



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

Nuclear Business Unit

JAN 08 1996

LR-N96007

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 95-038-00

This Licensee Event Report entitled "Failure to comply with required action statement upon removal of failed snubber on the RHR Shutdown Cooling Line" is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(i)(B).

Sincerely,

Mark E. Reddemann
General Manager -
Hope Creek Operations

Attachment LER
SORC Mtg. 96-002

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PDR ADOCK 05000354
S PDR

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The power is in your hands.

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.

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TITLE (4)
Failure to comply with required action statement upon removal of failed snubber on the RHR Shutdown Cooling Line

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
11	27	95	95	-- 038	-- 00	01	07	95	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)								
POWER LEVEL (10)	0	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 G. Daves	TELEPHONE NUMBER (Include Area Code) (609) 339-3071
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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
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On December 7, 1995, snubber 1-P-BC-049-H042, which had been inoperable for ten (10) days, was identified as supporting both the 'A' and 'B' loops of Residual Heat Removal (RHR) shutdown cooling. The applicable Technical Specification action statements had not been entered. Snubber 1-P-BC-049-H042 is located on the RHR shutdown cooling common suction piping, downstream of the drywell penetration. The snubber had been removed for testing on November 27, 1995 and found to be inoperable. An engineering evaluation was initiated to evaluate the root cause of this failure, as well as two (2) previous failures, prior to reinstalling the snubber. The root cause of not entering the appropriate Technical Specification action statement was the incorrect assignment of the Limiting Condition for Operation (LCO) to snubbers supporting the RHR shutdown cooling suction line. The repeat snubber failure is attributed to ineffective corrective actions following previous failures. Corrective actions include ensuring assignment of the correct LCO to snubber work packages and procedure revisions to the RHR system operating procedure.

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PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor (BWR/4)
Residual Heat Removal, EIIIS Identifier: BO

IDENTIFICATION OF OCCURRENCE

TITLE (4): Failure to comply with required action statement upon removal of failed snubber on the RHR Shutdown Cooling Line

Event Occurrence: 11/27/95
Event Time: N/A
Discovery Date: 12/08/95

CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 5 (Refueling)
Reactor Power 0% of rated

DESCRIPTION OF OCCURRENCE

On November 25, 1995 at 0517 hours, following entry into Operational Condition (OPCON) 5, the 'B' channel outage window was opened, permitting all associated components to be removed from service.

On November 27, 1995, all Residual Heat Removal (RHR) snubber work packages associated with 'B' channel work were presented to work control for Nuclear Shift Supervisor (NSS) approval to work, including a work package for snubber 1-P-BC-049-H042. The NSS reviewing the work packages acknowledged that the work packages had been assigned to the 'B' loop outage window. The assignment of work packages to prestaged action statements had been previously reviewed by operations department Senior Reactor Operator (SRO) licensed personnel. The NSS, confident in the SRO preoutage review of action statement assignments, approved the work packages.

Snubber 1-P-BC-049-H042 is located on the RHR shutdown cooling common system piping downstream of the drywell penetration. It was removed for testing on November 27, 1995 and found to be inoperable. An engineering evaluation was initiated to evaluate the root cause of this failure, as well as two previous failures during refueling outage (RFO) 4 and RFO5.

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DESCRIPTION OF OCCURRENCE (cont'd)

On December 7, 1995, snubber 1-P-BC-049-H042 was recognized as supporting both the 'A' and 'B' loops of RHR shutdown cooling. The Senior Nuclear Shift Supervisor (SNSS) was informed of the effects on both RHR shutdown cooling loops. Technical Specifications 3.7.5 and 3.9.11.1 were then entered.

Technical Specification 3.7.5, 'Snubbers,' requires that with one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to operable status...or declare the attached system inoperable and follow the appropriate action statement for that system. Technical Specification 3.9.11.1, 'Residual Heat Removal and Coolant Circulation,' requires at least one shutdown cooling mode loop of the residual heat removal (RHR) system be operable.

Failure to take the required actions within the time specified by Technical Specifications 3.7.5 and 3.9.11.1 resulted in a condition prohibited by the Hope Creek Generating Technical Specifications and is reportable under 10CFR50.73(a)(2)(i)(B).

ANALYSIS OF OCCURRENCE

Technical Specification Non-compliance

Hope Creek Generating Station has utilized prestaged action statements to support work control during refueling outages. The prestaged action statements were created by operations department SROs based upon system or loop outage windows. Recurring work packages are assigned to these action statements to eliminate administrative burden on the NSS during an outage. The use of prestaged action statements to support snubber inspections began during RFO3. An error was made by assigning all of the RHR shutdown cooling common suction piping snubbers to a prestaged action statement associated with only the 'B' shutdown cooling loop.

