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

PSEG
Nuclear LLC

MAY 1 4 2012

LR-N12-0150 10CFR50.73

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

Hope Creek Generating Station Unit 1
Facility Operating License No. NPF-57
Docket No. 50-354

Subject: Licensee Event Report 2012-003

In accordance with 10 CFR 50.73(a)(2)(i)(B), PSEG Nuclear LLC is submitting Licensee Event Report (LER) Number 2012-003.

Should you have any questions concerning this letter, please contact Mr. Paul Bonnett at (856) 339-1923.

No regulatory commitments are contained in the LER.

Sincerely,

David P. Lewis
Plant Manager
Hope Creek Generating Station

Attachment: Licensee Event Report 2012-003

JE22
NRR

cc: Mr. W. Dean, Regional Administrator – Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. J. Hughey, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
Mail Stop O8 B1A
11555 Rockville Pike
Rockville, MD 20852

USNRC Senior Resident Inspector – Hope Creek (X24)

P. Mulligan, Manager
Bureau of Nuclear Engineering\
New Jersey Department of Environmental Protection
PO Box 420
Trenton, NJ 08625

Hope Creek Commitment Tracking Coordinator (H02)

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

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 Records and FOIA/Privacy Service Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 reverse for required number of digits/characters for each block)

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

4. TITLE
Operation with the Potential to Drain the Reactor Vessel

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
									N/A	
04	22	2012	2012	- 003 -	000	05	14	2012	FACILITY NAME: N/A	DOCKET NUMBER

9. OPERATING MODE
5

10. POWER LEVEL
000

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☒ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
Paul Bonnett, Sr. Compliance Engineer	856-339-1923

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	AC	RPV		N					

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On April 22, 2012, at 5:30 pm, Hope Creek commenced Operations with the Potential to Drain the Reactor Vessel (OPDRV) for the replacement of Local Power Range Monitor (LPRM) strings without setting secondary containment. This activity is a condition prohibited by Technical Specifications (TS) as defined by 10 CFR 50.73(a)(2)(i)(B). Secondary containment is required by TS 3/4.6.5.1 in Operational Condition *, which is a condition during operations with the potential to drain the reactor vessel. The Required Action for this specification is to suspend OPDRV operations.

The NRC issued Enforcement Guidance Memorandum (EGM) 11-003 on October 4, 2011, to provide guidance on how to disposition boiling water reactor (BWR) licensee noncompliance with TS containment requirements during OPDRV operations. To be eligible for enforcement discretion, Hope Creek was in compliance with the minimum criteria established in the EGM during the replacement of the LPRM strings.

This condition is reportable under 10 CFR 50.73(a)(2)(i)(B) for a condition prohibited by TS.

No similar events were identified.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Hope Creek Generating Station	05000354	2012	- 003 -	000	2 OF 3

NARRATIVE

PLANT AND SYSTEM IDENTIFICATION

General Electric – Boiling Water Reactor (BWR/4)
Reactor Pressure Vessel (AC) – EIIS Identifier {AC/RPV}*

*Energy Industry Identification System {EIIS} codes and component function identifier codes appear as {SS/CCC}

IDENTIFICATION OF OCCURRENCE

Event Date: April 22, 2012
Discovery Date: April 22, 2012

CONDITIONS PRIOR TO OCCURRENCE

Hope Creek was shutdown for Refueling Outage H1R-17 in Operational Condition 5 - Refueling Operations.

