



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

Hope Creek Generating Station

DATE February 26, 1992

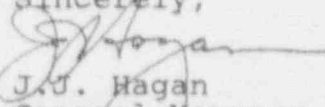
U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
UNIT NO. 1
LICENSEE EVENT REPORT 92-003-00

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

Sincerely,


J.J. Hagan
General Manager -
Hope Creek Operations

LLA/

Attachment
SORC Mtg. 92-016
C Distribution

020114

The Energy People

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PDR ADOCK 05000354
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LICENSEE EVENT REPORT																			
FACILITY NAME (1) HOPE CREEK GENERATING STATION												DOCKET NUMBER (2) 0 5 0 0 0 3 5 4						PAGE (3) 1 OF 5	
TITLE (4): Engineered Safety System Actuation - Unplanned start of the "A" Control Room Emergency Filter System due to equipment malfunction.																			
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	1	2	9	9	2	.	0	0	3	.	0	0	0	2	2	6	9	2	
OPERATING (9) MODE 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)		xx		50.73(a)(2)(iv)		73.71(b)							
				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)		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 Louis Aversa, Senior Staff Engineer - Technical												TELEPHONE NUMBER 6 0 9 3 3 0 3 3 8 6							
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE NOTED IN THIS REPORT (13)																			
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS?	////	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS?									
B	IL	RE	G063	NO	////														
SUPPLEMENTAL REPORT EXPECTED? (14) YES NO x					DATE EXPECTED (15)					MONTH	DAY	YEAR	////////////////////						
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ABSTRACT (16)

On January 29, 1992 at 1349 hours during performance of a Technical Specification surveillance test an inadvertent isolation of the "A" Control Room ventilation (CRV) system and start of the "A" Control Room Emergency Filter (CREF) unit occurred. The Nuclear Control Operator (NCO RO -licensed) received indications of a channel "C1" high Radiation signal which generated the CRV isolation and CREF start. At the time of the event, Instrument and Controls technicians (I&C techs) were performing a surveillance on the "D" channel radiation detector associated with the "A" CRV and CREF. This detector is located in the same inlet plenum as the "C1" detector which caused the isolation of the "A" CRV and start of the "A" CREF. The technicians were contacted and reported to the main control room. Initially it was believed that as the techs were passing sources near the "C1" detector during the "D" detector test they had inadvertently caused the actuation of the "C1" channel. The CRV was returned to normal operation and surveillance testing was completed with no further incidents. Subsequent investigation revealed that the foil cover on the "C1" channel detector failed and when the "D" channel detector was removed from the duct light entering the duct caused a false high indication on the "C1" detector. The replacement of the foil on the "C1" detector has been scheduled. The damaged foil from the "C1" detector will be analyzed to determine the failure mode.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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HOPE CREEK GENERATING STATION	05000354	YEAR	*	NUMBER			*	REV				
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PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor (BWR/4)
 SYSTEM Control Room Emergency Filter System (EIIS designation VJ)

IDENTIFICATION OF OCCURRENCE

TITLE: Engineered Safety System Actuation - Unplanned start of "A" Control Room Emergency Filter System (CREF) due to equipment malfunction.

Event Date: 1/29/92

Event Time: 1349

This LER was initiated by Incident Report No. 92-023

CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 1 (Power Operation)
 Unit load 1120 MWe.

DESCRIPTION OF OCCURRENCE

On January 29, 1992 at 1349 hours during performance of a Technical Specification surveillance test an inadvertent isolation of the "A" Control Room ventilation (CRV) system and start of the "A" Control Room Emergency Filter (CREF) unit occurred. The Nuclear Control Operator (NCO RO -licensed) received indications of a channel "C1" high Radiation signal which generated the CRV isolation and CREF start. At the time of the event, Instrument and Controls technicians (I&C techs) were performing a surveillance on the "D" channel radiation detector associated with the "A" CRV and CREF. This detector is located in the same inlet plenum as the "C1" detector which caused the isolation of the "A" CRV and start of the "A" CREF. The technicians were contacted and reported to the main control room. Initially it was believed that as the techs were passing sources near the "C1" detector during the "D" detector test they had inadvertently caused the actuation of the "C1" channel. The CRV was returned to normal operation and surveillance testing was completed with no further incidents.

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ANALYSIS OF OCCURRENCE

The Control Room Ventilation System Consists of two Independent and redundant ventilation trains each capable of maintaining control room habitability during normal and accident conditions. The system supplies a combination of return air and outside air to the control room via several fan and damper arrangements depending on operating conditions. The outside air inlet plenum is monitored by two radiation detectors which upon actuation isolate the normal outside air intake and start the emergency filter unit. Each radiation detector is capable of isolating the normal outside air duct via redundant isolation dampers, and starting the CREF. The CREF contains charcoal and high efficiency particulate absolute filters which treat the outside air stream during accident conditions.

