PSE&G

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038

Hope Creek Generating Station

July 5, 1990

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
UNIT NO. 1
LICENSEE EVENT REPORT 90-009-00

This Licensee Event Report is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(v).

Sincerely,

J.J. Hagan
General Manager -
Hope Creek Operations

RBC/

Attachment
SORC Mtg. 90-062

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LICENSEE EVENT REPORT

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
HOPE CREEK GENERATING STATION	0 5 0 0 0 3 5 4	1 OF 3

TITLE (4): HIGH PRESSURE COOLANT INJECTION SYSTEM DECLARED INOPERABLE BASED ON RESULTS OF OIL SAMPLE ANALYSIS-DESIGN DEFICIENCY IN LUBE OIL RESERVOIR DRAIN ARRANGEMENT

EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	**	NUMBER	REV	MONTH	DAY	YEAR	FACILITY NAME(S)	DOCKET NUMBER(S)
0 6	0 7	9 0	9 0	-	0 0 9	- 0 0	0 7	0 5	9 0		

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR: (CHECK ONE OR MORE BELOW) (11)									
POWER LEVEL	1 0 0		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)		
\\\\\\\\\\\\\\\\			20.405(a)(1)(i)		50.36(c)(1)	XX	50.73(a)(2)(v)		73.71(c)		
\\\\\\\\\\\\\\\\			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text)		
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)				
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)				
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)				

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Richard Cowles, Senior Staff Engineer - Technical	6 0 9 3 3 9 3 4 3 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE NOTED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS?	\\\\\\\	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS?
					\\\\\\\					
					\\\\\\\					

SUPPLEMENTAL REPORT EXPECTED? (14)	YES	NO XX	DATE EXPECTED (15)	MONTH	DAY	YEAR	\\\\\\\\\\\\\\\\
							\\\\\\\\\\\\\\\\

ABSTRACT (16)

On 6/7/90 at 1016, the System Engineer responsible for the High Pressure Coolant Injection (HPCI) system reported to the Senior Nuclear Shift Supervisor (SNSS, SRO licensed) that HPCI oil samples indicated high water content and traces of sediment contamination. The SNSS declared the HPCI system inoperable, and a work request was initiated to clean the HPCI turbine lube oil reservoir and change out the HPCI turbine lube oil. The primary cause of the oil contamination is a design deficiency in the HPCI turbine lube oil reservoir that does not allow for complete draining of reservoir during oil changes. The reservoir is not equipped with a drain line at the low point. As such, it is possible for water and sludge to collect at the low point over time due to condensation in the reservoir as HPCI room temperatures change. Corrective actions included cleaning, flushing, and wipe down of the HPCI turbine lube oil reservoir, resampling the lube oil, and reviewing the HPCI lube oil trending program. Additionally, prior to this occurrence, Systems Engineering had initiated a design change to install a drain line at the low point in the reservoir to facilitate periodic draining of accumulated water and sludge.

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor (BWR/4)
High Pressure Coolant Injection System (EIIS Designation: BJ)

IDENTIFICATION OF OCCURRENCE

High Pressure Coolant Injection System Declared Inoperable Based on Results of Oil Sample Analysis - Design Deficiency in Drain Arrangment of Lube Oil Reservoir

Event Date: 6/7/90
Event Time: 1016
This LER was initiated by Incident Report No. 90-062

CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 1 (Power Operation), Reactor Power 100%, Unit Load 1100MWe.

DESCRIPTION OF OCCURRENCE

On 6/7/90 at 1016, the System Engineer responsible for the High Pressure Coolant Injection (HPCI) system reported to the Senior Nuclear Shift Supervisor (SNSS, SRO licensed) that quarterly HPCI oil sample analysis indicated unacceptable levels of moisture content and traces of sediment contamination. The SNSS declared HPCI inoperable at this time. A work order was initiated to clean the HPCI turbine lube oil reservoir, change the oil, and resample the oil. Additionally, the SNSS initiated a four hour non-emergency report IAW 10CFR50.72 due to declaring HPCI (a single train safety system) inoperable.

Following completion of a system oil changeout and cleaning of the HPCI turbine lube oil reservoir, the HPCI system was declared operable on 6/7/90 at 1811.

APPARENT CAUSE OF OCCURRENCE

The proximate cause of this incident was moisture and entrained sediment in the quarterly HPCI oil sample. The root cause of the unacceptable oil quality is a design deficiency in the HPCI turbine lube oil reservoir that does not allow for complete draining of the reservoir during oil changes. The reservoir is not equipped with a drain at the low point. As such, it is possible for water and sludge to collect at the low point over time due to condensation in the reservoir as HPCI room temperatures change.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION																		
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)												PAGE (3)				
		YEAR	\\	NUMBER			\\	REV										
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PREVIOUS OCCURRENCES

This is the first occurrence, at Hope Creek, of HPCI being declared inoperable due to unacceptable oil sample results.

SAFETY SIGNIFICANCE

During the time that HPCI was inoperable, all other Emergency Core Cooling Systems (Core Spray, Low Pressure Coolant Injection mode of the Residual Heat Removal System, Automatic Depressurization System), as well as the Reactor Core Isolation Cooling system, were operable. Technical Specifications allow continued operation of the reactor for up to 14 days with HPCI inoperable. For this reason, the safety significance of this incident was minimal, and the safe operation of the plant was not compromised.

CORRECTIVE ACTIONS

1. The HPCI turbine lube oil reservoir was cleaned, inspected, and the oil replaced.

2. Samples were drawn of the new lube oil, both from the barrels prior to transfer and after retest run of HPCI. Analysis indicates satisfactory lube oil quality.

3. Prior to this occurrence, Systems Engineering had initiated a design change to install a drain line at the low point in the reservoir to facilitate periodic draining of accumulated water and sludge.

4. Systems Engineering will conduct a review of the HPCI lube oil analysis trending program to determine if enhancements are needed to identify adverse oil quality trends prior to oil quality exceeding acceptable limits.

Sincerely,

J. Hagan
General Manager -
Hope Creek Operations

SORC Mtg. 90-062