



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

Nuclear Business Unit

LR-N95228
DEC 06 1995

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

Attn: Document Control Desk

Dear Sir:

HOPE CREEK GENERATING STATION
LICENSE NO. NPF-57
DOCKET NO. 50-354
UNIT NO. 1
LICENSEE EVENT REPORT NO. 95-030-00

This Licensee Event Report entitled "Missed FRVS Noble Gas Surveillance" is being submitted pursuant to the requirements of the Code of Federal Regulation 10CFR50.73(a)(2)(i)(B).

Sincerely,

M. E. Reddemann
General Manager
Hope Creek Operations

Attachment LER
SORC Mtg. 95-115
RJB

c Distribution
LER File 3.7

110064

The power is in your hands

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PDR ADOCK 05000354
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LICENSEE EVENT REPORT (LER)

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

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-5 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.

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TITLE (4)
Missed FRVS Noble Gas Surveillance

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
11	6	1995	95	030	00	12	06	1995	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)		087	<input type="checkbox"/> 20.2201 (b)	<input type="checkbox"/> 20.2203 (a)(2)(v)	<input checked="" type="checkbox"/> 50.73 (a)(2)(i)(B)	<input type="checkbox"/> 50.73 (a)(2)(viii)				
			<input type="checkbox"/> 20.2203 (a)(1)	<input type="checkbox"/> 20.2203 (a)(3)(i)	<input type="checkbox"/> 50.73 (a)(2)(ii)	<input type="checkbox"/> 50.73 (a)(2)(x)				
			<input type="checkbox"/> 20.2203 (a)(2)(i)	<input type="checkbox"/> 20.2203 (a)(3)(ii)	<input type="checkbox"/> 50.73 (a)(2)(iii)	73.71				
			<input type="checkbox"/> 20.2203 (a)(2)(ii)	<input type="checkbox"/> 20.2203 (a)(4)	<input type="checkbox"/> 50.73 (a)(2)(iv)	<input type="checkbox"/> OTHER				
			<input type="checkbox"/> 20.2203 (a)(2)(iii)	<input type="checkbox"/> 50.36 (c)(1)	<input type="checkbox"/> 50.73 (a)(2)(v)	Specify in abstract below or in NRC Form 365A				
			<input type="checkbox"/> 20.2203 (a)(2)(iv)	<input type="checkbox"/> 50.36 (c)(2)	<input type="checkbox"/> 50.73 (a)(2)(vii)					

LICENSEE CONTACT FOR THIS LER (12)

NAME Robert Gary, Senior Radiation Protection Supervisor	TELEPHONE NUMBER (Include Area Code) (609) 339-3578
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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
				N					

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete Expected Submission Date)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 16 single-spaced lines) (16)

On September 13, 1995, the Filtration, Recirculation and Ventilation System (FRVS) sample skid was declared inoperable due to a loss of flow control. On November 5, 1995, at 1430 the FRVS was placed in service and initial samples and flow estimates were completed as required by the Technical Specification Action Statement. The oncoming Radiation Protection (RP) shift was informed that flow estimates were required every four hours with no mention of the noble gas grab sample requirements. On November 6, 1995, after turnover from mid-shift to day-shift at 0630 hours, the RP Technician noticed that the noble gas grab sample had been missed. The RP Technician notified RP supervision of his finding. The RP Supervisor sent a technician to pull a grab sample at 0700 hours. The sample results were less than the Lower Limits of Detection. This is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) for operating in a condition prohibited by Technical Specifications. The cause of the occurrence was personnel error including an inadequate turnover and failure to review procedures to determine required actions. Corrective actions include procedure revisions, improvements to the turnover process, and training of RP personnel.

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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)
Filtration, Recirculation Ventilation System Wide Range Gas Monitoring System - Radiation Monitoring System (IL)

Identification of Occurrence

Event Date: November 6, 1995
Discovery Date: November 6, 1995
Report Date: December 6, 1995

Conditions Prior to Occurrence

Plant in OPERATIONAL CONDITION 1 (Power Operation)
Reactor Power 87%, Plant in coast down for RFO6

The Filtration, Recirculation Ventilation System (FRVS) was in a 20 hour test run at the time of the event.

Description of Occurrence

On September 13, 1995, Operations declared the Filtration, Recirculation, and Ventilation System (FRVS) Wide Range Gas Monitor (WRGM) inoperable due to loss of flow control. Operations entered into Technical Specification Action Statements 3.3.7.11 and 3.3.7.5.

The RP technician initiated HC.RP-ST.ZZ-0004(Q), Form 2, and updated the Radiation Monitoring System (RMS) Status Board as inoperable/no Radiation Protection (RP) action unless FRVS was placed in service.

On November 5, 1995, the Operations department notified RP of a planned FRVS run. At 1030 the on-duty Operations crew and RP held a pre-job briefing for the FRVS run. The briefing covered the actions required during the FRVS run. The day-shift RP technicians reviewed the procedure and Technical Specifications to verify the samples and frequencies. During turnover from day to swing-shift, the RP technicians heard the Control Room announce the start of the FRVS run. The RP technicians went to the FRVS skid to pull the initial samples. The RP technicians ran into problems with the tritium sampling portion of the procedure. The RP technicians left the area to notify RP supervision of the procedure problem. The RP supervisor and the RP technician resolved the procedure question. The samples and sample

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Description of Occurrence (Cont'd)

frequencies were not discussed. The RP technician returned to the FRVS skid and completed the tritium samples.

