

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9412230208 DOC. DATE: 94/12/16 NOTARIZED: NO DOCKET #
 FACIL: 50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light Co. 05000261
 AUTH. NAME AUTHOR AFFILIATION
 JURY, K.R. Carolina Power & Light Co.
 YOUNG, D.E. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 94-018-00: on 940809, TS 3.0: conatinment spray sys. Caused by inadequate concentration of Na Hydroxide during configuration. CS sys was restored to operable status upon completion of sampling & pump run performed. W/941216 ltr.

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10 CFR 50.73

Carolina Power & Light Company
Robinson Nuclear Plant
PO Box 790
Hartsville SC 29551

Robinson File No.: 13510C
Serial: RNP/94-1960

DEC 16 1994

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23
LICENSEE EVENT REPORT NO. 94-018-02

Gentlemen:

The enclosed supplemental Licensee Event Report (LER), is submitted in accordance with 10 CFR 50.73. This supplement provides additional information concerning the corrective actions for the reported condition. The revised information is identified by a right hand margin bar.

Very truly yours,

Dale E. Young
Plant General Manager

DTG:dtg
Enclosure

c: Mr. S. D. Ebnetter, Regional Administrator, USNRC, Region II
Ms. B. L. Mozafari, USNRC Project Manager, HBRSEP
Mr. W. T. Orders, USNRC Senior Resident Inspector, HBRSEP

NRC FORM 366
(5-92)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), 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)

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2

DOCKET NUMBER (2)

050-261

PAGE (3)

1 OF 4

TITLE (4)

TECHNICAL SPECIFICATION 3.0: CONTAINMENT SPRAY SYSTEM

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
08	09	94	94	-- 018 --	02	12	16	94	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)								
POWER LEVEL (10)	100	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
		20.405(a)(1)(iii)			X 50.73(a)(2)(i)			50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)		
20.405(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(x)				

LICENSEE CONTACT FOR THIS LER (12)

NAME

K. R. Jury: Manager - Licensing/Regulatory Programs

TELEPHONE NUMBER (Include Area Code)

(803) 383-1363

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).

X

NO

EXPECTED SUBMISSION DATE (15)

MONTH

DAY

YEAR

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

On August 9, 10, and September 30, 1994, with H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2 operating at 100% power, the Containment Spray (CS) system was declared inoperable during Technical Specifications (TS) scheduled testing and Spray Additive Tank (SAT) eductor line sampling. These evolutions require that the Refueling Water Storage Tank be lined-up to the SAT eductor line that supplies Sodium Hydroxide to the CS pumps, thereby rendering the system incapable of performing its Iodine removal function under certain accident conditions. This configuration does not have an action required by the HBRSEP TS; therefore, TS Section 3.0 was entered. The CS system was declared inoperable between August 9, and 10, 1994, a total of six times; the CS system was declared inoperable four times on September 30, 1994. An operator was located in close proximity to the valves throughout the August 1994 testing and, although not procedurally directed, could have performed manual action should the system have been required to perform its intended function. During the September testing, procedural direction for manual action was provided to the operator. Upon completion of the testing, the system was restored to its normal configuration. These events are reported pursuant to 10 CFR 50.73(a)(2)(i)(B) as operation in a condition prohibited by TS.

NRC FORM 366A
(5-92)

U.S. NUCLEAR REGULATORY COMMISSION

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TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
H. B. ROBINSON, UNIT 2	050-261	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		94	018	02	

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

I. DESCRIPTION OF EVENT

On August 9 and September 30, 1994, H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2 was operating at 100% power. At 1728 hours on August 9, the Containment Spray (CS) system (EIIS Code: BE) was declared inoperable to perform portions of the Technical Specifications (TS) required Operations Surveillance Test (OST) 352, "Containment Spray System Component Test." In order to conduct this test, line-up of the Refueling Water Storage Tank (RWST) (EIIS Code: TK) to the Spray Additive Tank (SAT) (EIIS Code: TK) eductor (EIIS Code: EDR) line is necessary to conduct sampling of the SAT eductor line's Sodium Hydroxide concentration prior to running the CS pumps. This configuration does not provide for an adequate Sodium Hydroxide concentration during all accident scenarios for which CS is required. Sodium Hydroxide is added to the borated water used in the CS system to remove Iodine from the containment atmosphere after certain postulated accidents. The CS system is also placed in this configuration during the individual pump runs and during post-run sampling of the SAT eductor line. Since this configuration does not have an action required by the HBRSEP TS, TS Section 3.0 was entered. Accordingly, TS Section 3.0 was entered on six occasions between August 9, and 10, 1994 when the CS system was declared out of service to accommodate the pump runs and sampling evolutions.

