



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

Nuclear Business Unit

DEC 31 1996

LR-N96431

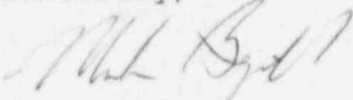
U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

HOPE CREEK GENERATING STATION  
DOCKET NO. 50-354  
UNIT NO. 1  
LICENSEE EVENT REPORT NO. 96-027-00

Dear Sir:

This Licensee Event Report entitled "Engineered Safety Feature Actuation - Unplanned Automatic Start of the "A" Safety Auxiliaries Cooling System Pump Due to Personnel Error" is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(iv).

Sincerely,

  
Mark Bezilla  
General Manager,  
Hope Creek Operations

070075

RAR/mrh  
SORC Mtg. 96-118  
C Distribution  
LER File

9701070216 970102  
PDR ADOCK 05000354  
S PDR

The power is in your hands.

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Attachment A

There are no new commitments being made from Public Service Electric and Gas Company to the Nuclear Regulatory Commission relative to LER 354/96-027-00.

## LICENSEE EVENT REPORT (LER)

(See reverse for required number of

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)

digits/characters for each block)

Hope Creek Generating Station

DOCKET NUMBER (2)

05000354

PAGE (3)

1 OF 4

TITLE (4)

Engineered Safety Feature Actuation - Unplanned Automatic Start of the "A" Safety Auxiliaries Cooling System Pump Due to Personnel Error

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
12	02	96	96	-- 027	-- 00	01	02	97	FACILITY NAME	DOCKET NUMBER
										05000
									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)		100	20.2201(b)		20.2203(a)(2)(v)		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)		X 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

TELEPHONE NUMBER (Include Area Code)

Robin Ritzman, Lead Engineer - Hope Creek Licensing

(609) 339-1445

## COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

## SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
				XX	XX	XX

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

On 12/2/96, at 1658, a Nuclear Controls Operator (NCO) was swapping the Safety Related Panel Room Chilled Water System from the "B" train to the "A" in accordance with the normal operating procedure. The NCO failed to perform a step that included a requirement to put the "A" Technical Support Center (TSC) Chilled Water Pump in the manual control mode. When the operator depressed the stop push-button for the operating "B" Chilled Water Pump, both the "A" TSC Chilled Water Pump and the "A" Safety Auxiliaries Cooling System (SACS) Pumps automatically started per design. The "A" SACS Pump was secured and placed in automatic mode. All plant equipment responded as expected. Corrective actions included counseling and remedial training for the NCO, a discussion of lessons learned with control room personnel, and an enhancement to the method of place keeping used for normal operating procedures.

On 12/2/96, at 2000, a four hour notification was made in accordance with 10CFR50.72(b)(2)(ii). This event is being reported pursuant to 10CFR50.73(a)(2)(iv) as an event that resulted in an invalid actuation of an Engineered Safety Feature.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Hope Creek Generating Station	05000354	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		96	-- 027	-- 00	

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)  
Technical Support Center Ventilation, EIIS Identifier {KM}  
Safety Auxiliaries Cooling System, EIIS Identifier {CC}

IDENTIFICATION OF OCCURRENCE

Event Date: December 2, 1996  
Report Date: January 2, 1997  
Problem Report: 961202204

CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 1 (POWER OPERATIONS)  
Reactor Power 100%

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

DESCRIPTION OF OCCURRENCE

On December 2, 1996, at 1658, a Nuclear Controls Operator (NCO - licensed operator) was swapping the Safety Related Panel Room Chilled Water System from the "B" train to the "A" in accordance with the normal operating procedure. The NCO failed to perform a step that included a requirement to put the "A" Technical Support Center (TSC) Chilled Water Pump in manual control mode. When the operator depressed the stop push-button for the operating "B" TSC Chilled Water Pump, both the "A" TSC Chilled Water Pump and the "A" Safety Auxiliaries Cooling System (SACS) Pumps automatically started per design. The "A" SACS Pump was secured and placed in automatic mode. All plant equipment responded as expected.

On December 2, 1996, at 2000, a four hour notification was made in accordance with 10CFR50.72(b)(2)(ii).

This event is being reported pursuant to 10CFR50.73(a)(2)(iv) as an event that resulted in an invalid actuation of an Engineered Safety Feature (ESF).

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

ANALYSIS OF OCCURRENCE

The TSC Cooling units receive chilled water from the Class 1E Panel Room Chilled Water System. This system is a 100% redundant closed loop cooling system consisting of two independent cooling loops, one of which operates during all modes of plant operation. Cooling is provided to the Class 1E panel room, the TSC, and the Remote Shutdown Panel Room. Cooling water for the chiller condensers is provided by the associated SACS loop. In a normal configuration, one chilled water loop operates while the other is in standby. The circulating pump in the standby loop is maintained in the auto control mode. When in this mode, the standby pump will start automatically upon receipt of a low chilled water flow signal from the opposite loop. This automatic start feature is disabled by placing the chilled water pump in manual control mode. When a TSC Chilled Water Pump starts, a signal is generated that will start the associated SACS pump if it is in auto mode.

In this incident, the operator failed to follow procedural steps to place the standby Chilled Water Pump ("A") in manual mode prior to stopping the operating Chilled Water Pump ("B") during a loop swap. The standby pump started automatically due to low flow on the opposite loop as described above. The "A" SACS Pump then started automatically upon receipt of the signal from the "A" Chilled Water Pump start.

PREVIOUS OCCURRENCES

There have been no ESF actuations caused by a failure to follow procedures in the past two years. LERs 95-040 and 95-041 discuss ESF actuations that were caused by procedural deficiencies, but could have been prevented by a questioning attitude by operations personnel. The corrective actions associated with these events focused on correcting the procedures and improving the questioning attitude. These corrective actions could not be expected to have prevented this event.

CAUSE OF OCCURRENCE

The cause of this event is personnel error in that the NCO did not follow the written operating procedure. The procedure was adequate as written. The procedure step was missed because neither adequate place keeping methods nor the "STAR" (Stop, Think, Act, Review) principle were used when operating plant equipment.

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ASSESSMENT OF SAFETY CONSEQUENCES

The Safety Related Panel Room Chilled Water System is a subsystem of the Control Area Chilled Water System which provides chilled water to the Class 1E panel room and Technical Support Center (TSC) air conditioning units, and the remote shutdown panel room cooling units. The starting of a chilled water circulating pump initiates an auto-start signal to the appropriate SACS pump to ensure that sufficient heat removal capacity is provided for the SACS loop that provides cooling to the chiller associated with that chilled water circulating pump. In this event, the SACS Pump auto-started and satisfactorily performed its designed safety function. Therefore, the safety consequences associated with this event were minimal and are limited to an unnecessary challenge to an ESF component as a result of an invalid actuation.

CORRECTIVE ACTIONS

The NCO involved in this event received remedial training at the Nuclear Training Center. This included technical training and training in the use of the "STAR" principle.

The NCO involved in this event was counseled in accordance with the established disciplinary policy.

An enhanced method of place keeping has been implemented for use while performing normal operating procedures.

The lessons learned from this event, emphasizing the expectations for verbatim compliance with procedures and use of the new place keeping techniques, were provided to Control Room personnel.