



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

Nuclear Business Unit

JUN 04 1996  
LR-N96148

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

Dear Sir:

HOPE CREEK GENERATING STATION  
DOCKET NO. 50-354  
UNIT 1  
LICENSEE EVENT REPORT 96-017-00

This Licensee Event Report entitled "Failure to Perform Electrical Distribution System Line-up Within the Technical Specification Required Time Frame" is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(i)(B).

Sincerely,

Clay C. Warren  
Acting General Manager -  
Hope Creek Operations

Attachment LER  
SORC Mtg. 96-057  
LMK/tcp

BC Distribution  
File 3.7

070006

9606070020 960604  
PDR ADOCK 05000354  
S PDR

The power is in your hands.

Attachment A

The following items represent the commitments that Public Service Electric & Gas (PSE&G) is making to the Nuclear Regulatory Commission relative to LER 354/96-017-00. The commitments are as follows:

1. Operations Management shall conduct a rolldown of the event focusing on expectations regarding the precaution requiring all personnel to keep the control room informed of incomplete or unsatisfactorily performed procedure steps and the importance of self-checking during data collection. (June 28, 1996)
2. Review of the event will be included in Operating Experience Feedback training for the Operations department. (August 16, 1996)

EXPIRES 04/30/98

## 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-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.

FACILITY NAME (1)

Hope Creek Generating Station

DOCKET NUMBER (2)

05000354

PAGE (3)

1 OF 5

TITLE (4)

Failure to Perform Electrical Distribution System Line-up Within the Technical Specification Required Time Frame.

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
05	05	96	96	-- 017	-- 00	06	04	96	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		100	20.2201(b)		20.2203(a)(2)(v)		x		50.73(a)(2)(i)(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

Lisa Kepley, Licensing Engineer

TELEPHONE NUMBER (Include Area Code)

(609) 339-1106

## 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)

YES

(if yes, complete EXPECTED SUBMISSION DATE).

NO

x

EXPECTED  
SUBMISSION  
DATE (15)

MONTH

DAY

YEAR

## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 5, 1996, at approximately 2345 hours, during performance of the monthly Emergency Diesel Generator (EDG) surveillance test, a Licensed Reactor Operator recorded the lube oil temperature for the "D" EDG at 172 degrees Fahrenheit in the surveillance test procedure. At 0300 hours on May 6, 1996, a Nuclear Control Operator performing a review of the surveillance test data observed that the "D" EDG lube oil temperature data that was recorded was outside of the acceptance criteria required by the Technical Specifications. Because the inoperability was not acknowledged until 0300 hours on May 6, 1996, compliance with the Technical Specifications was not met. This condition is reportable under 10CFR50.73(a)(2)(i)(B) as a condition or operation prohibited by the plant Technical Specifications. The cause of the occurrence is personnel error as a result of inattention to detail. Corrective actions address the personnel performance issues and repair of the "D" EDG.

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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)  
Emergency Diesel Generators: KJ, EIIIS Identifier: EK

## IDENTIFICATION OF OCCURRENCE

Event Date: May 5, 1996  
Event Time: 2345 hours  
Discovery Date: May 9, 1996

## CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 1 (Power Operation)  
Reactor Power 100% of rated

There were no structures, systems, or components that were inoperable at the start of the event that contributed to the event.

## DESCRIPTION OF OCCURRENCE

On May 5, 1996, at approximately 2345 hours, during performance of the monthly Emergency Diesel Generator (EDG) surveillance test, "Emergency Diesel Generator DG400 Operability Test - Monthly," a Licensed Reactor Operator (operator), fulfilling an Equipment Operator responsibility, recorded the lube oil temperature for the "D" EDG at 172 degrees Fahrenheit. This recorded value was outside of the procedurally described acceptance criteria but was not recognized by the operator performing the test. At 0300 hours on May 6, 1996, a Nuclear Control Operator performing a review of the surveillance test data observed that the "D" EDG lube oil temperature was outside of the acceptance criteria required by Technical Specification 4.8.1.1.2.a.8, which states, "Verify... the lube oil pressure, temperature, and differential pressure across the lube oil filters to be within manufacturer's specifications". At 0300 hours, the "D" EDG was declared inoperable and actions required per Technical Specification Action Statement 3.8.1.1.b were initiated. Technical Specification Action Statement 3.8.1.1.b requires that within one hour each of the "required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be determined operable...by verifying correct breaker alignment and indicated power availability". The required distribution system alignment check was completed at 0343 hours on May 6, 1996. This condition is reportable under 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant Technical Specifications.

