NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Hope Creek Generating Station	0 5 0 0 0 3 5 4	1 OF 0 4

TITLE (4) North Plant Vent Sample Pump Inoperable For More Than 72 Hours-Equipment Failure - Special Report 87-010

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
										0 5 0 0 0
1 2	1 8	8 7	8 7	— N A	— 0 0	0 1	0 4	8 8		0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 1 0 0	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	X OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	SPECIAL REPORT 87-010-00
	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
A.M. Ervin, Lead Engineer - Technical	AREA CODE 6 0 1 9 3 3 9 - 1 5 1 2 3 9

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On December 18, 1987 at 1630 hours the Plant was in OPERATIONAL CONDITION 1 (Power Operation) at 100% power generating 1090 MWe when the North Plant Vent Mid/High Flow Range Sample Pump was declared inoperable and the preplanned alternate method of monitoring the radiation level of the vent discharge was begun. The root cause of this occurrence was inadequate documentation which delayed the identification of the defective pump intake reed valve. The pump subassembly containing the valve was not replaced within the 72 hours permitted by the Technical Specifications due to difficulties in troubleshooting the cause of the pump inoperability. Corrective actions include revision of the calibration procedure for the rad monitor, availability of controlled copies of the schematic drawings of the North Plant Vent Sample Flow System and updated Instrument Calibration Data Sheets containing manufacturer's calibration accuracy information.

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PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor (BWR/4)
Process Radiation Monitors (EIIS Designator: IL)

IDENTIFICATION OF OCCURRENCE

North Plant Vent Sample Pump Inoperable For More Than 72 Hours - Equipment Failure

Event Date: December 18, 1987
Event Time 1630 Hours

CONDITIONS PRIOR TO OCCURRENCE

The Plant was in OPERATIONAL CONDITION 1 (Power Operation) at 100% power generating 1090 MWe.

DESCRIPTION OF OCCURRENCE

On December 18, 1987 at 1630 hours, the North Plant Vent Medium-to-High Flow Range Sample Pump was declared inoperable and the preplanned alternate method of monitoring the radionuclide concentration of the vent discharge was begun. The pump was returned to service on December 23, 1987.

APPARENT CAUSE OF OCCURRENCE

The root cause of this occurrence was inadequate documentation which delayed the identification of the defective pump intake reed valve.

ANALYSIS OF OCCURRENCE

When it was determined that the Mid/High Range Flow Vent Sample Pump which supplies the low range Noble Gas Radiation Monitor was inoperable, Action Statement 81 of Technical Specification 3.3.7.5 was entered. In accordance with Action 81.a, the pre-planned alternate method of monitoring the noble gas level of the North Plant Vent was initiated.

The pump subassembly containing the defective reed valve was replaced from stores and the pump returned to service. The pump was not restored to operability within the 72 hours permitted by the Technical Specification because the defective part was discovered only after extensive troubleshooting and the replacement of other suspect subassemblies. The following problems contributed to the difficulties encountered during troubleshooting:

ANALYSIS OF OCCURRENCE (CONT.)

The surveillance procedure for the calibration of the North Plant Vent Sample Flow System process rad monitor contained steps which were not applicable to the rad monitor.

Insufficient controlled schematic drawings of the system were available in the station Technical Document Room (TDR).

The Instrument Calibration Data (ICD) cards did not contain sufficient information to complete calibration of the rad monitor had recalibration been required.

There have been three (3) previous similar occurrences; Special Reports 87-001 (February 2, 1987), 87-002 (March 3, 1987) and 87-004 (June 10, 1987). Each of these was caused by equipment failures which could not be repaired within 72 hours.

Any higher than normal Noble Gas release during the time in which the North Plant Vent Noble Gas Monitor was inoperable would have been detected by other process gas monitors and by the 12 hour grab sample. Additionally, the North Plant Vent Mid/High Range Gas Monitor could have been placed in service manually. For this reason the health and safety of the public were not compromised by this occurrence.

This Special Report is being submitted pursuant to Technical Specification 3.3.7.5 Action 81.b.

CORRECTIVE ACTIONS

1. The surveillance procedure for the calibration of the North Plant Vent Sample Flow System process rad monitor has been revised to delete inapplicable calibration steps.

2. Controlled copies of the schematic drawings of the North Plant Vent Sample Flow System will be made available through the Hope Creek Technical Document Room.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

CORRECTIVE ACTIONS (CONT.)

3. A program to review all ICD cards is in progress and the Rad Monitor System components which were supplied as discrete packages are scheduled for later review. The Rad Monitor System ICD cards will be reviewed for incorporation of the manufacturer's calibration accuracy information by April 1, 1987.

Sincerely,

S. LaBruna

S. LaBruna
General Manager -
Hope Creek Operations

AME:

SORC Mtg. 88-001

PSEG

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

Hope Creek Operations

January 4, 1988

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

Dear Sir:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
UNIT NO. 1
SPECIAL REPORT 87-010-00

This Special Report is being submitted pursuant to the requirements of Hope Creek Technical Specification 3.3.7.5.

Sincerely,

S. LaBruna
General Manager -
Hope Creek Operations

AME:

Attachment
SORC Mtg. 88-001

C Distribution

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