PSE&G

Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

NOV 26 1995

LR-N95215

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 NO. 95-027-00

This Licensee Event Report entitled ''Technical Specification Violation - Failure To Perform Offgas Sampling Within Required Timeframe'' is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(i)(A) and 10CFR50.73(a)(2)(i)(B).

Sincerely,

Mark E. Reddemann
General Manager -
Hope Creek Operations

JPP
SORC Mtg. 95-110

C Distribution
LER File

300041

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1/1

The power is in your hands.

NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

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

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TITLE (4)

Technical Specification Violation - Failure To Perform Offgas Sampling Within Required Timeframe

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 NAME	DOCKET NUMBER
10	27	95	95	027	00	11	26	95		05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)					
POWER LEVEL (10)	91	20.2201(b)	20.2203(a)(2)(v)	X	50.73(a)(2)(i)(A) & (B)		50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)		50.73(a)(2)(iv)		OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
P. Quick	(609) 339-2413

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 15 single-spaced typewritten lines) (16)

On October 21, 1995, at 1012 hours, the Offgas Pretreatment Radiation Monitor was declared inoperable due to low sample flow. Technical Specification Table 3.3.7.1-1, Action 74, permits continued operation with the Offgas Pretreatment Radiation Monitor inoperable for 30 days. Continued operation is permitted provided that the offgas system is not bypassed and that grab samples are taken at least once per 8 hours and analyzed within the following 4 hours. On October 27, 1995, at 0002 hours, a grab sample could not be taken as required due to equipment failure. As a result of the failure to obtain a sample within the required 8 hour interval, a 12 hour hot shutdown action requirement was entered. Corrective actions include the investigation and repair of the offgas radiation monitoring equipment failures during the current refueling outage, and the establishment of alternate grab sample and offgas analysis methods to ensure that the requirements of Technical Specification Table 3.3.7.1-1, Action 74 can be met if equipment failures occur.

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

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor (BWR/4)

Offgas Pre-treatment Radiation Monitor - EIIS Identifier {IL}

IDENTIFICATION OF OCCURRENCE

Event date: October 27, 1995
Discovery date: October 27, 1995
Date determined to be reportable: October 30, 1995

This is reportable under 10 CFR 50.73 (a)(2)(i)(B).

CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 1 (Power Operation)
Reactor Power 91% of rated power, 998 MWe, (Coastdown in progress)

Other than the Offgas Pre-treatment Radiation Monitor, there were no structures, components or systems that were inoperable at the start of the event that contributed to the event.

DESCRIPTION OF OCCURRENCE

On October 21, 1995, at 1012 hours, the Offgas Pretreatment Radiation Monitor was declared inoperable due to low sample flow. Technical Specification Table 3.3.7.1-1, Action 74, permits continued operation with the Offgas Pretreatment Radiation Monitor inoperable for 30 days. Continued operation is permitted provided that the offgas system is not bypassed and that grab samples are taken at least once per 8 hours and analyzed within the following 4 hours. On October 26, 1995, corrective maintenance was initiated on the offgas radiation monitoring system. The corrective maintenance failed to restore the offgas radiation monitoring system to an operable status. In order to perform the corrective maintenance, the sample isolation valve (203) was closed and tagged. Following the maintenance activity, the valve was repositioned open. Subsequently, a Chemistry Department technician attempted to obtain another 8 hour grab sample from the offgas sample panel. As the technician operated the sample panel, it was observed that no flow was indicated through the panel and a grab sample could not be taken as required. This was the only sample point and method available for obtaining a sample of the offgas system.

As a result of the failure to obtain a sample within the required 8 hour interval, on October 27, 1995, at 0002 hours, a 12 hour hot shutdown action requirement was entered. Since the Technical Specification Limiting

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DESCRIPTION OF OCCURRENCE (Cont'd)

Conditions for Operation could not be met and the required compensatory actions could not be satisfied, the provisions of Technical Specification 3.0.2 were violated. Operation under these conditions is reportable under the provisions of 10CFR50.73(a)(2)(i)(B).

ANALYSIS OF OCCURRENCE

The offgas radiation monitoring system monitors radioactivity in a sample from the condenser offgas at a tap upstream of the ambient charcoal treatment system in a holdup pipe of the offgas system. The monitor detects the radiation concentration that is attributable to the non-condensable fission product gases that are produced in the reactor and transported with steam through the turbine to the condenser. Changes in the radiation values can be used to interpret fuel rod condition.

With the offgas radiation monitoring system inoperable, compensatory provisions are permitted (for up to 30 days) to obtain grab samples of the influent gases for the purpose of determining isotopic composition. Technical Specification Table 3.3.7.1-1, Action 74, states that these compensatory samples be taken every 8 hours and analyzed within the following four hours. From October 21, 1995, when the Offgas Pre-treatment Radiation Monitor was declared inoperable, until 0002 hours on October 27, 1995, these grab samples were taken as required by the Technical Specifications.

