



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

May 12, 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 88-003-00

This Special Report is being submitted pursuant to the requirements of Technical Specification 4.8.1.1.3 and Regulatory Guide 1.108.

Sincerely,

S. LaBruna  
General Manager -  
Hope Creek Operations

AME:

Attachment  
SORC Mtg. 88-072

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The Energy People

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Hope Creek Generating Station	DOCKET NUMBER (2) 0 5 0 0 0 3 5 4	PAGE (3) 1 OF 0 4
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TITLE (4) Valid Emergency Diesel Generator Failure To Start - Equipment Failure

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 4	1 6	8 8	8 8	0 0 3	0 0	0 5	1 2	8 8			0 5 0 0 0
											0 5 0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

OPERATING MODE (9) 1	20.402(a)	20.406(a)	30.73(a)(2)(iv)	73.71(a)
POWER LEVEL (10) 1 1 0 0	20.406(a)(1)(ii)	30.38(a)(1)	30.73(a)(2)(v)	73.71(a)
	20.406(a)(1)(iii)	30.38(a)(2)	30.73(a)(2)(vi)	<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.406(a)(1)(iv)	30.73(a)(2)(i)	30.73(a)(2)(vii)(A)	SPECIAL REPORT 88-003
	20.406(a)(1)(v)	30.73(a)(2)(ii)	30.73(a)(2)(vii)(B)	
	20.402(a)(1)(iv)	30.73(a)(2)(iii)	30.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME A. M. Ervin, Lead Engineer - Technical	TELEPHONE NUMBER AREA CODE 6 0 9 3 3 9 - 5 2 3 9
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On April 16, 1988 at 2219 hours, the Plant was in OPERATIONAL CONDITION 1 (Power Operation) at 100% power generating 1060 MWe. At that time the "B" Emergency Diesel Generator (EDG) started but failed to start within 10 seconds during monthly surveillance testing (actual starting time was 10.1 seconds). It was determined that one of the air receivers had failed to discharge. One of the barring device interlock pistons which is in the flowpath of control air to the air start valve solenoid was stuck in the closed position, preventing the passage of control air to the main air start valve. The piston was manually repositioned and the "B" EDG was retested satisfactory. The requirements of Technical Specification 3.8.1.1 were satisfied and the action statement was cleared. The root cause of this occurrence was the failure of the barring gear interlock piston to return to its normal position following the removal of the barring device due to piston burring - equipment failure. The piston was de-burred, cleaned and tested satisfactory.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Hope Creek Generating Station	0500035488	-	N/A	-	02	OF	04

TEXT (if more space is required, use additional NRC Form 2064 (1))

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor (BWR/4)  
Emergency Diesel Generators (EDG) (EIS Designator:EK)

IDENTIFICATION OF OCCURRENCE

Valid Emergency Diesel Generator Failure To Start - Equipment failure

Event Date: April 16, 1988

Event Time 2219 Hours

This LER was initiated by Incident Report No. 88-073

CONDITIONS PRIOR TO OCCURRENCE

The Plant was in OPERATIONAL CONDITION 1 (Power Operation) at 100% power generating 1060 MWe.

DESCRIPTION OF OCCURRENCE

On April 16, 1988 at 2219 hours, the "B" Emergency Diesel Generator (EDG) started but failed to start within 10 seconds during monthly surveillance testing (actual starting time was 10.1 seconds). It was determined that one of the air receivers had failed to discharge. One of the barring device interlock pistons which is in the flowpath of control air to the air start valve solenoid was stuck in the closed position, preventing the passage of control air to the main air start valve. The piston was manually repositioned and the "B" EDG was retested satisfactory. The requirements of Technical Specification 3.8.1.1 were satisfied and the action statement was cleared.

APPARENT CAUSE OF OCCURRENCE

The root cause of this occurrence was the failure of the barring gear interlock piston to return to its normal position following the removal of the barring device due to piston burring - equipment failure

ANALYSIS OF OCCURRENCE

It is believed that the barring gear interlock piston did not return to its normal position following the removal of the barring device. The barring device was last used during the 13 month surveillance of the EDG performed on March 18, 1988. The monthly EDG start test was performed on March 18, 1988 following the 18 month surveillance testing. Since the "B" EDG started within 10 seconds as required, the mispositioning of the piston was not detected at that time.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Hope Creek Generating Station	DOCKET NUMBER (2)  0 5 0 0 0 3 5 4 8 8	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 8	- N / A -		0 3	OF 0 4

TEXT (if more space is required, use additional NRC Form 308A's) (17)

ANALYSIS OF OCCURRENCE (CONTINUED)

At the time of the April 16, 1988 monthly testing of the EDG, the mispositioned piston again prevented the discharge of one bank of the EDG starting air. Investigation has determined that a burr on the barring gear interlock piston prevented the piston's return to the withdrawn position and prevented control air from opening the main start valve for one bank of air operators.

The investigation following the failure of the EDG to start identified a burr on the barring gear interlock piston. The piston was de-burred, cleaned and tested satisfactory.

PREVIOUS OCCURRENCES

This is the first valid failure to start of the "B" EDG. There have been two previous valid failures, one on the "A" and another on the "D" EDG, however the root causes of these events were unrelated to the barring gear interlocks.

SAFETY ASSESSMENT

Had a more severe operating condition occurred during the period between the last successful start of the "B" EDG and this failure of the "B" EDG to start within 10 seconds, the AC power supply would have been adequate for all safety functions, since all necessary onsite AC power supply requirements of the plant safety systems can be met by three EDGs. If, during such an operating condition, the plant suffered a single active failure of one EDG and the "B" EDG experienced a start time of 10.1 seconds (the measured value leading to this valid failure), adequate emergency AC power would have been available. The 1% increase over the 10 second start time permitted by the Technical Specifications would not have significantly impacted the "B" EDG performance. For this reason the health and safety of the public were not compromised by this event.

REPORTABILITY

This report is being submitted pursuant to the requirements of Technical Specification 4.8.1.1.3 and Regulatory Guide 1.108.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

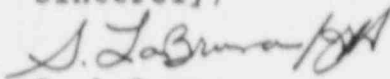
FACILITY NAME (1)  Hope Creek Generating Station	DOCKET NUMBER (2)  0 5 0 0 0 3 5 4 8 8	LER NUMBER (3)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
			N/A		0 4	OF 0 4

TEXT: If more space is required, use additional NRC Form 308A (2/11/77)

CORRECTIVE ACTIONS

1. As previously described, the barring gear interlock piston was de-burred, cleaned and tested satisfactory.
2. The barring device interlock pistons in the other three EDGs were inspected and no deficiencies were found.

Sincerely,



S. LaBruna  
 General Manager -  
 Hope Creek Operations

AME:

SORC Mtg. 88-072