



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

July 17, 1986

Docket No. 50-219

Mr. P. B. Fiedler
Vice President and Director
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Fiedler:

SUBJECT: APPENDIX B, ENVIRONMENTAL TECHNICAL SPECIFICATIONS
(TAC 60763)

Re: Oyster Creek Nuclear Generating Station

The Commission has issued the enclosed Amendment No.107 to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station. This amendment is in response to your application dated February 3, 1986.

This amendment authorizes changes to Section 1, 2, 3, and 4 of the Appendix B, Environmental Technical Specifications (ETS) pertaining to Definitions, Environmental Monitoring, Special Monitoring and Study Activities, and Administrative Controls, respectively. These changes revise or delete the following:
(a) revise the table of contents, (b) delete the definitions, (c) delete monitoring of impingement of organisms, and the Woodborer Monitoring Program, (d) revise the Fish Kill Monitoring Program, (e) revise Section 3.2, Unusual or Important Environmental Events, and (f) revise the sub-sections in Section 4.0, Administrative Controls. Because these changes are extensive, the ETS are being reissued in their entirety.

As stated in the enclosed Safety Evaluation (SE) related to this amendment and in the staff's Environmental Assessment for the Full Term Operating License dated April 10, 1986, you are requested to propose changes to the ETS to remove all non-radiological monitoring which is under the provisions of the Clean Water Act and the authority of the State of New Jersey. The ETS should be in the format of the staff's draft Environmental Protection Plan (EPP) for Oyster Creek. The draft EPP is attached to the enclosed SE. You are requested to propose these changes to the ETS so that they would be issued no later than with the Full Term Operating License Technical Specifications.

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PDR ADOCK 05000219
P PDR

July 17, 1986

The Notice of Issuance will be included in the Commission's biweekly Federal Register notices.

Sincerely,

Original signed by:

Jack N. Donohew, Jr., Project Manager
BWR Project Directorate #1
Division of BWR Licensing

Enclosures:

- 1. Amendment No. 107 to License No. DPR-16
- 2. Safety Evaluation

cc w/enclosures:
See next page

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Mr. P. B. Fiedler
Oyster Creek Nuclear Generating Station

Oyster Creek Nuclear
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

GPU NUCLEAR CORPORATION

AND

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No.107
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by GPU Nuclear Corporation and Jersey Central Power and Light Company (the licensees) dated February 3, 1986, 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.

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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 Provisional Operating License No. DPR-16 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.107, are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Jack W. Donohew, Jr., Project Manager
BWR Project Directorate #1
Division of BWR Licensing

Attachment:
Changes to the Appendix B
Technical Specifications

Date of Issuance: July 17, 1986

ATTACHMENT TO LICENSE AMENDMENT NO.107

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Revise Appendix B Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain vertical lines indicating the area of change.

REMOVE

Appendix B
Technical
Specifications
in its entirety

INSERT

Appendix B
Technical
Specifications
in its entirety

APPENDIX B

TO PROVISIONAL OPERATING LICENSE NO. DPR-16

ENVIRONMENTAL TECHNICAL SPECIFICATIONS

FOR

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

OCEAN COUNTY, NEW JERSEY

JERSEY CENTRAL POWER & LIGHT COMPANY

GPU NUCLEAR CORPORATION

November 1978*

*Issued to the ASLB on this date; issued by License Amendment No. 37,
June 6, 1979.

Amendment No.: 59, 66, 107

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INTRODUCTION

The bases, which provide technical support for the OCETS, are included for informational purposes in order to clarify the intent of the specification. These bases are not part of the OCETS nor do they constitute limitations or requirements on the licensee.

1.0 ENVIRONMENTAL MONITORING

1.1 Nonradiological Monitoring

1.1.1 Biotic - Aquatic

A. Fish Kill Monitoring Program

Objective

The objective of this program is to determine the species composition, abundance and distribution of station-induced fish kills due to winter shutdowns.