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## ANALYSIS OF OCCURRENCE

Technical Specification Surveillance Requirement 4.8.1.1.2.a.8 verifies "the lube oil pressure, temperature, and differential pressure across the lube oil filters to be within manufacturer's specifications." The manufacturer recommends that the maximum lube oil temperature be less than or equal to 170 degrees Fahrenheit.

At approximately 2345 hours on May 5, 1996, during performance of surveillance test HC.OP-ST.KJ-0004(Q), "Emergency Diesel Generator DG400 Operability Test Monthly," an operator observing the lube oil temperature recorded a value of 172 degrees Fahrenheit in the surveillance test procedure. At the time of data collection, the operator did not compare the recorded lube oil temperature to the maximum allowable temperature specified in the procedure. Approximately 2 hours later, after completion of the field work associated with the surveillance test, the operator began transcribing the data from the field copy of the surveillance test procedure to the master copy of the surveillance test procedure, which is kept in the Control Room. During the data transfer, the operator recognized that the recorded data was above the maximum allowable temperature specified in the procedure, marked the step unsatisfactory, and began initiating an Action Request to correct the deficiency. However, the operator failed to notify shift management and comply with a precaution in the procedure which states that "the NCO and the [Senior Nuclear Shift Supervisor/Nuclear Shift Supervisor] are to be immediately notified if, at any time during the performance of this test, a step cannot be completed or is observed to be unsatisfactory". As a result, the inoperability of the "D" EDG due to the high lube oil temperature was not recognized until the on shift Nuclear Control Operator's review of the surveillance test data at 0300 hours on May 6, 1996. The time of discovery of the inoperability of the "D" EDG should have been at 2345 hours on May 5, 1996. Because the inoperability of the "D" EDG was not acknowledged until 0300 hours on May 6, 1996, the Technical Specification Action Statement was not completed within one hour of 2345 hours on May 5, 1996.

The cause of the high lube oil temperature was determined to be degradation of the temperature control valve on the bypass line around the lube oil cooler heat exchanger. The lube oil temperature data for the other EDGs was reviewed for evidence of the same temperature control valve degradation. An increasing trend of the "A" EDG lube oil temperature data indicated that the "A" EDG temperature control valve was experiencing the same degradation. The temperature data for the "B" and "C" EDGs was steady.



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## CAUSE OF OCCURRENCE

The cause of not completing the Technical Specification action in the required time is personnel error due to inattention to detail. This personnel error resulted in a procedure non-compliance and late acknowledgement that the recorded data was outside of the acceptance criteria and "D" EDG was inoperable.

## ASSESSMENT OF SAFETY CONSEQUENCES AND IMPLICATIONS

During this condition, all offsite power sources were operable. As stated previously, Technical Specification action statement 3.8.1.1.b, "A. C. Sources - Operating," was not met within the required time following documentation of the lube oil temperature above the maximum limit recommended by the manufacturer. However, engineering judgement concluded that the two degree difference between the acceptance criteria of 170 degrees Fahrenheit and the 172 degree actual temperature would not affect long term operability of the EDG. The "D" EDG successfully operated at 100% load for at least one hour. No alarms were received during the surveillance test. In addition, although the cooling water to the lube oil cooler heat exchanger was 71 degrees Fahrenheit, there is reasonable assurance that the maximum design temperature of the cooling water, 95 degrees Fahrenheit would have maintained the lube oil temperature such that it would maintain its lubrication characteristics. As a result, the "D" EDG would have been capable of performing its intended safety function. Based upon the above discussion, the health and safety of the public were not affected.

## PREVIOUS OCCURRENCES

Although previous occurrences of failure to take actions required by the Technical Specifications have been reported, there was one previous non-compliance with Technical Specification action statement 3.8.1.1.b due to not immediately recognizing EDG inoperability. This previous occurrence is documented in Hope Creek's response, dated April 28, 1995, to a Notice of Violation cited in Inspection Report 354/95-01. The cause of this occurrence was inadequate review of the Technical Specifications and inattention to detail which resulted in the operating crew not recognizing the inoperability of the EDG due to an inoperable fuel oil transfer pump. The corrective actions focused on ensuring familiarity with the Technical Specifications and would not have been expected to prevent this occurrence.

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## CORRECTIVE ACTIONS

1. Personnel performance issues were addressed appropriately.
2. The temperature control valves for the "A" and "D" EDG were repaired.
3. Operations Management shall conduct a rolldown of the event focusing on expectations regarding the precaution requiring all personnel to keep the control room informed of incomplete or unsatisfactorily performed procedure steps and the importance of self-checking during data collection. (June 28, 1996)
4. Review of this event will be included in Operational Experience Feedback training for the Operations department. (August 16, 1996)