operation

The licensee may make changes in plant design or operation or perform tests or experiments affecting the environment provided such changes, tests or experiments do not involve an unreviewed environmental question, and do not involve a significant diminution or thwarting of the objectives of the Environmental Protection Plan. Changes in plant design or operation or performance tests or experiments which do not significantly affect the environment are not subject to the requirements of this SEPP. 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. When the evaluation indicates that such activity involves an unreviewed environmental question, unless such activity has been reviewed by another appropriate responsible agency such as NYSDEC, the licensee shall provide a written evaluation of such activities and obtain prior approval from the Director, Office of Nuclear Reactor Regulation. When such activity involves a significant change in the Environmental Protection Plan, which does not fall within the jurisdiction of another appropriate agency such as NYSDEC, such activity and change to the Environmental Protection Plan may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3.

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 final environmental statement (FES) as modified by staff's testimony to the Atomic Safety and Licensing Board, supplements to the FES, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level [in accordance with 10 CFR Part 51.5(b)(2)]; or (3) a matter not previously reviewed and evaluated in the documents or by the appropriate responsible agencies specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in plant design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include a written evaluation which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question nor 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 his Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

Violations of the SPDES Permit shall be reported to the NRC by submittal of copies of the reports required by the SPDES Permit. The licensee shall also provide the NRC with copies of the results of the monitoring studies conducted in accordance with the SPDES Permit at the same time they are submitted to the permitting agency. Changes and additions to the SPDES Permit shall be reported to the NRC within 90 days following the date the change is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 90 days following the date the stay is granted.

The NRC shall be notified of changes to the effective SPDES 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 notification of a licensee-initiated change shall include a copy of the requested revision submitted to the permitting agency. The licensee shall provide the NRC with a copy of its application for renewal of the SPDES 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 station operation shall be recorded and promptly reported to the NRC within 30 days by telephone, telegraph, facsimile transmissions, or a written report per subsection 5.4.2, unless: if the unusual event is water related and thereby covered by the SPDES Permit, the licensee will provide to the NRC copies of reports submitted to the NYSDEC. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks, unusual mortality 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 Maintenance of Transmission Line Corridors

The use of herbicides within the Shoreham Nuclear Power Station transmission line corridors shall conform to the approved use of selected herbicides as registered by the Environmental Protection Agency and approved by State authorities and applied as directed by said authorities.

Records shall be maintained in the appropriate division office concerning herbicide use. Such records shall include the following information: commercial and chemical names of materials used; concentration of active material in formulations diluted for field use; diluting substances other than water; rates of application; method and frequency of application; location; and the date of application. Such records shall be maintained for a period of 3 years in conformance with NYS Department of Environmental Conservation requirements and be made readily available to the NRC upon request. There shall be no routine reporting requirement associated with this condition.

4.2.2 Monitoring of Water Levels and Quality in Onsite Wells

A program will be established, commencing at the initiation of low power testing and running for a period of two years, to establish the effect of fresh water consumption on ground water levels and quality. Quarterly, water level readings will be taken and samples will be drawn for chloride analysis from one or more wells located onsite or offsite. Results will be tabulated and maintained for a period of up to 5 years. There shall be no routine reporting requirement associated with this condition except that if unforeseen effects are noted, a report will be prepared and submitted to the NRC as required under section 4.1.

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the Shoreham Environmental Protection Plan. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity and in accordance with Nuclear Operations Corporate Policy. 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 plant 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 plant structures, systems and components determined to have the potential to significantly affect the continued protection of the environment shall be retained for the life of the plant. 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 Shoreham Environmental Protection Plan

Request for change in the Shoreham Environmental Protection Plan shall include an assessment of the environmental impact of the proposed change and a supporting justification when the change involves an unreviewed environmental question as defined in Section 3. Implementation of significant 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 SEPP. Proposed changes to scopes of work for environmental monitoring programs conducted to fulfill requirements of the SPDES Permit and meet the objectives of the SEPP shall not be subject to prior NRC approval before implementation provided NYSDEC has approved any such proposed change. Similarly, a license amendment need not be required for any such modification or change of scope.

5.4 Plant Reporting Requirements

5.4.1 Routine Reports

An Annual Environmental Operating Report describing environmental monitoring studies conducted during the previous calendar year by the licensee or directed by this SEPP or the SPDES Permit shall be submitted to the NRC per the schedule for reporting contained in the SPDES Permit.

The Report shall include summaries and analysis of the results of the environmental protection activities required by Subsection 4.2 of this Environmental Protection Plan for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of the station operation on the environment. If harmful effects or evidence of trends towards irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Environmental Operating Report shall also include:

- (a) A list of SEPP noncompliances and the corrective actions taken to remedy them.
- (b) 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 issue.
- (c) 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 data 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 considered reportable within the context of the SPDES Permit or the SEPP. The report shall, to the extent practicable be a duplicate of that required by the SPDES Permit, and, (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 a copy of such report at the same time it is submitted to the other agency.