Specifications

After each Station shutdown, when the intake water temperature is below 8.5°C (47.3°F), visual inspections for fish shall be made along the shores of the discharge canal and the lower reaches of Oyster Creek within 24 hours of the initiation of the shutdown in accordance with the procedures prepared by the licensee per Section 3.4. A continuous temperature record shall be maintained through the 24-hour period after reaching cold shutdown.

Reporting Requirements

For planned shutdowns with the temperature of the intake water below 8.5⁰C (47.3⁰F) the NRC Region I office will be notified at least 24 hours in advance of such shutdown. This notification shall not be given for unplanned, automatic, or manual station trips.

If the shutdown results in greater than 100 fish killed and/or stressed, this event shall be reported to the NRC in accordance with Section 3.5.2.

The results of this program shall be included with the Annual Environmental Operating Report submitted in accordance with section 3.5.1.

Bases

The Final Environmental Statement for the Oyster Creek Nuclear Generating Station documents cold shock fish kills associated with rapid temperature decreases caused by plant shutdown during the winter.

Station shutdowns during winter months are, on occasion, unavoidable. Due to the physical configuration of the station and the discharge canal, some mortality to organisms may be experienced during winter shutdowns.

Mortality information associated with a winter shutdown will provide the empirical bases on which to judge the impact of these fishkills on Barnegat Bay, Oyster Creek, and Forked River.

2.0 SPECIAL MONITORING AND STUDY ACTIVITIES

2.1 Unusual or Important Environmental Events

Environmental Monitoring Requirement

Unusual or important events are those that cause potentially significant environmental impact or that could be of public interest concerning environmental impact from station operation. The following are examples: on-site plant or animal disease outbreaks; unusual mortality of any species protected by the Endangered Species Act of 1973; fish kills in the vicinity of the site; unusually high impingement mortality episodes.

Action

Should an unusual or important event occur, the licensee shall make a non-routine prompt report to the NRC in accordance with the provisions of Subsection 3.5.2.

Bases

Prompt reporting to the NRC of unusual or important events as described above is necessary for responsible and orderly regulation of the nation's system of nuclear power reactors. The information provided may be useful or necessary to others concerned with the same environmental resources. Prompt knowledge and action may serve to alleviate the magnitude of the environmental impact.

3.0 ADMINISTRATIVE CONTROLS

This section describes administrative and management controls established by the Applicant to provide continuing protection to the environment and to implement the environmental technical specifications.

3.1 Responsibility

Corporate responsibility for implementation of the Oyster Creek Environmental Technical Specifications and for assuring that plant operations are controlled in such a manner as to provide continuing protection of the environment has been assigned by the Office of the President to the Vice President and Director Oyster Creek.

The responsibility for conducting the studies as set forth in Section 1.1 (Non-Radiological Monitoring) and all of Section 2.0 (Special Monitoring and Study Activities) rests with the GPUNC Industrial Safety & Environmental Controls Director.

Administrative measures are defined in Section 3.3 which provide that the individual or group responsible for auditing or otherwise verifying that an activity has been correctly performed is independent of the individual or group responsible for performing the activity.