DESCRIPTION OF OCCURRENCE

On April 22, 2012, at 5:30 pm, Hope Creek Generating Station commenced an Operation with the Potential to Drain the Reactor Vessel (OPDRV) without setting secondary containment. The OPDRV was the replacement of eight Local Power Range Monitor (LPRM) strings. The OPDRV activity commenced when the Instrument Handling Tool was engaged on the first LPRM string to be removed and continued until the last LPRM string was reinserted into the core and had an acceptable seal as verified by minimal water leakage at the water seal tube drain line. The OPDRV was completed in accordance with procedure OP-HC-108-102, "Management of Operations with the Potential to Drain the Reactor Vessel." The OPDRV was completed and exited at 1:04 p.m., on April 23, 2012. This OPDRV is a condition prohibited by Technical Specifications (TS) as defined by 10 CFR 50.73(a)(2)(i)(B). Secondary containment is required by TS 3/4.6.5.1 in Operational Condition *, which is a condition during operations with the potential to drain the reactor vessel. The Required Action for this specification is to suspend OPDRV operations.

An OPDRV is an activity that could result in the draining or siphoning of the Reactor Pressure Vessel (RPV) {EIIS: AC/RPV} water level below the top of fuel, without crediting the use of mitigating measures to terminate the uncovering of fuel. Based on Technical Specification applicability, an OPDRV is a change to the APPLICABILITY as related to the Limiting Condition for Operation (LCO), and therefore treated much like a mode change.

The U.S. Nuclear Regulatory Commission (NRC) issued Enforcement Guidance Memorandum (EGM) 11-003 on October 4, 2011, to provide guidance on how to disposition boiling water reactor (BWR) licensee noncompliance with TS containment requirements during OPDRV operations. Certain safety systems must be operable during OPDRV activities to mitigate drain down events and to provide protection against untreated fission product release in the event that the RPV water level drops and uncovers irradiated fuel. TS do not define the term OPDRV or identify specific plant actions that constitute OPDRV activities. Because a definition is not provided, the NRC staff expects BWR licensees to use the plain language meaning of the OPDRV wording for determining applicable. This means that any activity that could potentially result in draining or

NARRATIVE

siphoning the RPV water level below the top of the fuel, without taking credit for mitigating measures, would be an OPDRV activity.

In order to utilize the EGM and be eligible for enforcement discretion, the licensee is required to:
(1) adhere to the NRC plain language meaning of OPDRV activities,
(2) meet the requirements which specify the minimum makeup flow rate and water inventory based on OPDRV activities with long drain down times,
(3) ensure that adequate defense in depth is maintained to minimize the potential for the release of fission products by monitoring RPV level to identify the onset of a loss of inventory event, by maintaining the capability to isolate the potential leakage paths, by prohibiting Mode 4 (cold shutdown) OPDRV activities and by prohibiting movement of irradiated fuel, and
(4) ensure that licensees follow all other Mode 5 TS requirements for OPDRV activities.

CAUSE OF EVENT

Outage Management, Operations, and Outage Coordinators responsible for evaluating outage work activities determined that the scheduled replacement of eight LPRM strings without setting secondary containment was within the acceptance criteria of the EGM.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no safety consequences during this OPDRV activity. The OPDRV activity was evaluated and determined the extended time to drain down the RPV to the top of the RPV flange was calculated to be 102.7 hours, which is greater than the 72 hours stated in the EGM. Hope Creek met all EGM criteria to be eligible for enforcement discretion. Irradiated fuel movements were prohibited. The 'C' residual heat removal (RHR) pump was the standby source of makeup designated for this evolution. The contingency plan was to use an incore housing plug to seal the opening (LPRM) should difficulty arise in replacement activities. This plug was staged on the refuel bridge with directions for installation. The refuel bridge crew was briefed on its use. Procedure OP-HC-108-102, "Management of Operations with the Potential to Drain the Reactor Vessel" was in use. Secondary containment was not operable, but was able to be made vapor tight within 30 minutes.

A review of this event determined that a Safety System Functional Failure (SSFF) did not occur as defined in Nuclear Energy Institute (NEI) 99-02.

PREVIOUS OCCURRENCES

A review of Licensee Event Reports for the past three years at Hope Creek was performed to determine if a similar event had occurred. No similar events were noted.

CORRECTIVE ACTIONS

None

COMMITMENTS

This LER contains no regulatory commitments.