

## UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 2, 2005

Mr. William Levis Senior Vice President and Chief Nuclear Officer PSEG Nuclear LLC - N09 P. O. Box 236 Hancocks Bridge, NJ 08038

SUBJECT: ANNUAL ASSESSMENT LETTER - HOPE CREEK NUCLEAR GENERATING

STATION (REPORT 05000354/2005001)

Dear Mr. Levis:

On February 7, 2005, the NRC staff completed its end-of-cycle plant performance assessment of the Hope Creek Nuclear Generating Station. The end-of-cycle review for Hope Creek involved the participation of the reactor technical divisions in evaluating performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2004. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities.

This performance review and enclosed inspection plan do not include physical protection information. A separate end-of-cycle performance review letter, designated and marked as "Exempt from Public Disclosure in accordance with 10 CFR 2.390," will include the physical protection review and resultant inspection plan.

Overall, Hope Creek operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, was within the Regulatory Response Column of the NRC's Action Matrix, based on two inspection findings being classified as having low to moderate safety significance (White) and all PIs indicating performance at a level requiring no additional NRC oversight (Green).

In the first quarter of 2004, the NRC staff identified a White inspection finding in the Mitigating Systems Cornerstone involving inadequate maintenance on a service water traveling screen that had resulted in its failure and unavailability of the associated service water pump train. The staff subsequently completed a supplemental inspection in response to this inspection finding and concluded that your corrective actions appeared appropriate.

In the fourth quarter of 2004, the NRC staff identified a White inspection finding in the Initiating Events Cornerstone involving inadequate evaluation and corrective action for a degraded level control valve for a moisture separator drain tank which resulted in a pipe failure in a moisture separator drain line in October 2004. As a result of this finding, we plan to conduct a

supplemental inspection in accordance with Inspection Procedure 95001. This supplemental inspection procedure is conducted to provide assurance that the causes and contributing causes of risk significant performance issues are understood, the extent of condition is identified, and the corrective actions are sufficient to prevent recurrence. Please inform Mr. Eugene Cobey of my staff of your schedule for completing any evaluations of the issues that led to this White inspection finding. We will use this information to schedule our supplemental inspection at an appropriate time mutually convenient to both parties.

The NRC's last four assessment letters [dated March 3, 2003, August 27, 2003, March 3, 2004, and August 30, 2004; ADAMS Refs. ML030620772, ML032390424, ML040630856, and ML042440233] documented a substantive cross-cutting issue in the area of problem identification and resolution (PI&R). During this assessment period, there were 13 inspection findings that were attributable, at least in part, to weaknesses in problem identification, problem evaluation and effectiveness of corrective actions. A few examples included PSEG personnel not identifying a degraded condition with a service water pump which ultimately led to the unavailability of the pump and an unplanned power transient; inadequacies in the evaluation and corrective action for a degraded level control valve for a moisture separator drain tank which resulted in the aforementioned pipe failure in the moisture separator drain line; and inadequate corrective action for a degraded service water strainer which resulted in the unavailability of a service water pump train. Based on these findings, the staff continues the substantive cross-cutting issue in the area of PI&R.

In addition, as discussed in the mid-cycle assessment letter dated August 30, 2004 [ADAMS Ref. ML042440233], the staff documented a substantive cross-cutting issue in the area of safety conscious work environment (SCWE) based on the results of the NRC's review of the work environment. The NRC conducted several management meetings with PSEG throughout the year to further monitor and evaluate the state of the work environment at the station. While we recognize that PSEG has taken significant steps to evaluate the station's work environment and initiated actions to begin addressing deep-seated causes, it is too early to effectively assess whether or not the work environment at the station is significantly improving. As a result, the staff determined that the SCWE cross-cutting issue will continue, and the NRC will continue to monitor your progress.

The NRC plans to conduct Reactor Oversight Process baseline inspections at Hope Creek, and these inspections will include a focus on PSEG's implementation of the vibration monitoring program for the 'B' reactor recirculation pump. Further, in order to provide an appropriate level of NRC oversight for Hope Creek, in view of the substantive cross-cutting issue in SCWE and the longstanding cross-cutting issue in Pl&R, the NRC's Executive Director for Operations (EDO) approved a deviation from the NRC's Action Matrix on August 23, 2004 [ADAMS Ref. ML042290139]. This deviation authorized the staff to provide a greater level of oversight for the Hope Creek station than would typically be called for by the Regulatory Response Column of the Action Matrix including: (1) conduct of periodic management meetings and site visits; (2) elevation of the level of NRC management involvement in meetings, site visits, and correspondence; (3) establishment of an internal NRC coordination team, involving regional and headquarters experts in reactor oversight, SCWE and related performance attributes, to coordinate NRC review efforts and assist in evaluation of licensee self-assessment efforts; (4) review of PSEG's detailed improvement plans to identify SCWE and related performance attributes for further NRC inspection; and (5) enhancement of existing baseline inspections by