3.2 Organization

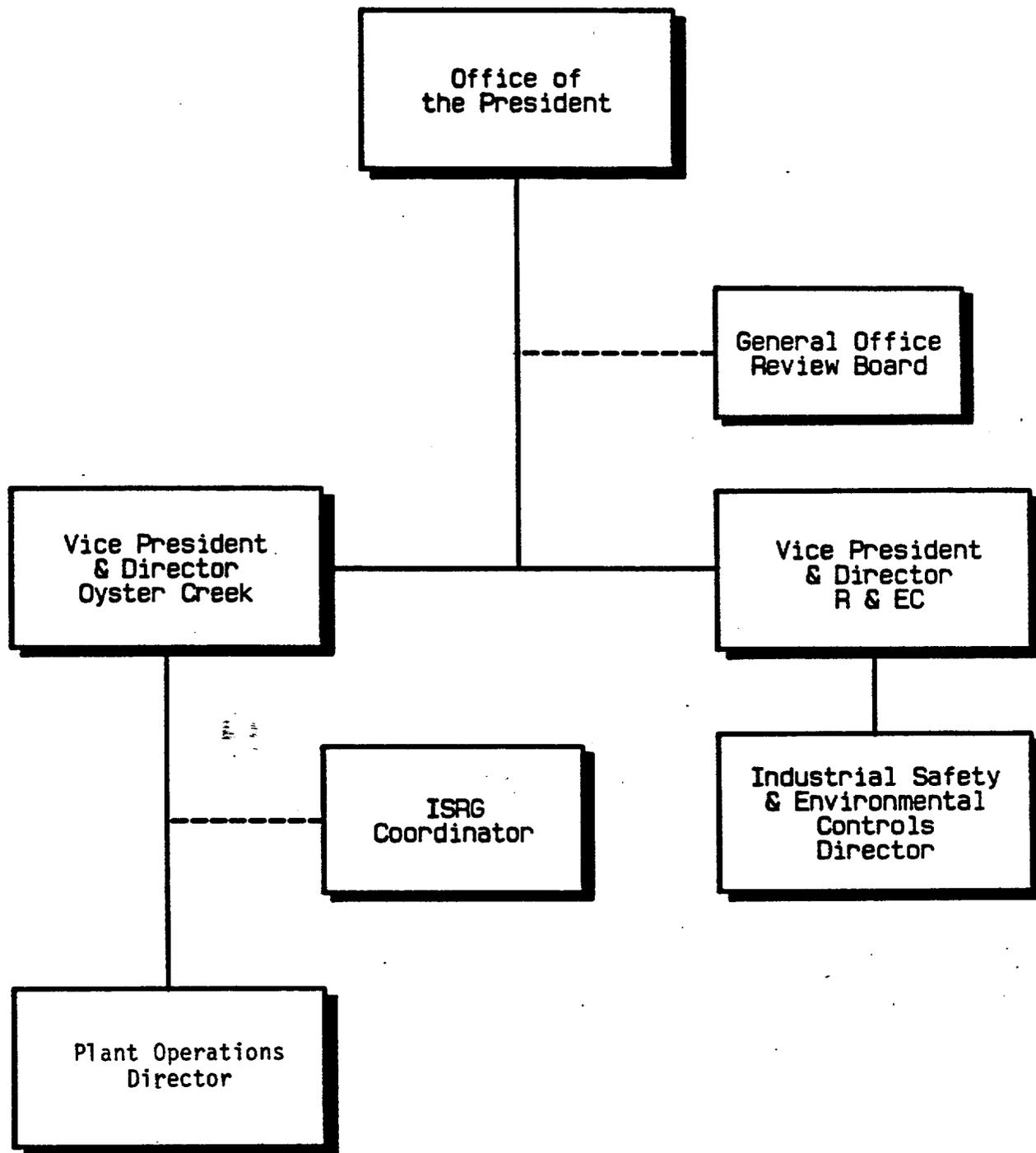
The organization of the personnel responsible for implementation, audit, and review of the OCETS is shown in Figure 3-1.

3.3 Review and Audit

Independent audit and review functions for environmental matters are the responsibility of the GPUNC Industrial Safety & Environmental Controls Director. This department reports directly to the Vice President and Director Radiological & Environmental Controls and is independent of line responsibility for the operation of the plant. The independent reviews and audits of the OCETS will be carried out by personnel from the Environmental Controls Department or by other personnel from GPUNC, GPUSC, outside contractors or consultants at the request of the Environmental Controls Department.

When individuals in the Environmental Controls Department of GPUNC perform any function relating to the OCETS other than independent audit and review, the Vice President and Director of Oyster Creek will ensure that an independent review and audit of that work is performed by another individual in the Environmental Controls Department or some other who is not directly responsible for the specific activity being reviewed and audited.

The audits and reviews will be performed as required or requested but in no case less than yearly. The results of all reviews and audits will be documented in report directly to the Vice President and Director Oyster Creek.



