

UNITED STATES NUCLEAR REGULATORY COMMISSION
GPU NUCLEAR CORPORATION AND
JERSEY CENTRAL POWER & LIGHT COMPANY
OYSTER CREEK NUCLEAR GENERATING STATION
DOCKET NO. 50-219
AVAILABILITY OF ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT CHANGE IN IMPACTS
RELATING TO THE FULL-TERM OPERATING LICENSE REVIEW

The Nuclear Regulatory Commission's (NRC) Office of Nuclear Reactor Regulation (staff) has issued an Environmental Assessment related to the application for Full-Term Operating License (FTOL) filed by GPU Nuclear Corporation on March 6, 1972, for its Oyster Creek Nuclear Generating Station located in Ocean County, New Jersey.

In preparation for the conversion of Provisional Operating License (POL) No. DPP-16 for Oyster Creek to an FTOL, the NRC staff performed an assessment of the existing Final Environmental Statement (FES) dated December 1974.

The NRC staff has evaluated the environmental effects of the continued operation of Oyster Creek station and reexamined the impacts initially presented in the FES. Based on this evaluation, the NRC staff has determined that: (1) there are no new impacts that differ significantly from those evaluated in the FES, there are no substantial changes in the proposed actions relevant to environmental concerns and there are no significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impact and, thus, issuance of a supplement to the FES is not required under the National Environmental Policy Act (NEPA);

- 2 -

and (2) the conclusion on page 10-10, Section 10, Benefit-Cost Analysis, of the 1974 FES, as applied to Oyster Creek station, is still valid.

FINDING OF NO SIGNIFICANT CHANGE IN IMPACT

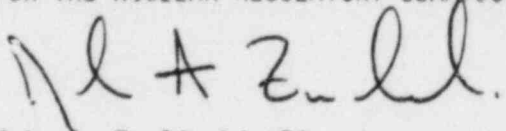
The Commission has determined not to prepare a supplement to the FES for the proposed FTOL conversion.

Based upon the environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment beyond that described in the 1974 FES.

For further details with respect to this action, see the Commission's Environmental Assessment dated April 10, 1986 and the 1974 FES, which are available for public inspection at the NRC Public Document Room, 1717 H Street, NW, Washington, DC 20555, and at the Local Public Document Room, Ocean County Library, 101 Washington Street, Toms River, New Jersey 08753.

Dated at Bethesda, Maryland, this 10th day of April 1986.

FOR THE NUCLEAR REGULATORY COMMISSION


John A. Zwolinski, Director
BWR Project Directorate #1
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APPENDIX B

TO FACILITY OPERATING LICENSE NO. _____

UNITS 1 AND 2

ENVIRONMENTAL PROTECTION PLAN
(NONRADIOLOGICAL)

L.A. 1

UNITS 1 AND 2

ENVIRONMENTAL PROTECTION PLAN
(NONRADIOLOGICAL)

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 Objectives of the Environmental Protection Plan.....	1-1
2.0 Environmental Protection Issues.....	2-1
2.1 Aquatic Issues.....	2-
2.2 Terrestrial Issues.....	2-
3.0 Consistency Requirements.....	3-1
3.1 Plant Design and Operation.....	3
3.2 Reporting Related to the NPDES Permit and State Certifications.....	3-
3.3 Changes Required for Compliance with Other Environmental Regulations.....	3-
4.0 Environmental Conditions.....	4-1
4.1 Unusual or Important Environmental Events.....	4-
4.2 Environmental Monitoring.....	4-
5.0 Administrative Procedures.....	5-1
5.1 Review and Audit.....	5-
5.2 Records Retention.....	5-
5.3 Changes in Environmental Protection Plan.....	5-
5.4 Plant Reporting Requirements.....	5-

DRAFT

1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) is to provide for protection of nonradiological 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 and 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.

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2.0 Environmental Protection Issues

In the FES²OL dated . , the staff considered the environmental impacts associated with the operation of the two unit r Power Plant. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

2.1 Aquatic Issue.

2.2 Terrestrial Issues

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 on-site 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 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.

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

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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.

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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**

(1) 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 under the authority of the Clean Water Act for any requirements for aquatic monitoring.

4.2.2 Terrestrial Monitoring

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 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 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

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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.

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Company and General Public Utilities (GPU) Nuclear Corporation (the licensee) for operation of OCNGS at power levels up to 1930 megawatts thermal (Mwt). The original authorized licensee has evolved where now GPU Nuclear Corporation is the entity responsible for the operation of OCNGS. Since the license was granted, OCNGS has operated at or near 1930 Mwt except for outages and derated plant operation because of plant operating conditions.

