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**2004 ANNUAL ENVIRONMENTAL OPERATING REPORT  
HOPE CREEK GENERATING STATION  
FACILITY OPERATING LICENSE NO. NPF-57  
DOCKET NO. 50-354**

The attached 2004 Annual Environmental Operating Report is hereby submitted pursuant to Subsection 5.4.1 of the Environmental Protection Plan (Non-radiological) for Hope Creek Generating Station. The Environmental Protection Plan is Appendix B to Facility Operating License NPF-57 (Docket No. 50-354).

Sincerely,

A handwritten signature in black ink, appearing to read "Christina L. Perino", written in a cursive style.

Christina L. Perino  
Director – Regulatory Assurance

/dkh  
Attachment (1)

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**2004 ANNUAL ENVIRONMENTAL OPERATING REPORT  
(NON-RADIOLOGICAL)  
January 1 through December 31, 2004**

**HOPE CREEK GENERATING STATION  
DOCKET NO. 50-354  
OPERATING LICENSE NO. NPF-57**

**PSEG NUCLEAR LLC  
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**APRIL 2005**

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## 1.0 INTRODUCTION

This 2004 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 (Non-radiological). 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 19<sup>th</sup> AEOR submitted for Hope Creek Generating Station. It corresponds to the reporting period January 1, 2004 to December 31, 2004. Hope Creek Generating Station produced 6,048,866 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 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 review for potentially significant unreviewed environmental questions are addressed in Section 4.0. Administrative review procedures and 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 United States Nuclear Regulatory Commission (USNRC) relies upon the State of New Jersey, acting under the authority of the Clean Water Act, to insure applicable requirements for aquatic monitoring are implemented. The New Jersey Department of Environmental Protection (NJDEP) is the state's regulatory agency.

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 (DMR) forms. The monitoring is intended to determine compliance with permit (NJPDES No. NJ0025411) effluent limitations. We have reviewed the DMR's corresponding to the 2004 AEOR reporting period and have determined that no significant deviations have occurred. Copies of monthly DMR's are routinely sent to USNRC's Document Control Desk and additional copies are available upon request.

On December 31, 2002, the New Jersey Department of Environmental Protection (NJDEP) issued a Final New Jersey Pollutant Discharge Elimination System (NJPDES) Permit that authorizes the continued discharge of cooling tower blowdown and other effluents from the Hope Creek Generating Station to the Delaware River. The Permit was effective on March 1, 2003 and contains conditions and limitations for continued compliance with the federal and state Clean Water Act (CWA) and the NJDEP's regulations. On January 31, 2005 the NJDEP issued a major modification to the NJPDES permit to correct technical errors contained in the original Permit. The NJPDES Permit retains substantially similar effluent limitations and conditions, including chemical-specific requirements and system operational requirements.

While the NRC relies on the State of New Jersey for protection of the water quality, the National Marine Fisheries Service (NMFS) maintains regulatory authority with respect to certain migratory threatened and endangered aquatic species. On May 15, 1993 the NMFS issued a revised Section 7 Consultation, Biological Opinion. The revision removed all requirements for marine life monitoring at the Hope Creek Generating Station. This revision was incorporated into the Facility Operating License No. NPF-57 through Amendment No. 60.

## 2.2 TERRESTRIAL ISSUES

PSEG NUCLEAR LLC has been voluntarily monitoring the osprey population that nest on our transmission towers through a joint effort with the NJDEP since 1989.

### 3.0 EPP COMPLIANCE STATUS

#### 3.1 EPP NONCOMPLIANCES

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 2004. Likewise, there were no instances of noncompliance with the EPP.

#### 3.2 REVIEW

Subsection 5.1 of the EPP for Hope Creek Generating Station requires that an independent review of compliance with the EPP be maintained and made available for inspection. Compliance with the EPP was reviewed as part of the QA Assessment Program in 2003.

### 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 nonroutine reports submitted to the NRC during 2004 be included with this report. No environmentally related nonroutine reports were submitted to the USNRC in 2004.

Hope Creek Generating Station experienced no unusual or important events that indicated or could have resulted in a "significant environmental impact" during the 2004 reporting period.