LEGEND:

- Direct Responsibility
- - - - - Advisory Capacity

Figure 3 - 1

Organization for the
Implementation of the
Environmental Technical
Specifications

Amendment No.: 30, 31, 32, 33, 107

Independent audits and reviews will encompass:

- A. Coordination of the OCETS with the safety technical specifications to avoid conflicts and maintain consistency.
- B. Compliance of station activities and operations with the OCETS.
- C. Adequacy of the programs and station procedures which are involved in ensuring the plant is operated in accordance with the OCETS.
- D. The proper functioning in accordance with the responsibilities listed in Section 3.1 of the OCETS.
- E. Proposed changes to the OCETS and the evaluation of the impacts resulting from the changes.
- F. Proposed written procedures, as described in Section 3.4.1 and proposed changes thereto which affect the environmental impact of the plant.
- G. Proposed changes or modifications to plant systems or equipment and a determination of the environmental impact resulting from the changes.

- H. Adequacy of investigations of violations of the OCETS and adequacy of and implementation of the recommendations to prevent recurrence of the violations.

3.4 Procedures

- 3.4.1 Detailed written procedures, including applicable check lists and instructions, will be prepared and adhered to for all activities involved in carrying out OCETS.

3.5 Plant Reporting Requirements

3.5.1 Routine Reports

A. Annual Environmental Operating Report

A report on the non-radiological environmental surveillance programs for the previous 12 months of operation shall be submitted to the Office of Inspection and Enforcement (with copy to the Director of Nuclear Reactor Regulation) as a separate document within 90 days after January 1 of each year (except as otherwise specified in the OCETS). In the event that some results are not available within the 90-day period, the report will be submitted noting and explaining the reasons for the missing data. The missing data shall be submitted as soon as possible in a supplementary report.

The report shall include summaries, analyses, interpretations and statistical evaluation of the results of the environmental monitoring required by the non-radiological environmental monitoring activities (Section 1), and the special monitoring study activities (Section 2) for the report period, including a comparison with preoperational studies, operational controls (as appropriate) and previous environmental monitoring reports, and an assessment of the station operation on the environment. If harmful effects or evidence of irreversible damage are suggested by the monitoring or special programs, the licensee shall provide a more detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Report shall also include a summary of:

- 1) All NEORs and the corrective action taken to remedy them.
- 2) Changes made to state and federal permits and certificates which pertain to the requirements of OCETS.
- 3) Changes in station design which could involve an environmental impact.
- 4) Changes in ETS.

3.5.2 Non-Routine Environmental Operating Reports

A prompt report shall be submitted in the event that an Unusual or Important Environmental Event occurs (as specified in Section 2.1). Such an occurrence will be reported within 24 hours by telephone, telegraph, or facsimile transmission to the Office of Inspection and Enforcement and within 30 days by a written report to the Director of the Office of Inspection and Enforcement (with copy to the Director of Nuclear Reactor Regulation).

The written report and, to the extent possible, the preliminary telephone, telegraph, or facsimile report shall (a) describe, analyze, and evaluate the occurrence, including the extent and magnitude of the impact, (b) describe the cause of the occurrence, and (c) indicate the corrective action, if necessary, taken (including any significant changes made in the procedures) to preclude repetition of the occurrence should the occurrence be station related.

3.5.3 Change in Environmental Technical Specifications

A. A report shall be made to the NRC prior to implementation of a change in plant design, in plant operation, or in procedures described in Section 3.4, only if the change would have a significant adverse effect on the environment or involves an environmental matter or question not previously reviewed and evaluated by the NRC. The report shall include a description and evaluation of the changes and a supporting benefit-cost analysis.

- B. Request for changes in environmental technical specifications shall be submitted to the Director of Nuclear Reactor Regulation for review and authorization. The Request shall include an evaluation of the environmental impact of the proposed change and a supporting benefit-cost analysis.
- C. Changes or additions to required Federal, and State permits and certificates for the protection of the environment that pertain to the requirements of OCETS shall be reported to the NRC within 30 days. In the event that the licensee initiates or becomes aware of a request for changes to any of the water quality requirements, limits or values stipulated in any certification or permit issued pursuant to Section 401 or 402 of the Federal Water Pollution Control Act (PL 92-500) which is also the subject of an OCETS reporting requirement, NRC shall be notified concurrently with the authorizing agency. The notification to the NRC shall include an evaluation of the environmental impact of the revised requirement, limit or value being sought.

