

Public Service
Electric and Gas
Company

Steven E. Miltenberger

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-1100

Vice President and Chief Nuclear Officer

APR 17 1990

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United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

1989 ANNUAL ENVIRONMENTAL OPERATING REPORT
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354

The attached annual environmental operating report is hereby submitted pursuant to Subsection 5.4.1 of the Environmental Protection Plan (Nonradiological) for Hope Creek Generating Station. The Environmental Protection Plan is Appendix B to Facility Operating License NPF-57, (Docket No. 50-354).

If any questions arise concerning this report, please contact Mr. Bruce A. Preston, Manager - Licensing and Regulation at (609) 339-1229.

Sincerely,

S.E. Miltenberger

Attachment

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PDR ADCK 05000354
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C Mr. C. Y. Shiraki
Licensing Project Manager

Mr. T. P. Johnson
Senior Resident Inspector

Mr. T. Martin, Administrator
Region I

Mr. Kent Tosch, Chief
New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625

1989 ANNUAL ENVIRONMENTAL OPERATING REPORT

HOPE CREEK GENERATING STATION
DOCKET No. NPF-57
OPERATING LICENSE No. NPF-57

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
P.O. BOX 236
HANCOCK'S BRIDGE, NEW JERSEY

APRIL 1990

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1.0 INTRODUCTION

This 1989 Annual Environmental Operating Report (AEOR) for the Hope Creek Generating Station was prepared in accordance with Subsection 5.4.1 of Appendix B to Facility Operating License No. NPF-57, Environmental Protection Plan (Nonradiological). The reporting requirements of the Environmental Protection Plan (EPP) became effective April 11, 1986, with the issuance of the initial Hope Creek Operating license, (NPF-57). This is the fourth AEOR submitted for Hope Creek Generating Station. It corresponds to the reporting period January 1, 1989 to December 31, 1989. Hope Creek Generating Station produced 6,606,437 megawatt-hours of net electrical energy during this period.

As required by Subsection 5.4.1 of the EPP, we have included summaries and analyses of the results of all required environmental protection activities. This information is described in Section 2.0. Section 3.0 addresses the issue of EPP compliance. Changes to station design or operation and the involvement of potentially significant unreviewed environmental questions are addressed in Section 4.0. Unusual and/or important environmental events are discussed in section 5.0.

2.0 ENVIRONMENTAL PROTECTION ACTIVITIES

2.1 Aquatic Issues

Subsection 4.2.1 of the EPP references the Clean Water Act as the mechanism for protecting aquatic biota through water quality monitoring. The NRC relies upon the State of New Jersey, acting under the authority of the Clean Water Act, to ensure applicable requirements for aquatic monitoring are implemented.

The State of New Jersey requires as part of their New Jersey Pollutant Discharge Elimination System (NJPDES) permit program that effluent monitoring be performed, with the results summarized and submitted monthly on discharge monitoring report forms (DMR's). The monitoring is intended to determine compliance with permit (NJPDES No. NJ0025411) effluent limitations. We have reviewed the DMR's corresponding to the 1989 AEOR reporting period and have determined that no significant deviations have occurred. We have observed no significant evidence of trends towards irreversible damage to the environment. Copies of DMR's are available upon request.

Pursuant to the New Jersey Administrative Code (N.J.A.C. 7:14A), on June 5, 1989, Public Service Electric and Gas Company submitted an application in support of it's request that the New Jersey Department of Environmental Protection revoke and reissue Hope Creek Generating Station NJPDES Permit No. NJ0025411. PSE&G submitted this application on the basis that the original permit was issued prior to the facility becoming operational. All parameters in the original permit were determined based on engineering design and calculations. Operational experience and data are now available and support the imposition of different permit limitations. To this date, PSE&G has not received a motion of either approval or denial from the New Jersey Department of Environmental Protection concerning this revoke and reissue request.

On September 7, 1989, PSE&G received notice of a minor modification of Hope Creek Generating Station NJPDES/DSW Permit No. NJ0025411. In accordance with N.J.A.C. 7:14A-2.14, the abovementioned NJPDES permit was modified to change the monitoring requirement and effluent limitation for Chemical Oxygen Demand (COD) for specified outfalls to the Total Organic Carbon (TOC) requirements specified for

each outfall in the existing permit as alternate limits. A copy of the NJDEP letter to PSE&G outlining the specifics of this minor permit modification is included as an appendix to this report.

On June 9, 1989, the Stage 3 Treatment Works Approval application for the Sewage Treatment plant was submitted to the NJDEP. Testing has demonstrated the sewage plant is capable of treating wastewater and providing effluent quality well within NJPDES Permit limitations.

A request to revoke and reissue the NJPDES Permit was submitted to the NJDEP on June 5, 1989, a copy of which was submitted to the USNRC. During 1990, we will submit an application for renewal of the existing NJPDES Permit incorporating the new sewage treatment plant.

2.2 Terrestrial Issues

The primary potential effect of station operation on terrestrial resources derives from cooling tower salt drift. Subsection 4.2.2 of the EPP requires that a "Salt Drift Monitoring Program" be implemented to measure drift rate and deposition on native vegetation, and to assess the impacts of cooling tower salt drift on the environment in the Hope Creek Generating Station vicinity.