adjusting inspection scope, as necessary, to verify the effectiveness of licensee improvement efforts in these areas. The enhanced regulatory oversight established by the deviation memorandum will be used to monitor your progress in addressing the PI&R and SCWE crosscutting issues. The NRC plans to continue with this heightened oversight until PSEG has concluded that substantial, sustainable progress has been made; and the NRC has completed a review, the results of which confirm PSEG's assessment results.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through September 30, 2006. In addition to the baseline inspection activities specified by the Reactor Oversight Process, the enclosed plan includes augmentation of existing inspections per the deviation memorandum and additional inspections of the employee concerns program and SCWE improvement initiatives. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review meeting.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Mr. Eugene Cobey at 610-337-5171 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Samuel J. Collins Regional Administrator

Docket Nos. 50-354 License Nos. NPF-57

Enclosure: Hope Creek Inspection/ Activity Plan

## cc w/encl:

- G. Barnes, Site Vice President Hope Creek
- M. Brothers, Vice President, Nuclear Assessment
- M. Gallagher, Vice President, Engineering and Technical Support
- W. F. Sperry, Director, Finance
- C. Perino, Director, Regulatory Assurance
- M. Massaro, Hope Creek Plant Manager
- R. Kankus. Joint Owner Affairs
- J. J. Keenan, Esquire
- M. Wetterhahn, Esquire

Consumer Advocate, Office of Consumer Advocate

- F. Pompper, Chief of Police and Emergency Management Coordinator
- J. Lipoti, Ph.D., Assistant Director of Radiation Programs, State of New Jersey
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- H. Otto, Ph.D., DNREC Division of Water Resources, State of Delaware
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DRS Branch Chiefs, Region I (5)

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Region I Docket Room (with concurrences)

DOCUMENT NAME: S:\ROP5 End of Cycle Review\Branch 3\HC ROP5 Annual Assessment Ltr FINAL.wpd

SISP Review Complete: \_\_\_\_EWC\_\_\_\_ (Reviewer's Initials)

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NAME	SBarber/ <b>SB</b>	ECobey/ <b>EWC</b>	ECobey/ <b>EWC</b>		ABlough/ <b>ARB</b>	
DATE	02/25/05	02/25/05		03/01/05		

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## Hope Creek Inspection / Activity Plan 03/01/2005 - 09/30/2006