Pursuant to Section A of revised Appendix D of 10 CFR Part 50 (currently 10 CFR Part 51), the licensee submitted to the Director of Regulation ~~on~~ ~~March 26, 1964~~ an environmental report. The revised regulation further required that the Director of Regulation, or his designee, analyse this report and prepare a detailed statement of environmental considerations. It is within this framework that an FES related to the operation of OCNGS was issued by the staff in December 1974. The proposed action addressed in the FES was the conversion of the POL No. DPR-16 to a Full Term Operating License (FTOL). The AEC issued a notice of its intent to issue a FTOL in the FEDERAL REGISTER on November 28, 1972 (37 FR 25190). The FES for OCNGS was issued in support of this action; however, the license conversion process was delayed due to the inception of the staff's Systematic Evaluation Program (SEP). The SEP is a program to review the designs of older operating nuclear plants such as OCNGS to document their safety against newer licensing criteria.

702, 1978) that the NRC ~~does not have the authority to~~ ^{should not impose} include any non-radiological license conditions for the protection of the aquatic environment because the Clean Water Act places full responsibility for such matters with the USEPA (or those states to which authority has been delegated). Effluent limitations and water quality monitoring at power plants are imposed by USEPA via the National Pollution Discharge Elimination System (NPDES) Permit issued for each facility. Amendment 66 to POL No. DPR-16 for OCNGS became effective on March 24, 1983, and deleted from the Appendix B Environmental Technical Specifications nonradiological requirements related to the following: limiting conditions for operation (LCOs); thermal plume analysis; hydrographic analysis; and ecological studies. The USEPA issued NPDES Permit No. NJ0005550 for OCNGS on January 31, 1975. The permit expired on January 30, 1980, but remains in effect during the renewal process by the State of New Jersey, which has been delegated permitting authority by the USEPA. A new draft permit has been prepared by the State for OCNGS (Ref. 43). Following the public review, the State will finalize the Permit and formally reissue it for a 5-year period. X

4.1 Intake Effects

The 1974 FES for OCNGS assessed the effects of water withdrawal on the aquatic resources of Oyster Creek, Forked River, and Barnegat Bay. Those effects were related to flow changes in the Creek and River, and to impingement and entrainment of Barnegat Bay biota.

of reduced effluent temperature and wood removal (during 1976), enhanced by a winter station outage that killed the less tolerant non-native shipworm species. In this regard, an outage that resulted in a kill of greater than 7000 fishes (see Section 3.2.2 above), helped to reduce the local impact of shipworm infestation. The NRC sponsored study found that while OCNGS certainly contributed adult and larval shipworms to Barnegat Bay, no dramatic buildup of shipworms in the bay occurred (except in areas influenced by station thermal effluents). Such a buildup is unlikely in the future, given the present thermal regime and the frequency of station outages (Ref. 35).

The natural introduction of non-native shipworms into the area during the early 1970s (coupled with their enhancement by OCNGS operation), suggests that re-introduction at a future date is possible. The mitigative measures taken by the licensee decreased the suitability of the area as a shipworm habitat, however, the area still is habitable. The NRC sponsored study (Ref. 35) found that as long as there is any unprotected wood in the area influenced by station discharges, a breeding population of borers will be maintained under present OCNGS operating conditions. The study concluded that the best course of action is for the licensee to continue to assist local affected property owners in replacing wooden structures with properly treated wood. ~~This should extend into the affected areas of Forked River also. Such an effort will not only aid affected people, but also will serve to reduce the inhabitable substrata for borers, thus decreasing the potential for future problems.~~

*data suggests that the
Nevertheless, as previously indicated, a widespread shipworm impact projected by the FES has not occurred and nothing beyond the FES recommendations (Summary and Conclusion 7(b), 7(c) and Section 6.2.3.1) is warranted.*

4.4 Canal Bank Stabilization

Erosion of the banks by runoff has been a problem since the canal was built. The canal banks were originally dredged with a design slope of 1 1/2 to 1 vertical to horizontal. As reported in the 1974 FES the licensee had begun stabilizing the eroding banks and were to be required to completely stabilize the canal banks.