If, during NRC's review of the proposed change, it is determined that a potentially severe environmental impact could result from the change, the NRC will consult with the authorizing agency to determine the appropriate action to be taken.

3.6 Records Retention

3.6.1 Eighty (80%) percent data recovery annually for each environmental monitoring requirement is considered satisfactory for the purposes of the OCETS. The variability and uncertainty of environmental conditions demand allowance for some missed data in order to preclude an excessive reporting burden. This provision for missed data does not permit deliberate omission of sample collection or analyses but rather is meant to cover data missed due to circumstances beyond the control of the licensee, its representative or subcontractor. Records of the reasons for all missed data shall be retained with the data reports.

3.6.2 Records and logs relative to the following areas will be retained for the life of the plant.

- A. Records and drawings detailing plant design changes made to systems and equipment as described in Section 3.5.3.
- B. Records of all environmental surveillance data.

3.6.3 All other records and logs relating to the environmental technical specifications will be retained for five years following logging or recording.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 107 TO PROVISIONAL OPERATING LICENSE NO. DPR-16

GPU NUCLEAR CORPORATION AND

JERSEY CENTRAL POWER & LIGHT COMPANY

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

By letter dated February 3, 1986, GPU Nuclear (the licensee) requested an amendment to Provisional Operating License No. DPR-16 for the Oyster Creek Nuclear Generating Station (Oyster Creek). This amendment would authorize changes to Sections 1, 2, 3, and 4 of the Appendix B, Environmental Technical Specifications (ETS). These changes pertain to Definitions, Environmental Monitoring, Special Monitoring and Study Activities, and Administrative Controls of the ETS, respectively.

2.0 DISCUSSION

The licensee in its letter dated February 3, 1986, has proposed Technical Specification Change Request (TSCR) 139 to change the ETS. This proposal is to revise or delete certain requirements and revise Section 4, Administrative Controls. These changes would revise or delete the following: (a) revise the table of contents including deleting the list of references, (b) delete the list of tables and figures, (c) delete the definitions, (d) delete the introductory paragraph in Section 2.1, (e) delete Table 2-1 and 2-2, (f) delete Section 2.1.1.A, Impingement of Organism, (g) revise Section 2.1.1.B, Fish Kill Monitoring Program, (h) delete Section 3.1, Woodborer Monitoring Program, (i) delete the second paragraph in Section 3.2, Unusual or Important Environmental Events, (j) revise Section 4.1, Responsibility, Administrative Controls, and Figure 4-1 for new titles, (k) delete reference to Section 4.4.3 in item F and H of Section 4.3, Review and Audit, Administrative Controls, (l) revise Section 4.4.1 and delete Sections 4.4.2 and 4.4.3, Procedures, (m) revise item 1 of Section 4.5.1.A, Routine Reports, and (n) revise the page numbers of the ETS.

The licensee has proposed TSCR 139 to revise or delete the environmental monitoring requirements on impingement of organisms, fish kill monitoring, woodborer monitoring, water quality study, and reporting. The licensee stated that it is deleting references to limiting conditions for operation (LCO) which have been previously deleted from the ETS. The licensee

explained that these requirements are either in other enforceable documents which render the environmental monitoring requirements in the ETS unnecessary, the extensive data base which has been developed addresses the issue fully and it is no longer necessary to require the studies through the ETS, or the licensee maintains an Environmental Control Plan which sets forth the policies and objectives for conservation and protection of the environment and it is no longer necessary for Sections 4.4.2 and 4.4.3 to remain in the ETS. The licensee further explained that (1) Section 316 (a) and (b), Clean Water Act, demonstrations before the State of New Jersey, Department of environmental Protection (NJDEP), has the objective to assess the impingement, entrainment and thermal effects associated with station operation and (2) the woodborer monitoring program has a data base developed and presented in 42 quarterly reports submitted to NRC. The licensee stated that the TSCR also includes administrative changes to achieve consistency throughout the ETS and to revise titles to reflect the licensee's organization which has responsibility for the implementation of the ETS.