On September 30, 1994, at 0254 hours the CS system was declared inoperable to perform portions of OST 352 and OST 355, "Containment Spray System Integrity Test." Performance of OST 355 also requires the RWST to be lined up to the SAT eductor line for sampling. As a result, TS Section 3.0 was entered on four occasions to accommodate the pump runs and sampling evolutions on this date also.

II. CAUSE OF EVENT

The cause of this situation was that while the RWST is lined-up to the SAT eductor line while performing sampling or running either CS pump as required by TS, the configuration is outside of that allowed by TS, resulting in a condition prohibited by TS.

During this CS system configuration, the system does not have an adequate concentration of Sodium Hydroxide if CS actuation is necessary, since an additional flow path from the RWST to the SAT eductor line exists. During the times the CS system was placed in this configuration, the system was declared inoperable based upon the definition of operability in TS Section 1.3.

NRC FORM 366A
(5-92)

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
H. B. ROBINSON, UNIT 2	050-261	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 4
		94	018	02	

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Previous interpretations of TS Sections 3.3.2.1 and 3.3.2.2 assumed that the requirement to test the CS pumps allowed the actions necessary to perform the TS required surveillance tests at quarterly and annual intervals. A recent re-interpretation of TS Sections 1.3, 3.3.2.1, and 3.3.2.2 was applied to the performance of the TS required CS pump operability and integrity tests. As a result, a condition prohibited by TS was determined to exist.

III. ANALYSIS OF EVENT

During the times that each CS pump was being run and that sampling was being conducted, the spray flow path was not obstructed and automatic start features were not inhibited. During the September 30, 1994 test, each train of CS was sequentially rendered inoperable due to other test conditions. In both cases, due to system configuration during these evolutions, the concentration of Sodium Hydroxide available for introduction into the containment atmosphere is reduced, since an additional flow path from the RWST to the SAT eductor line exists. The periods of inoperability ranged from 3 minutes to 80 minutes. Additionally, an operator was located in close proximity to the RWST isolation valve throughout the test and, although not procedurally directed during the August 1994 testing, could have taken manual action should the CS system and SAT been required to perform their intended function. As a corrective action for the original LER, procedural guidance was developed and available to the operator during the September 30, 1994, testing, had a CS actuation occurred. At all times during these evolutions, one train of the pressure suppression function of CS was operable. As a result, the safety significance of having the CS system in this configuration, was low.

This event is reported pursuant to 10 CFR 50.73(a)(2)(i)(B) as operation in a condition prohibited by TS.

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(5-92)

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
H. B. ROBINSON, UNIT 2	050-261	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		94	018	02	

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IV. CORRECTIVE ACTIONS

The CS system was restored to operable status upon completion of each sampling and each pump run evolution that was performed.

An evaluation was performed that determined the acceptability of operator actions to compensate for the time that the automatic CS system functions are degraded. We have determined that there is sufficient time for recognition of and the manual operator actions to mitigate, the design basis accident scenarios for which CS actuation is required. Procedural guidance will be developed to specify these manual operator actions such that the system will remain operable during performance of the surveillance test. The procedure will be revised to incorporate this guidance prior to the next scheduled performance of this surveillance test.

In order to minimize the amount of time that the system is placed in this configuration, OST-352 was also revised such that the RWST to eductor line valve is not opened while operating the CS pumps. This change was completed prior to the performance of the September 30, 1994 surveillance tests and resulted in minimizing the time that the plant was in TS Section 3.0.

V. ADDITIONAL INFORMATION

A. Failed Component Information

None

B. Previous Similar Events

None