UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE RD, STE 102
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

May 8, 2024

Charles McFeaters
President and Chief Nuclear Officer
PSEG Nuclear, LLC - N09
P.O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION – INTEGRATED INSPECTION REPORT 05000354/2024001

Dear Charles McFeaters:

On March 31, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Hope Creek Generating Station. On April 17, 2024, the NRC inspectors discussed the results of this inspection with Robert McLaughlin, Plant Manager, and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* (CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

BRICE BICKETT

Digitally signed by BRICE BICKETT
Date: 2024.05.08 14:28:41 -04'00'

Brice A. Bickett, Chief
Projects Branch 3
Division of Operating Reactor Safety

Docket No. 05000354
License No. NPF-57

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: HOPE CREEK GENERATING STATION – INTEGRATED INSPECTION REPORT 05000354/2024001 DATED MAY 8, 2024

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000354
License Number:	NPF-57
Report Number:	05000354/2024001
Enterprise Identifier:	I-2024-001-0038
Licensee:	PSEG Nuclear, LLC - N09
Facility:	Hope Creek Generating Station
Location:	Hancocks Bridge, NJ
Inspection Dates:	January 01, 2024 to March 31, 2024
Inspectors:	C. Dukehart, Senior Resident Inspector J. Patel, Senior Resident Inspector J. Bresson, Resident Inspector N. Floyd, Senior Reactor Inspector
Approved By:	Brice A. Bickett, Chief Projects Branch 3 Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Hope Creek Generating Station, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to https://www.nrc.gov/reactors/operating/oversight.html for more information.

List of Findings and Violations

No findings or violations of more than minor significance were identified.

Additional Tracking Items

None.

PLANT STATUS

The Hope Creek Generating Station (Hope Creek) began the inspection period at rated thermal power. On January 1, 2024, Hope Creek reduced power to 90 percent to close the #4 turbine control valve and isolate an electrohydraulic control (EHC) fluid leak at the valve. On January 9, 2024, the operators shutdown the unit to commence a maintenance outage to repair the EHC lines to the #4 turbine control valve. On January 12, 2024, the unit was returned to rated thermal power. On January 19, 2024, Hope Creek reduced power to 85 percent for a control rod pattern adjustment and returned to rated thermal power on January 20, 2024. On February 20, 2024, Hope Creek began an end-of-cycle coast down and ended the inspection period at 85 percent.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, “Light-Water Reactor Inspection Program - Operations Phase.” The inspectors performed activities described in IMC 2515, Appendix D, “Plant Status,” observed risk significant activities, and completed on-site portions of IPs. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Impending Severe Weather Sample (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated the licensee's readiness for forecasted high wind conditions on January 9, 2024.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (1 Sample)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

(1) Standby liquid control, February 13, 2024

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

(1) Filtration, recirculation, and ventilation system rooms, FP-HC-3462, January 30, 2024
(2) Diesel generator rooms, FP-HC-3531, February 21, 2024
(3) Control rod drive pumps and motor control center areas, FP-HC-3421, March 14, 2024
(4) Cable spreading room, FP-HC-3522, March 28, 2024

Fire Brigade Drill Performance Sample (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated the onsite fire brigade training and performance during an unannounced fire drill for a fire on the 00-K-107 service air compressor on March 4, 2024.

71111.06 - Flood Protection Measures

Flooding Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated internal flooding mitigation protections in the service water intake structure on March 7, 2024.

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

(1) The inspectors observed and evaluated licensed operator performance in the main control room during a plant shutdown and start up for a maintenance outage on January 10, 2024.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

(1) The inspectors observed and evaluated a simulator scenario that included an out-of-the-box training exercise on February 6, 2024.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

(1) Emergency diesel generators (EDG) during 'B' EDG maintenance window, February 14, 2024
(2) Drywell atmosphere gaseous radioactivity monitoring system, March 15, 2024

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

(1) Emergent risk during repair of EHC system, week of January 8, 2024
(2) Emergent risk during half trip condition of digital EHC, week of January 12, 2024
(3) Main generator autovoltage regulator computer data collection with risk of turbine trip, March 25, 2024

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (4 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

(1) EHC leak on #4 turbine control valve, January 15, 2024
(2) 'C' EDG output breaker trip during kilovolt ampere reactive testing, January 22, 2024
(3) High pressure coolant injection steam leak-by on F001, turbine steam supply valve, March 11, 2024
(4) 'D' EDG recirculation fan trip, March 18, 2024

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

(1) Design Equivalent Change Package 80135795 for the use of a coupling in the place of weld in the EHC system, January 9, 2024

71111.24 - Testing and Maintenance of Equipment Important to Risk

The inspectors evaluated the following testing and maintenance activities to verify system operability and/or functionality:

Post-Maintenance Testing (PMT) (IP Section 03.01) (6 Samples)

(1) #4 turbine control valve EHC pipe repair, January 10, 2024
(2) 'C' EDG over excitation relay replacement, January 24, 2024
(3) 'B' train of the filtration, recirculation, and ventilation system following damper maintenance, March 13, 2024
(4) 'D' EDG test following relay maintenance, March 18, 2024
(5) 'B' reactor auxiliaries cooling system pump impeller replacement, March 19, 2024
(6) 'C' core spray pump motor maintenance, March 27, 2024

Surveillance Testing (IP Section 03.01) (3 Samples)

(1) HC.OP-ST.KJ-0002, "Emergency Diesel Generator 1BG400 Operability Test," February 16, 2024
(2) HC.OP-IS.BJ-0001, "High Pressure Coolant Injection Main and Booster Pump Set Comprehensive Inservice Test," March 6, 2024
(3) HC.OP-ST.BC-0007, "Low Pressure Coolant Injection Subsystem 'D' Emergency Core Cooling System Time Response Functional Test," March 20, 2024

Inservice Testing (IST) (IP Section 03.01) (1 Sample)

(1) HC.OP-IS.BD-0001, "Reactor Core Isolation Cooling Pump Inservice Test," February 20, 2024

71114.06 - Drill Evaluation

Additional Drill and/or Training Evolution (1 Sample)

The inspectors evaluated:

(1) The inspectors evaluated a tabletop training evolution for the emergency response organization, with associated hostile action-based emergency preparedness drill, and exercise performance criteria on February 28, 2024.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

(1) January 1, 2023 through December 31, 2023

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (1 Sample)

(1) January 1, 2023 through December 31, 2023

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (1 Sample)

(1) January 1, 2023 through December 31, 2023

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On April 17, 2024, the inspectors presented the integrated inspection results to Robert McLaughlin, Plant Manager, and other members of the licensee staff.