3.0 EVALUATION

The licensee submitted TSCR No. 139 to change the ETS for Oyster Creek. The requested changes are summarized as follows:

- (1) Deletion of the definitions section;
- (2) Deletion of several monitoring requirements;
- (3) Maintaining the fish kill/station shutdown monitoring with its reporting criteria; and
- (4) Revise the Administrative Controls.

We have reviewed the licensee's TSCR against the Final Environmental Statement (FES) dated December 1974, the Environmental Assessment for the Full Term Operating License (EA) dated April 10, 1986, and the current NRC practice of replacing ETS with an Environmental Protection Plan (EPP) that places NRC reliance on the State-issued discharge permit for protection of the aquatic environment. The licensee proposes to retain the ETS, with a monitoring program for fish kills related to station shutdowns in winter. It is NRC's practice not to require monitoring for water quality and aquatic biota at operational nuclear facilities and to place reliance on the station discharge permit for protection of the aquatic environment. The background for this practice was summarized in Section 4.0 of the 1986 EA, and is restated here for clarity. The U.S. Environmental Protection Agency (USEPA) has developed regulations and procedures for implementation of Clean Water Act provisions applicable to aquatic and water quality aspects of nuclear steam electric generating stations. The Clean Water Act procedures apply to and constrain the major impacting features of the NRC licensed reactors. The NRC Atomic Safety and Licensing Appeal Board decided in the Yellow Creek Case (ALAB-515; 8 NRC 702, 1978) that the NRC should not impose 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 Pollutant Discharge Elimination System (NPDES) Permit issued for each facility.

Amendment 66 dated March 24, 1983, for Oyster Creek deleted from the ETS the non-radiological requirements related to the following: LCOs; thermal plume analysis; hydrographic analysis; and ecological studies. Amendment 83 dated May 30, 1985, changed the location of three woodborer exposure panels.

The EA updated the status of station-related environmental impacts, and placed reliance on the State of New Jersey under authority of the Clean Water Act, for assessment of operational impacts and for any monitoring requirements or mitigation for protection of the aquatic environment, should they be necessary. In this regard, the State of New Jersey is conducting its review of impacts under Section 316(a) and (b) of the Clean Water Act and is in the process of reissuing the NJPDES permit for Oyster Creek that will contain operational requirements for protection of the environment.

The staff met with the State of New Jersey on October 24, 1985, and informed the State of the following: the existing Oyster Creek Provisional Operating License (POL) to Full Term Operating License (FTOL) conversion; the EA process; and the staff's intent to eliminate all non-radiological monitoring requirements from the ETS and rely on the NJPDES permit. The meeting summary is dated November 15, 1985. The State was officially notified of these actions with the issuance of the EA.

NRC, therefore, has exercised its responsibility under the National Environmental Protection Act (NEPA), and in accordance with current practice, the licensee's request to delete definitions and aquatic monitoring requirements from the ETS is acceptable. The proposed ETS format and the inclusion of fish kill/station shutdown monitoring; however, are not in conformance with the current practice. This practice is to include an EPP as the ETS to the license. The EPP is a performance document and contains no monitoring requirements for matters under the jurisdiction of the NPDES permitting authority (here, the State of New Jersey). To aid in this transition, a draft EPP has been written specifically for Oyster Creek and is attached. Fish kills related to winter station shutdowns are included as examples of potential "unusual or important events" in EPP Section 4.1, as are events related to woodboring organisms.

In summary, the TSCR to delete definitions, to delete or revise certain non-radiological monitoring programs and to revise the Administrative Controls is acceptable because it conforms with current NRC practice of relying on the NPDES permit (issued here by the State of New Jersey, under authority of the Clean Water Act) for protection of the aquatic

environment. It is NRC practice to remove all non-radiological monitoring from the ETS and to modify the ETS to conform with the EPP format as the Appendix B to the facility operating license. The licensee will be requested to propose the following: (1) delete the fish kill monitoring from Section 1.1 of the ETS, and (2) have the ETS conform with the attached EPP format.

