PSEG Nuclear LLC
P.O. Box 236, Hancocks Bridge, New Jersey 08038-0236

PSEG
Nuclear LLC

LR-N19-0095 10CFR50.73

OCT 0 2 2019

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-001

Hope Creek Generating Station
Renewed Facility Operating License No. NPF-57
Docket No. 50-354

Subject: Licensee Event Report 2019-001-00,
Manual Scram and Manual Actuation of Reactor Core Isolation Cooling

In accordance with 10 CFR 50.73(a)(2)(iv)(A), PSEG Nuclear LLC is submitting Licensee Event Report (LER) Number 2019-001-00, "Manual Scram and Manual Actuation of Reactor Core Isolation Cooling."

If you have any questions or require additional information, please contact Mr. Francis D. Possessky at (856) 339-1160.

There are no regulatory commitments contained in this letter.

Sincerely,

Steven R. Poorman
Plant Manager
Hope Creek Generating Station

Attachment: Licensee Event Report 2019-001-00

cc: Regional Administrator – Region I, NRC
US NRC NRR Project Manager – Hope Creek
US NRC Senior Resident Inspector – Hope Creek
NJ Department of Environmental Protection, Bureau of Nuclear Engineering
Commitment Coordinator, Hope Creek Generating Station
Corporate Commitment Coordinator, PSEG Nuclear LLC

NRC FORM 366 (04-2018) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 03/31/2020

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Hope Creek Generating Station	05000354	1 OF 3

4. TITLE

Manual Scram and Manual Actuation of Reactor Core Isolation Cooling

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
08	03	2019	2019	- 001	- 00	10	02	2019		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☑ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
10. POWER LEVEL	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
037	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(C)	☐ 73.77(a)(1)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(D)	☐ 73.77(a)(2)(i)
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(ii)
		☐ 50.73(a)(2)(i)(C)	☐ OTHER Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT	TELEPHONE NUMBER *(Include Area Code)*
Francis D. Possessky	856 – 339 – 1160

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
X	KE	ISV	B040	Y	X	JB	LCV	F130	Y

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE) ☑ NO				

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

At 1906 EDT on August 3 2019, while in OPCON 1 at 93.8 percent power, operators identified degrading main condenser vacuum and commenced reducing power. Degrading vacuum was due to the circulating water cooling tower bypass valve failing open. At 1947, the reactor was manually scrammed from 37 percent due to loss of condenser vacuum. Reactor feedwater pumps (RFP) tripped when reactor pressure vessel (RPV) water level rose to level 8 (+54 inches) because the reactor feedwater startup level control valve (SULCV) failed open. Operators initiated the reactor core isolation cooling (RCIC) system, recovered a RFP and secured RCIC after establishing control of RPV water level. The failed equipment was replaced.

This event is reportable per 10 CFR 50.73(a)(2)(iv)(A).

1. FACILITY NAME	2. DOCKET	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
Hope Creek Generating Station	05000354	2019	- 001	- 00

NARRATIVE

PLANT AND SYSTEM IDENTIFICATION

General Electric – Boiling Water Reactor (BWR/4)
Feedwater System (SJ) – EIIS identifier {SJ}*
Feedwater/Steam Generator Water Level Control System (JB) – EIIS identifier {JB}*
Heat Rejection System (KE) – EIIS identifier {KE}*
Reactor Protection (JC) – EIIS Identifier {JC}*
Reactor Core Isolation Cooling (BN) – EIIS Identifier {BN}*
*Energy Industry Identification System {EIIS} codes and component function identifier codes appear as {SS/CCC}

IDENTIFICATION OF OCCURRENCE

Event Dates: August 03, 2019
Discovery Dates: August 03, 2019

CONDITIONS PRIOR TO OCCURRENCE

Hope Creek was in Operational Condition (OPCON) 1 – Power Operation, 37 percent power.

DESCRIPTION OF OCCURRENCE

At 1906 EDT on August 3, 2019, while in OPCON 1 at 93.8 percent power, operators identified degrading main condenser vacuum and commenced reducing power. Degrading vacuum was due to the circulating water {KE} cooling tower bypass valve failing open. At 1947, the reactor was manually scrammed from 37 percent due to loss of condenser vacuum. Reactor feedwater {SJ} pumps (RFP) tripped when reactor pressure vessel (RPV) water level rose to level 8 (+54 inches) because the reactor feedwater startup level control valve (SULCV){JB} failed open. Operators initiated the reactor core isolation cooling (RCIC){BN} system, recovered a RFP and secured RCIC after establishing control of RPV water level. The failed equipment was replaced.

This event is reportable per 10 CFR 50.73(a)(2)(iv)(A).

CAUSE OF EVENT

A Bailey solid-state logic module failure caused the cooling tower bypass valve to open; which led to loss of main condenser vacuum. A pneumatic relay failure caused the SULCV to fail open.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no safety consequences as a result of this event. The Reactor Protection System {JC} system operated as designed to shut down the reactor. The RCIC system operated as designed to inject water into the reactor core.

PREVIOUS EVENTS

A review of station Licensee Event Reports and the corrective action program for the past three years was performed. No LERs were identified and no issues were documented in the corrective action program for similar conditions.

LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

(See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/)

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NARRATIVE

CORRECTIVE ACTIONS

The Bailey solid-state logic module for the cooling tower bypass valve was replaced and guidance was issued to tag the cooling tower bypass valve closed to prevent spurious opening when not needed. The SULCV pneumatic relay was replaced.

COMMITMENTS

This LER contains no regulatory commitments.