Unit No. of Staff **Planned Dates** Inspection Number Inspection Activity Title on Site Start End Type 71114 EP PROGRAM INSP & PI VERIFICATION 1 1 IP 7111402 Alert and Notification System Testing 04/03/2005 04/07/2005 **Baseline Inspections** IP 7111403 04/03/2005 04/07/2005 **Emergency Response Organization Augmentation Testing Baseline Inspections** IP 7111404 Emergency Action Level and Emergency Plan Changes 04/03/2005 04/07/2005 **Baseline Inspections** 04/07/2005 Correction of Emergency Preparedness Weaknesses and Deficiencies IP 7111405 04/03/2005 **Baseline Inspections** IP 71151 Performance Indicator Verification 04/03/2005 04/07/2005 **Baseline Inspections** 71121 - OCC RAD SAFETY 1 IP 7112101 Access Control to Radiologically Significant Areas 05/09/2005 05/13/2005 **Baseline Inspections** IP 7112102 **ALARA Planning and Controls** 05/09/2005 05/13/2005 **Baseline Inspections** IP 7112103 Radiation Monitoring Instrumentation and Protective Equipment 05/13/2005 05/09/2005 Baseline Inspections **ECP**  EMPLOYEE CONCERNS PROGRAM 2 IP 40001 1 Resolution Of Employee Concerns 05/16/2005 05/20/2005 Other Routine 11/14EXM - OPERATOR LICENSING INITIAL EXAMS 4 U01586 HOPE CREEK INITIAL EXAM (1/06) 10/17/2005 10/21/2005 Not Applicable 1 U01586 HOPE CREEK INITIAL EXAM (1/06) 11/14/2005 11/18/2005 Not Applicable 7112203 - PUB RAD SAFETY - REMP 1 IP 7112203 Radiological Environmental Monitoring Program 06/20/2005 06/24/2005 Baseline Inspections SCWE SCWE TEAM INSPECTION 5 IP 71152 Identification and Resolution of Problems 06/24/2005 Baseline Inspections 1 06/20/2005 71121 OCC RAD SAFETY 1 IP 7112101 Access Control to Radiologically Significant Areas 08/15/2005 08/19/2005 **Baseline Inspections** IP 7112102 **ALARA Planning and Controls** 08/15/2005 08/19/2005 **Baseline Inspections** IP 7112103 Radiation Monitoring Instrumentation and Protective Equipment 08/19/2005 08/15/2005 **Baseline Inspections** 7112201 - PUB RAD SAFETY - RETS 1 IP 7112201 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems 09/30/2005 09/26/2005 **Baseline Inspections** 71152B - PI&R 4 12/02/2005 IP 71152B Identification and Resolution of Problems 11/28/2005 **Baseline Inspections** 1 IP 71152B Identification and Resolution of Problems 12/12/2005 12/16/2005 Baseline Inspections 1 7112202 - PUB RAD SAFETY - RADWASTE IP 7112202 Radioactive Material Processing and Transportation 12/05/2005 12/16/2005 **Baseline Inspections** IP 71151 Performance Indicator Verification 12/16/2005 12/05/2005 **Baseline Inspections** 7111112B - MAINTENANCE RULE 1 1 IP 7111112B Maintenance Effectiveness 01/09/2006 01/13/2006 **Baseline Inspections** 7111107B - HEAT SINK 2 IP 7111107B Heat Sink Performance 02/27/2006 03/03/2006 Baseline Inspections 1

This report does not include INPO and OUTAGE activities.

This report shows only on-site and announced inspection procedures.

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## Hope Creek Inspection / Activity Plan 03/01/2005 - 09/30/2006

Unit			No. of Staff			Inspection		
Number	Inspection Activity	Title	on Site	Start	End	Туре		
71114 - EXERCISE & EP PI VERIFICATION 1								
1	IP 7111401	Exercise Evaluation		03/20/2006	03/24/2006	Baseline Inspections		
1	IP 71151	Performance Indicator Verification		03/20/2006	03/24/2006	Baseline Inspections		
	7111108G - INSER	RVICE INSPECTION	1					
1	IP 7111108G	Inservice Inspection Activities - BWR		04/10/2006	04/14/2006	Baseline Inspections		
	71121 - OCC F	RAD SAFETY	1					
1	IP 7112101	Access Control to Radiologically Significant Areas		04/17/2006	04/21/2006	Baseline Inspections		
1	IP 7112102	ALARA Planning and Controls		04/17/2006	04/21/2006	Baseline Inspections		
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		04/17/2006	04/21/2006	Baseline Inspections		
	SSDI - SSDI		6					
1	IP 7111121	Safety System Design and Performance Capability		07/10/2006	07/14/2006	Baseline Inspections		
	71121 - OCC F	RAD SAFETY	1					
1	IP 7112101	Access Control to Radiologically Significant Areas		07/17/2006	07/21/2006	Baseline Inspections		
1	IP 7112102	ALARA Planning and Controls		07/17/2006	07/21/2006	Baseline Inspections		
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		07/17/2006	07/21/2006	Baseline Inspections		
	SSDI - SSDI		6					
1	IP 7111121	Safety System Design and Performance Capability		07/24/2006	07/28/2006	Baseline Inspections		
	7112201 - PUB R	RAD SAFETY - RETS	1					
1	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		08/28/2006	09/01/2006	Baseline Inspections		
	7111111B - LICEN	ISED OPERATOR REQUL PROGRAM	2					
1	IP 7111111B	Licensed Operator Requalification Program		08/28/2006	09/01/2006	Baseline Inspections		
1	IP 7111111B	Licensed Operator Requalification Program		09/04/2006	09/08/2006	Baseline Inspections		
	71121 - OCC RAD SAFETY							
1	IP 7112101	Access Control to Radiologically Significant Areas		09/25/2006	09/29/2006	Baseline Inspections		
1	IP 7112102	ALARA Planning and Controls		09/25/2006	09/29/2006	Baseline Inspections		
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		09/25/2006	09/29/2006	Baseline Inspections		
1	IP 71151	Performance Indicator Verification		09/25/2006	09/29/2006	Baseline Inspections		