During the preparation for RFO6, the preoutage review of the work activities was inadequate. The review of recurring tasks for snubber inspections relied on previously established prestaged action statements. The preoutage review of planned snubber work did not include an evaluation of the work package and associated supporting documentation to re-verify assignment to the prestaged action statement.

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ANALYSIS OF OCCURRENCE (cont'd)

As a result, the snubber 1-P-BC-049-H042 continued to be incorrectly assigned to the 'B' loop prestaged action statement. Work packages, for work other than snubber inspections, included a review and preapproval of the entire work package.

During the investigation of this occurrence, the Operations department has identified that this same condition probably occurred during RFO4. During RFO4, snubber 1-P-BC-049-H042 failed the inservice inspection test. The snubber was removed from service for eight (8) days. During this period of time, RHR shutdown cooling was in service. The incorrect action statement assignment was not identified at that time because the Technical Specification non-compliance was not recognized.

The failure and rework of snubber 1-P-BC-049-H042 during RFO5 was accomplished within the 72 hour allowed out-of-service time permitted by Technical Specification 3.7.5.

Repeat Failure Analysis

Snubber 1-P-BC-049-H042 has been discovered to be failed during RFO4, RFO5, and RFO6. Following the second failure of snubber 1-P-BC-049-H042, the Mechanical Engineering organization conducted an evaluation to determine probable cause and corrective actions to prevent future damage to the RHR shutdown cooling snubbers. The evaluation, dated October 14, 1994, included recommended changes to HC.OP-SO.BC-001, 'RHR System Operating Procedure,' for initial system filling and venting and actions to prevent system transients following a system shutdown or isolation. These recommendations were not entered into the corrective action program and were consequently not implemented.

The Nuclear Business Unit's (NBU's) Corrective Action Program (CAP) has been significantly enhanced to provide for the timely identification, evaluation, and corrective action for conditions adverse to quality. Corrective actions are assigned to a responsible manager with a scheduled completion date. The corrective action tracking record cannot be closed until all actions are complete. Due date extensions are strictly controlled and all records receive a closure review by the responsible manager to verify that specified actions are tracked and that actions specified have been completed and are effective. Prior to final closure, the Corrective Action Group performs a review to verify all specified actions, including effectiveness reviews, have been properly completed.

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ROOT CAUSE OF OCCURRENCES

The root cause of these failures to enter the Technical Specification action statements is the failure to properly assign the RHR shutdown cooling common suction line snubbers to the correct prestaged action statement. Contributing factors to the occurrences are: 1) failure to verify the action statements assignment against controlled technical information (i.e., piping and instrumentation drawings (P&IDs) or system isometric drawings) during RFO4, RFO5, and RFO6, and 2) failure to properly verify the impact of a work package prior to approval to work.

SAFETY SIGNIFICANCE

The safety significance of this occurrence relative to RHR shutdown cooling and its ability to remove decay heat from the reactor core was minimal.

Technical Specification 3.9.11.1 requires that at least one RHR shutdown cooling loop be operable and in operation. The associated action statement requires that if no RHR shutdown cooling loops are operable, within one hour and at least every 24 hours thereafter, demonstrate that at least one alternate method be available to remove heat. Though the system was technically inoperable, an engineering evaluation has demonstrated that the system was capable of removing decay heat considering all design basis loading conditions including seismic. Additionally, during these times the plant was in OPCON 5 with the vessel cavity flooded and the fuel pool gates removed. In this configuration, the Fuel Pool Cooling system functions as an alternate decay heat removal system. With respect to the integrity of the common suction piping, an engineering evaluation concluded that: 1) pipe stresses are below design basis limits including seismic loading, and 2) remaining supports and welds are within their design limits.

PREVIOUS OCCURRENCES

A review of previously documented occurrences did not identify any other Technical Specification action statements that had not been entered due to a prestaged action statements being improperly assigned to an outage work package. As discussed previously, this condition probably existed in RFO4 when snubber 1-P-BC-049-H042 was removed for eight (8) days while RHR shutdown cooling was in service. This previous occurrence is being reported in this LER.

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CORRECTIVE ACTIONS

All snubbers on the RHR shutdown cooling suction piping have been restored to their original design condition.

All remaining snubber work packages have been reviewed by the ISI supervisor and the Operations department to ensure assignment of the correct prestaged action statement. No additional errors were identified. This corrective action scope is based upon the fact that work packages for other than snubber inspections included a review and preapproval of the entire work package.

The method for conducting a preoutage review of snubber work packages will be revised to ensure adequate communication between specific work groups and operations department personnel. (Prior to RFO7)

The latest snubber failure has been entered into the new Corrective Action Program. The root cause analysis will be completed and corrective actions to preclude repeat failures will be identified and assigned. (1/12/96)