During surveillance testing the radiation detectors are removed from the isolation circuit to prevent unnecessary isolations as the redundant channel is capable of performing the isolation function. As the test is designed not to cause an isolation, the technicians performing the surveillance immediately stopped testing when they heard the isolation damper close. A review of the alarm printer revealed the isolation occurred from the redundant detector which was located approximately three feet from the detector under test. The technicians assumed that as the sources being used were passed near the in service detector and an inadvertent actuation of that channel had occurred. The surveillance was near completion and after discussion with control room personnel it was decided that as long as the sources were kept away from the inservice detector the testing could be resumed. Testing was completed with no further actuations of the inservice channel.

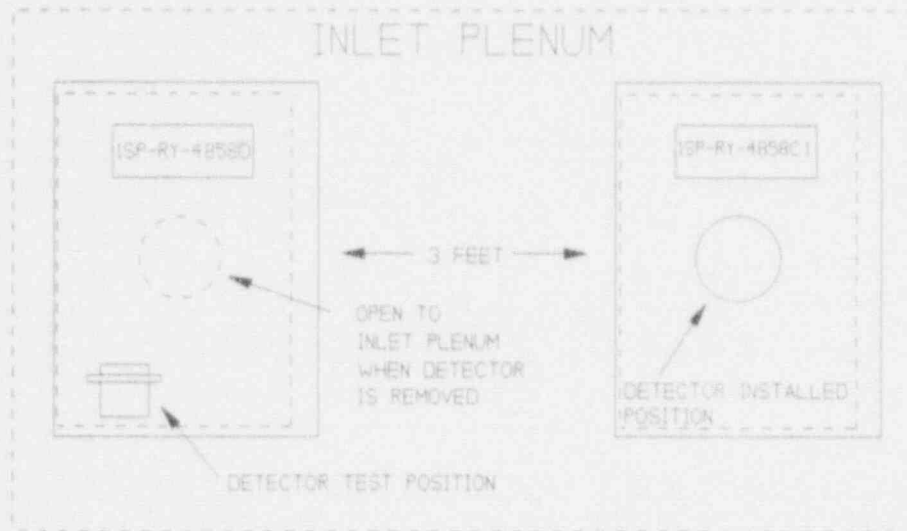
During subsequent investigation it was determined that the sources being used, which are principally beta emitters, were not capable of causing an actuation of the inservice detector due to distance of the source from the detector and the shielding provided by the duct and detector cabinet. The detectors are beta scintillation detectors which are covered with a thin piece of foil to prevent light intrusion which can cause a false output from the detector. The test is performed by removing the detector from the duct and placing it face up in the cabinet. The test source is then placed directly on the detector and the cabinet door is closed. The detector reading is then allowed to stabilize for a period of time before the readings are recorded. This process is repeated with six different strength sources to test the entire range of the detector.

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ANALYSIS OF OCCURRENCE (con't)

After detailed review of alarm printouts it was determined that the "C1" channel was indicating erroneously during performance of the "D" channel detector testing. Further investigation revealed that during the period the "D" detector was removed from the duct, light was entering through the opening each time the door was opened and closed as the test sources were changed. An inspection of the foil cover for the "C1" detector revealed several imperfections and discoloration of the foil. The defective foil was allowing light to enter the "C1" detector resulting in false high readings and subsequent start of the CREF.



APPARENT CAUSE OF OCCURRENCE

The root cause of the this event is the failed foil cover on the "C1" channel detector. The cause of the foil failure will be determined by laboratory analysis of the foil.

PREVIOUS OCCURRENCES

There have been no similar failures of the foil covering on the detector.

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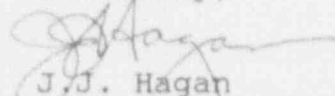
SAFETY SIGNIFICANCE

This event posed minimal safety significance as the detector was capable of performing its intended function regardless of the condition of the foil. The location of the detector in the inlet plenum precludes the possibility of light entering the detector. If light were to enter the duct the actuation setpoint would be reached at a more conservative value.

CORRECTIVE ACTIONS

1. Replacement of the foil and recalibration of the detector will be completed by 3/30/92.
2. The Sensor Calibration procedure will be reviewed to determine if additional steps are required for detailed inspection of the foil.

Sincerely,



J.J. Hagan
General Manager -
Hope Creek Operations

LLA/

SORC Mtg. 92-016