At 2230 on November 5, 1995, the mid-shift RP technicians arrived and received turnover from the swing-shift RP technicians. During this turnover, the NSS in the Control Room called to verify that RP was completing "all of the required actions" for the FRVS run. The RP technician stated that required actions were being taken. No specific requirements were mentioned. At 2230, the mid-shift RP Supervisor reviewed the RMS Status Board and noted that the requirements written on the board (flow estimates required every four hours) were accomplished. Some time after 2230 the NSS in the Control Room again called to ask if all RP actions were being completed and again was given assurance by the mid-shift RP technician. The mid-shift RP technician continued to log in the flow estimates the remainder of the shift. At 0635 on November 6, 1995, the previous day-shift RP technician returned and received turnover.

Analysis of Occurrence

The day-shift RP technician discovered the required noble gas sample had not been obtained. The day-shift RP technician notified the RP Supervisor and an RP technician obtained the noble gas sample. Sample results were less than the Lower Limits of Detection. With the FRVS in service and the FRVS Radiation Monitoring System inoperable, noble gas samples are required every 12 hours. This sample is taken to ensure the effluent discharge is within Technical Specification Limits. The initial noble gas grab sample taken at 1430 on November 5, 1995, was within the limits of the gaseous effluent permit. The next sample taken 16 hours later (four hours past the required time) was also within the limits of the gaseous effluent permit. During the 16 hours between the samples, Hope Creek remained at steady state power with no reactor transients. The off gas radiation monitors, refuel floor and reactor building ventilation radiation monitors did not indicate any change in activity levels. All other parameters that would indicate an increase in noble gas remained normal and unchanged.

The effluent streams in service during this time period were the South Plant Vent (408,000 cfm), North Plant Vent (48,300 cfm), and FRVS (4,000 cfm). Without indication of an increase in noble gas during the period between samples and the FRVS being less than one percent of the total discharge, a violation of the gaseous effluent permit did

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Analysis of Occurrence

not occur. There were several barriers in place to prevent this occurrence. The first barrier is an effective turn-over process. This information was not passed on by RP technicians during shift turnover.

The second barrier is the Gaseous Effluent Surveillance procedure (HC.RP-ST.ZZ-0004(Q)) which specifies the samples required. Although the swing-shift and mid-shift technician were performing the gaseous effluent surveillance, they were using Operation of the FRVS Skid procedure (HC.RP-TI.SP-0002(Q)), for sampling. This procedure does not reference the Gaseous Effluent Surveillance procedure. The form (HC.RP-ST.ZZ-0004-2) Tech Spec Action Log was filled out correctly and reviewed by each shift.

This log listed each applicable action number but does not list a description of the action. Even though each shift reviewed this form, only day-shift referenced the procedure for a description of the action.

The third barrier is the RMS Status Board in the RP office. HC.RP-ST.ZZ-0004(Q), requires the RP technician that is notified of an inoperable monitor Action Statement from the SNSS/NSS, to update the status board. This update normally consists of listing each required action with the due date and time.

The status board stated "no action required unless FRVS is in service". The action statement form was properly initiated by the RP technician receiving the inoperability call on September 19, 1995, two months prior to the FRVS run. The RMS Status Board was not updated for the additional sampling requirements when the FRVS run was started. A final barrier was provided by the NSS who called both the swing-shift and mid-shift RP technician to check that the required surveys were being performed.

Prior Similar Occurrence

LER 86-37 dated August 12, 1986, and LER 87-001 dated February 4, 1987 addressed missed RP surveillances. LER 86-37 addressed a missed noble gas grab sample from the South Plant Vent. This occurrence was attributed to a failure to verify the status of the equipment with the SNSS prior to suspending the sampling. LER 87-001 addressed missed drywell grab samples. This occurrence was attributed to a failure to check the log for required samples.

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Cause of the Occurrence

Personnel error was the principle cause of this occurrence. Failure to review procedures to determine required actions and inadequate turnover were the principle errors made by the personnel involved.

The impending FRVS run was discussed including the need to set up the alternate rig. The FRVS run started and was announced during day-shift to swing-shift turnover. The swing-shift technician did not review the procedure and communicated that only flow estimates were required. The mid-shift technician relied on the information from the swing-shift technician and did not verify it against the procedure.

Poor verbal and written communication was a contributing factor. The specific actions required should have been updated on the RMS Status Board when FRVS was placed in service. The Operation of the FRVS Skid procedure should reference the Gaseous Effluent procedure.

Safety Significance

The radiological safety significance is low due to other instrumentation available for monitoring noble gas in the plant. The drywell leak detection skid, off gas pretreatment radiation monitor, and various duct monitors did not indicate any upward trends during this time period.

Corrective Actions

1. Meetings have been held with Radiation Protection personnel on proper turnovers.
2. Appropriate disciplinary action has been given to the personnel involved.
3. Procedure HC.RP-TI.SP-0002(Q) has been revised to reference HC.RP-ST.ZZ-0004(Q).
4. This LER will become required reading for Radiation Protection personnel.
5. Radiation Protection continuing training will be provided to the Radiation Protection department on applicable Technical Specifications requirements, procedure use, and management expectations on verification and validation.

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Corrective Actions (Cont'd)

6. A Radiation Protection turnover form has been developed providing technicians with more information on RMS actions.
7. Technical Specification sampling frequency will be reviewed.
8. HC.RP-ST.ZZ-0004(Q) will be revised to give a description of the actions required by the Technical Specifications.