



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

Hope Creek Generating Station

DATE March 22, 1993

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 93-001-00

This Licensee Event Report is being submitted pursuant to
the requirements of 10CFR 50.73(a)(2)(i).

Sincerely,

R.J. Hovey
General Manager -
Hope Creek Operations

LLA/

Attachment
SORC Mtg. 93-012
C Distribution

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PDR ADDCK 05000354
S PDR

The Energy People

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 4																	
TITLE (4): Technical Specification noncompliance - surveillance test missed on High Pressure Coolant Injection Isolation System Delta T channel.																																										
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)																										
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OPERATING (9) MODE			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)										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)																			
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20.405(a)(1)(v)										50.73(a)(2)(iii)										50.73(a)(2)(ix)																						
<div style="text-align: center;">LICENSEE CONTACT FOR THIS LER (12)</div>																																										
NAME Louis Aversa, Senior Staff Engineer - Technical															TELEPHONE NUMBER 6 0 9 3 3 9 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?																																	
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SUPPLEMENTAL REPORT EXPECTED? (14) YES NO x					DATE EXPECTED (15)					MONTH	DAY	YEAR																														

ABSTRACT (16)

On 2/16/93, Instrument and Controls technicians performing a monthly functional test for a High Pressure Coolant Injection (HPCI) Isolation System delta T channel A5 noted that the channel under test was in bypass condition. The technicians notified their supervisor who determined that the A5 channel specified in the functional test had been placed in bypass during the previous refuel outage and the alternate A2 channel was placed in service as the primary channel at that time. On 2/18/93, review of the surveillance status of both channels, the supervisor recommended to the Senior Nuclear Shift Supervisor (SNSS - SRO licensed), that the A5 channel should be placed in service as primary and the A2 channel bypassed as the surveillance testing on A2 had not been completed. The SNSS concurred and the A5 channel was placed in service returning the isolation system to operable status. Review of test data following discovery of the missed functional test and data acquired from a channel calibration test performed during the period indicates that the channel had remained functional for the period. Procedures will be revised to identify all actions required to place a spare channel in service.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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PLANT AND SYSTEM IDENTIFICATION

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

IDENTIFICATION OF OCCURRENCE

TITLE: Technical Specification noncompliance - surveillance test missed on High Pressure Coolant Injection Isolation System delta T channel.

Event Date: 11/2/92, 11/30/92 and 1/20/93
Event Discovery 2/18/93
Discovery Time: 1530
This LER was initiated by Incident Report No. 93-008

CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 1 (Power Operation)
Reactor Power 100% of rated, 1115 MWe.

DESCRIPTION OF OCCURRENCE

On 2/16/93, Instrument and Controls technicians performing a monthly functional test for a High Pressure Coolant Injection (HPCI) Isolation System delta T channel A5 noted that the channel under test was in bypass condition. The technicians notified their supervisor who determined that the A5 channel specified in the functional test had been placed in bypass during the previous refuel outage and the alternate A2 channel was placed in service as the primary channel at that time. On 2/18/93, review of the surveillance status of both channels, the supervisor recommended to the Senior Nuclear Shift Supervisor (SNSS -SRO licensed), that the A5 channel should be placed in service as primary and the A2 channel bypassed as the surveillance testing on A2 had not been completed. The SNSS concurred and the A5 channel was placed in service returning the isolation system to operable status.

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ANALYSIS OF OCCURRENCE

The HPCI isolation system is designed to provide isolation of the HPCI steam supply in the event a line break were to occur. The system is designed to monitor steam line flow, area temperatures, and delta temperatures in the pipe and HPCI rooms. Any one area temperature or delta temperature circuit can isolate the steam supply if a predetermined setpoint is reached. The system employs a NUMAC signal processor which has the capability of using either of two installed detectors one of which is designated as a spare the other as primary. The processor indicates which channel is bypassed by displaying a letter "B" in the processors front panel display when testing is performed. The display is used to obtain data regarding setpoint and alarm values, as well as, other operational data. This system was installed during the third refuel outage, at which time primary and backup channel designations were assigned, with the primary channels being scheduled for routine surveillance testing.

In December of 1991, a ground was discovered on the thermocouple for the A2 channel delta T circuit which was designated as the primary for the HPCI isolation logic. Due to the location of the thermocouple it was decided to place the spare thermocouple (designated A5) in service and restore the failed thermocouple during the next refuel outage (RFO 4). A work order was written to place A5 detector in service as the primary and designate the A2 channel as spare. The monthly functional test was also revised to test the A5 channel.

During Refuel outage 4 in November of 1992, the work order to repair the A2 thermocouple was completed. The work order restored the A2 detector to primary status and returned the A5 channel to spare. The retest of the channel verified the ground was cleared and a channel check was performed to verify proper operation. After verifying proper operation, the work order was closed, however, personnel involved in the channel restoration failed to revise the monthly functional test to again designate the A2 as the primary. The functional test was performed twice in November and once in January, and again in February when it was discovered that the wrong channel was being tested by the technician performing the test. The technician noticed the "B" (bypass) designation in the module display and reported to his supervisor that the in service channel was not being tested. The supervisor reported the condition to the SNSS, and took action to place the operable A5 channel which had been tested in service. The following day the functional test was revised for the A2 channel and performed satisfactorily. In December the channel calibration procedure (18 month frequency) was scheduled and performed satisfactorily for the A2 channel. As the 18 month calibration satisfies the requirement of the monthly functional test no functional testing was scheduled in December with the A2 channel being operable for the 30 day period following the channel calibration.

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ANALYSIS OF OCCURRENCE

As a result of testing performed following the A2 channel repair during refuel outage 4, the channel calibration procedure performed in December, and the subsequent functional test performance on the A2 channel in February, it has been determined that the Delta T channel remained fully functional and capable of performing the required isolation function for the entire time the functional test was missed.

APPARENT CAUSE OF OCCURRENCE

The root cause of this event is procedural inadequacy. Although a procedure exists which designates the primary and spare channels for all isolation logics, it does not identify the actions required to place a spare channel in service or restoring the normal channel to service.

PREVIOUS OCCURRENCES

There has been 1 previous event of missed technical specification surveillance involving Maintenance department procedures not identifying the correct component under test. (LER 86-009-00)

SAFETY SIGNIFICANCE

The safety significance of this event was minimal. The combination of tests performed prior to, during, and following the discovery of the 2 missed functional tests indicates the Delta T channel was capable of performing the isolation function. All remaining area temperature channels of the HPCI isolation system were fully functional during the time the delta T channel was not being tested.

CORRECTIVE ACTIONS

1. The logic channel surveillance was completed satisfactorily.
2. Procedures will be revised to identify all actions needed to place a spare channel in service and restoration requirements.

Sincerely,

S. J. Hovey for R. J. Hovey

R.J. Hovey
General Manager -
Hope Creek Operations