In 1975 the bank stabilization program was completed. This program included lining the intake and discharge canal banks west of U.S. Route 9 and portions of the canal banks east of U.S. Route 9 with riprap, placing smaller stones above the riprap and spraying the stone with AC-20 oil to increase stabilization (Ref. 23). On a May 16, 1984 visit, the NRC staff noted that the canal banks are now well stabilized.

4.5 Areas Denuded For Plant Construction

Erosion occurring on exposed areas continues to result in the addition of silt to surface waters. During the construction of OCNGS a number of areas were stripped of vegetation for laydown or other construction activities. Much of the disturbed area has not been replanted. In addition the dredge spoil resulting from the construction of the intake and discharge canals was deposited at various locations on and off site (Fig.4-1). ~~During 1984 and 1985~~ Areas of the intake canal ~~will again be~~ dredged and the spoil deposited on the southeastern portion of the site. X

have been
Approximately
50% of this dredging has been
completed (Ref. 49).

One of the provisions stated in the 1974 FES was that the applicant "will take action to revegetate the areas denuded by plant construction." Because the licensee has not revegetated the site, this provision is still appropriate.

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There are 11 areas that have not been revegetated (Ref. 24). Of these 11 areas, ~~7~~ ^{all} are scheduled for revegetation this year, ~~6~~ are to be revegetated this year or next, and ~~2~~ areas are scheduled to be revegetated ~~in 1986~~. The spoil, dredged in 1984 and 1985, will be revegetated after completion of dredging in 1985, according to the dredging permit with the County Soil Conservation District.

In addition a second nuclear generating station was to be constructed on this site (Forked River) and 80 acres were cleared for its construction. These 80 acres are presently unvegetated, used for laydown, or are occupied by temporary or permanent buildings.

and are by the licensee

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The State of New Jersey regulates all types of construction. These regulations are administered through County Soil Conservation Districts. Under these regulations, the utility needs permits to install erosion control facilities and to deposit dredge spoil. In order to get the permits the utility must submit plans for approval for each area to the Ocean County Soil Conservation District (the County in which CCNGS

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5 have been revegetated,
4 are scheduled for 1986
and, ^{for} the remaining two,
1 is scheduled to be revegetated
by 1987, and 1 by 1988 (Ref.
49).

41. Letter dated February 7, 1984, from: Charles J. Kulp, U.S. Fish and Wildlife Service to: D. M. Crutchfield, USNRC.
42. Jenkins, C. David, Jr., 1984. State of New Jersey, Department of Environmental Protection, letter to Clarence Hickey, USNRC, February 14.
43. FES 1979. Terrestrial Environmental Program Forked River Nuclear Station Annual Report March 1978 - February 1979. Terrestrial Environmental Specialist, Inc., Phoenix, NY.
44. Telephone conversation between C. Hickey, USNRC, and E. Marra, New Jersey Division of Environmental Protection, on June 29, 1984.
45. Oak Ridge National Laboratory Technical Evaluation Report to USNRC under contract W-705-eng-26, ORNL/NSIC-173, Review of the Operating Experience History of Oyster Creek Through 1981 for the NRC's Systematic Evaluation Program, July 1983.
46. Jersey Central Power & Light Company, Environment Report, Oyster Creek Nuclear Generating Station, 1972.
47. Integrated Plant Safety Assessment Report for Oyster Creek Nuclear Generating Station, NUREG-0822, Docket No. 50-219, dated January 1983.
48. Letter dated October 22, 1984, from: P. B. Fiedler, GPU Nuclear, to: Mr. Walter A. Paulson, USNRC.

Principal Contributors: L. Bell, D. Cleary, E. Fields, C. Hickey, G. LaRoche, M. Wohl and J. Donohew.

Dated:

49. Telephone conversation between R. Lacey, GPU Nuclear, and J. Donohew, USNRC, on April 3, 1986.

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and (2) the conclusion on page 10-10, Section 10, Benefit-Cost Analysis, of the 1974 FES, as applied to Oyster Creek station, is still valid.

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FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare a supplement to the FES for the proposed FTOL conversion.

Based upon the environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment beyond that described in the 1974 FES.

For further details with respect to this action, see the Commission's Environmental Assessment dated March , 1986 and the 1974 FES, which are available at the NRC Public Document Room, 1717 H Street, NW, Washington, DC 20555, and at the Local Public Document Room, Ocean County Library, 101 Washington Street, Toms River, New Jersey 08753.

Dated at Bethesda, Maryland, this day of

FOR THE NUCLEAR REGULATORY COMMISSION

John A. Zwolinski, Director
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