4.0 ENVIRONMENTAL CONSIDERATION

4.1 Deletion of Monitoring Programs

This amendment deletes the following environmental monitoring programs from the Appendix B TS at Oyster Creek: (1) impingement of organisms and (2) woodborers. These were required because of the inadequacies and speculative nature of the analyses of the impacts of impingement and woodborers in the FES. This has been addressed in the staff's EA dated April 10, 1986. In the EA, the staff concluded that the licensee's impingement studies since 1974 have substantiated the FES predictions of impingement losses and the FES conclusions remain valid. The FES conclusion was that the impact of this loss is significant. Therefore, the staff concludes that the further study of the impingement of organisms is not needed and it is acceptable to delete this requirement from the Appendix B TS.

In the EA, the staff stated that the licensee has conducted studies of cooling system alternatives and mitigative measures to reduce the mortality of impingement and entrainment and the mortality of returning impinged biota to the environment via the effluent discharge canal. Mitigative measures implemented since the FES include: elimination of copper as a corrosion product in the effluent; reduction in the addition of chlorine to the circulating and effluent water; replacement of the conventional traveling screens with bucket screens using a low-pressure screen wash system for removal of biota and reduction of initial impingement mortality; and rerouting of the screen-wash fluent so that impinged biota are returned to ambient water in the discharge canal, for reduction of thermal stress. The overall success in reducing mortalities and mitigating impacts are yet to be quantified. The NRC eliminated most of the monitoring requirements defined by the FES with the approval of Amendment 66 to the Oyster Creek license (effective March 24, 1983) and is eliminating additional monitoring requirements in this action. In so doing, NRC is relying on the State of New Jersey, under the authority of the Clean Water Act, for assessment of operation impacts and for any further requirements for intake-related mitigation, should that be necessary. In this regard, the State is in the process of renewing the NPDES Permit and reviewing the 316(a) and (b) demonstration for Oyster Creek.

The staff also addressed woodborers in its EA. The staff stated that marine borers and foulers have been studied for many years in relation to thermal effluents and habitat conditions in Oyster Creek, Forked River, and Barnegat Bay. Since the publication of the 1974 FES, the licensee has undertaken extensive studies, with comparative across-year summaries. The NRC Office of Nuclear Regulatory Research also sponsored an independent study of borers and foulers during the period September 1976 through December 1982, with a final report published in October 1983.

The staff concluded in the EA that the FES projections on the introduction of shipworms into Forked River have been verified by the studies conducted. Shipworms, especially the non-native species, have spread to Barnegat Bay, but only to those areas of the western bay under the immediate influence of the station thermal effluents. An apparent elimination of non-native species subsequent to a prolonged station outage, and no apparent influence of Oyster Creek on shipworms outside of the thermal plume area, suggest that wide-spread shipworm increase has not occurred as projected by the FES. The NRC sponsored study found that while Oyster Creek 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.

The staff further stated in the EA that the natural introduction of non-native shipworms into the area during the early 1970s (coupled with their enhancement by station 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 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 station 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. Nevertheless, data suggests that the widespread shipworm impact projected by the FES has not occurred and nothing beyond the FES recommendations are warranted. Therefore, the staff concludes that further woodborer study is not needed and it is acceptable to delete this requirement from the Appendix B TS.

4.2 Conclusion

This amendment relates to changes to a license for a reactor pursuant to 10 CFR Part 50 which changes an inspection or surveillance requirement, as well as changes to recordkeeping, reporting, and administrative procedures and requirements and deletion of monitoring requirements

applicable to matters subject to the provisions of the Federal Water Pollution Control Act. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9),(10) and (17). Pursuant to 10 CFR 51.22(b) no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this amendment.

The EA issued April 10, 1986 (51 FR 12754, April 15, 1986) in connection with the FTOL for Oyster Creek also addresses the environmental considerations affected by this amendment.