On October 27, 1995, when the required grab sample could not be taken, the plant entered into a 12 hour hot shutdown action requirement. Since resolution of this problem was expected in a timely manner, operation of the plant, and the offgas system, was procedurally permitted for up to an additional six hours before initiation of a plant shutdown would have been required. At 0600 hours on October 27, 1995, an alternate sample of the offgas system was taken, satisfying the Technical Specification requirements for compensatory action, and the hot shutdown action was subsequently terminated.

On November 10, 1995, the plant initiated a refueling outage and exited the applicable conditions where the Offgas Pretreatment Radiation Monitor is required to be operable or the compensatory sampling actions are needed. However, restoration of the Offgas Pretreatment Radiation Monitor to an operable status would have most likely required the plant to shutdown (at a minimum suspend operation of the offgas treatment system) to comply with the Technical Specifications. Therefore this event is also being reported under the provisions of 10CFR50.73(a)(2)(i)(A).

APPARENT CAUSE OF OCCURRENCE

Equipment failure is the cause of the missed offgas sample. Preliminary investigations concluded that the sample panel valve 203, which was used to isolate the panel for maintenance, failed upon reopening. This failure appears to be due to either the diaphragm being wedged closed or the spring failing to return the diaphragm to the open position. The exact cause of the failure cannot be determined until the valve is disassembled during the current refueling outage.

SAFETY SIGNIFICANCE

The safety significance of continued operation for approximately six hours on October 27, 1995, without the required sampling of offgas effluent was minimal. The Technical Specifications permit plant operation for 12 hours (time required to reach hot shutdown) in this condition and subsequent grab samples indicated no abnormal radiation concentrations attributable to non-condensable fission product gases and no adverse changes in fuel rod condition. Additionally, a liquid reactor coolant system sample was radiochemically analyzed to assess the Dose Equivalent Iodine (DEI) activity. DEI may also be used to assess fuel rod condition. The DEI results indicated no abnormal trends.

PREVIOUS OCCURRENCES

Two previous occurrences were reported for failure to comply with Technical Specifications Action Statements for the Offgas System. LER 90-027-00 reported a failure to analyze an offgas sample within the required time and LER 90-030-00 reported a failure to take a sample within the required time when the normal hydrogen monitor was inoperable.

In addition, there have been previous occurrences where the compensatory action of taking periodic grab samples has not been performed at the frequency specified by the Technical Specification Action Statements. The most recent documented example involved a grab sample of the offgas system. On September 27, 1995, the offgas grab sample was collected approximately 1.6 hours after the 8 hour frequency specified by Technical Specification Table 3.3.7.1-1, Action 74. The probable cause determination attributed inadequate work planning as the reason for the late grab sample. This event was not reported as a Technical Specification violation since a licensing position in effect at that time permitted the application of a 25% grace period for the performance of compensatory actions (grab samples) required by the Technical Specifications. The basis of Technical Specification 4.0.2 permits the 25% grace period to be applied to recurring surveillances specified by Technical Specification Action Statements; however, this basis was also inappropriately applied to recurring compensatory actions specified in the Technical Specifications.

CORRECTIVE ACTIONS

A new procedure has been established which implemented a backup portable offgas sampling apparatus as a backup method to safely obtain representative samples of the offgas process stream. The apparatus provides grab samples for analysis of hydrogen concentration and radioisotope content. The sampler is connected to sample valves via quick-couplers on the offgas analyzer panel (OOC-963). This method was used to obtain the grab sample on October 27, 1995, which permitted the 12 hour hot shutdown requirement to be terminated.

A corrective maintenance work order was issued to investigate and correct equipment failures resulting in the inoperability of the Offgas Pretreatment Radiation Monitor and grab sample capability. This work is scheduled to be completed during the current refueling outage.

Chemistry Services has established an alternate method to determine offgas radioactivity by comparing reactor coolant system radioiodine analysis results to previous reactor coolant system radioiodine and offgas sample analysis results. Using reactor coolant system isotopic analysis, a calculation can be performed to determine the instantaneous release rate from the fuel (uCi/sec) using the radioiodines in the reactor coolant when fuel conditions are stable. This method is being verified for applicability in satisfying the requirements of Technical Specification Table 3.3.7.1-1, Action 74. If acceptable, this method would be adopted as a tertiary backup method. Verification of this method is scheduled to be completed by February 29, 1996.

The Licensing Department has established a new position on the application of a 25% grace period for the performance of periodic compensatory actions. This action will ensure that periodic compensatory actions are appropriately performed within the specified frequency. Training on the applicability of Technical Specification 4.0.2 will be provided to personnel as appropriate.