PSE&G initiated a salt drift monitoring program in August 1984 according to the Nuclear Regulatory Commission approved study plan. The goal of the study program was to collect preoperational and operational data on salt deposition and sodium chloride (NaCl) concentrations in vegetation and soils in the vicinity of Hope Creek Generating Station. A report summarizing the first year of operational data collection was submitted to the NRC as an appendix to the 1987 AEOR. Operational phase data was collected through 1988 and completed in early 1989.

Pursuant to the requirements of Section 4.2.2 of the Environmental Protection Plan of Appendix B to Facility Operating License No. NPF-57, Public Service Electric and Gas submitted a report entitled "Operational Summary Report for Hope Creek Generating Station Salt Drift Monitoring Program, January 1987 to March 1989", to the NRC on October 10, 1989. Additional copies of this report are available upon request.

This report summarized the results of the operational phase monitoring program conducted to determine the potential adverse effects of cooling tower salt drift on vegetation and soils in the vicinity of Hope Creek Generating Station. The report contained separate sections on salt deposition, native vegetation, soil and comparative studies.

The results of the monitoring activities show that only minor, localized effects of cooling tower drift deposition are occurring. Higher deposition rates attributable to the cooling tower were measured at only one location, which is on station property at a distance of 0.4 km. downwind of the cooling tower, and even these highest deposition levels are well below deposition levels that have been reported to cause vegetative damage. Hope Creek Generating Station is surrounded by extensive areas of tidal saltmarsh and the nearest uplands are located nearly three miles to the east, therefore, no significant adverse impacts can occur as a result of cooling tower operation.

As stated in Section 4.2.2 of the Environmental Protection Plan, the Salt Drift Monitoring Program was to continue up to three years from receipt of license, and annual reports were to be submitted to the NRC for review. PSE&G has previously submitted all required annual monitoring reports. The October 10, 1989, submittal of the "Operational Summary Report" demonstrated that the program continued for three years from receipt of license and satisfies the commitments under Section 4.2.2 of the Environmental Protection Plan. Further salt drift monitoring under Section 4.2.2 of the EPP is not required.

No other terrestrial ecology monitoring is required by the EPP and there have been no unreviewed environmental impacts to the terrestrial ecology of the area as a result of facility operation.

3.0 EPP COMPLIANCE STATUS

Subsection 5.4.1 of the EPP requires a list of EPP noncompliances and the corrective actions taken to remedy them. No previously unreviewed environmental impacts attributable to the operation of the Hope Creek Generating Station were observed during 1989. Likewise, there were no instances of noncompliance with the EPP.

4.0 CHANGES IN STATION DESIGN OR OPERATION

Pursuant to the requirements of Section 3.1 of the EPP, station design/operational changes during the time period covered by this report were reviewed for potential environmental impact. None of the recommended changes posed a potential to significantly affect the environment, and therefore, none involved an unreviewed environmental question or a change in the EPP.

5.0 NONROUTINE REPORTS

Subsection 5.4.1 of the EPP requires that a list of all nonroutine reports (submitted in accordance with subsection 5.4.2) be included as part of the Annual Environmental Operating Report. Hope Creek Generating Station experienced no unusual or important events that indicated or could have resulted in "significant environmental impact" during the 1989 reporting period. Consequently, there were no nonroutine reports submitted to the NRC.



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

CN 029

Trenton, N.J. 08625-0029

Jorge H. Berkowitz, Ph.D.
Acting Director

(609) 292-1637
Fax # (609) 984-7938

B.A. Preston, Manager
Licensing and Regulation
Public Service Electric and Gas Company
P.O. Box 236
Hancocks Bridge, New Jersey 08039

Dear Mr. Preston:

Re: Minor Modification - NJPDES/DSW Permit NJ0025411
Hope Creek Generating Station
Lower Alloways Creek Township, Salem County

In accordance with N.J.A.C. 7:14A-2.14, NJPDES/DSW permit NJ0025411 is hereby modified to change the Chemical Oxygen Demand (COD) requirements for the following outfalls to the Total Organic Carbon (TOC) requirements specified for each outfall in the existing permit as alternate limits:

<u>Outfall</u>	<u>Existing COD Limit (mg/l)</u>	<u>Alternate TOC Limit (mg/l)</u>	<u>Permit Page</u>
DSN 461A	50	20	Part III-1 and 2
DSN 461C	100	50	Part III-3
DSN 462A	100	50	Part III-4
DSN 463A	100	50	Part III-4
DSN 464	100	50	Part III-4

Therefore, the enclosed permit pages 1 through 4 of Part III replace pages 1 through 4 of Part III of the NJPDES/DSW permit issued for the Hope Creek Generating Station on August 8, 1985.

Should you have any questions regarding this modification, please contact Melisse Wilusz of my staff at (609) 292-4860.

Sincerely,

Robert Oberthaler, Chief
Bureau of Industrial Discharge Permits

WFM70:CDG
Enclosure
c: Final Permit Distribution List