5.0 CONCLUSION

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

6.0 REFERENCES

1. Letter from P. Fiedler (GPUN) to J. A. Zwolinski (NRC) dated February 3, 1986.
2. Final Environmental Statement (FES) related to the operation of Oyster Creek Nuclear Generating Station dated December 1974.
3. Environmental Assessment (EA) for the Full Term Operating License, issued by the NRC staff and dated April 10, 1986.
4. NRC Atomic Safety and Licensing Appeal Board decision in the Yellow Creek case, ALAB-515, 8 NRC 702, 1978.

Principal Contributor: C. Hickey

Dated: July 17, 1986

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APPENDIX B

TO FACILITY OPERATING LICENSE NO. _____

Oyster Creek Nuclear Generating Station

GPU Nuclear Corporation

DOCKET NO. 50 -219

ENVIRONMENTAL PROTECTION PLAN
(NONRADIOLOGICAL)

Oyster Creek Nuclear Generating Station

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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 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 ^{NJPDES} permit.

2.0 Environmental Protection Issues

In the FES-OL dated December 1974, the staff considered the environmental impacts associated with the operation of the Oyster Creek Nuclear Generating Station (OCNGS). Certain environmental issues were identified which required study or license conditions to resolve and to assure adequate protection of the environment. On April 10, 1986, NRC staff evaluated the effects of continued operation of OCNGS by issuance of an "Environmental Assessment by the Office of Nuclear Reactor Regulation Relating to the Conversion of the Provisional Operating License to a Full-Term Operating License." Several of the environmental issues identified in the 1974 FES-OL were resolved in the 1986 Environmental Assessment. The remaining issues are listed below.

2.1 Aquatic Issues

- (1) The effects of cooling water withdrawal (impingement and entrainment) on aquatic biota of Barnegat Bay; and the overall success of mitigation measures in reducing mortalities and impact.
- (2) The effects of Chlorine (used for biofouling control) on an aquatic biota of Oyster Creek and Barnegat Bay.

2.1 Continued

(3) The effect of thermal discharges on:

- ° the mortality of impinged and entrained organisms returned to the aquatic environment via the discharge canal;
- ° the maintenance of a breeding population of marine wood boring organisms in Oyster Creek; and the licensee's continued assistance to property owners in replacing unprotected wooden structures with properly treated wood.

Aquatic matters are addressed by the effluent limitations and monitoring requirements contained in the effective NJPDES permit issued by the State of New Jersey, and by the determination of the State of New Jersey on the Section 316 (a) & (b) demonstration submitted by the licensee. The NRC will rely on the State for regulation of matters involving water quality and aquatic biota.

2.2 Terrestrial Issues

- (1) Control of erosion and the revegetation of acres of denuded site property.

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 ¹⁹⁷⁴ FES-OL, ^{the 1986 FTOL Environmental Assessment,} 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.

NJPDDES

3.2 Reporting Related to the ~~SPDES~~ Permit and State Certification

NJPDDES

Changes to, or renewals of, the ~~SPDES~~ Permit 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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NJPDES

The licensee shall notify the NRC of changes to the effective ~~of~~ 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 Permit at the same time the application is submitted to the permitting agency.

NJPDES

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.

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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, ^{impingement,} or unusual occurrence of any species protected by the Endangered Species Act of 1973; fish kills; ^{related to effluent discharges or winter shutdowns;} increase in nuisance organisms or conditions; ^{the} unanticipated or emergency discharge of waste water or chemical substances; ~~and damage to vegetation resulting from cooling tower drift deposition~~; ^{and significant events related to marine wood-boring organisms (e.g., destruction of private property, return of exotic species to the site vicinity, spread of organisms to Barnegat Bay beyond the area affected by station discharges).}

④ 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 State of ^{New Jersey} under the authority of the Clean Water Act for any requirements for aquatic monitoring.

4.2.2 Terrestrial Monitoring

No terrestrial monitoring is required.

4.2.3 Noise Monitoring

No noise monitoring is required.

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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 ^{Full Term} 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

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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.