

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9104020377 DOC.DATE: 91/03/28 NOTARIZED: NO DOCKET #
 FACIL:50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
 AUTH.NAME AUTHOR AFFILIATION
 WALTERS,G.A. Carolina Power & Light Co.
 SHEPPARD,J.J. Carolina Power & Light Co.
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 91-002-00:on 910228,reactor trip due to Lo-Lo steam generator level.Caused by personnel error.Terminate draining of steam generator & commence refill using auxiliary feedwater sys & licensee counseled.W/910328 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD2-1 LA	1 1	PD2-1 PD	1 1
	LO,R	1 1		
INTERNAL:	ACNW	2 2	AEOD/DOA	1 1
	AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2
	NRR/DET/ECMB 9H	1 1	NRR/DET/EMEB 7E	1 1
	NRR/DLPQ/LHFB11	1 1	NRR/DLPQ/LPEB10	1 1
	NRR/DOEA/OEAB	1 1	NRR/DREP/PRPB11	2 2
	NRR/DST/SELB 8D	1 1	NRR/DST/SICB 7E	1 1
	NRR/DST/SPLB8D1	1 1	NRR/DST/SRXB 8E	1 1
	REG FILE <u>02</u>	1 1	RES/DSIR/EIB	1 1
	RGN2-FILE 01	1 1		
EXTERNAL:	EG&G BRYCE,J.H	3 3	L ST LOBBY WARD	1 1
	NRC PDR	1 1	NSIC MAYS,G	1 1
	NSIC MURPHY,G.A	1 1	NUDOCS FULL TXT	1 1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,
 ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION
 LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED
 TOTAL NUMBER OF COPIES REQUIRED: LTTR 31 ENCL 31

AD 4/20



Carolina Power & Light Company

ROBINSON NUCLEAR PROJECT DEPARTMENT
POST OFFICE BOX 790
HARTSVILLE, SOUTH CAROLINA 29550

MAR 28 1991

Robinson File No.: 13510C

Serial: RNP/91-0752

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 91-002

Gentlemen:

The enclosed Licensee Event Report (LER) is submitted in accordance with 10CFR50.73 and NUREG-1022 including Supplements No. 1 and 2.

Very truly yours,

J. J. Sheppard
General Manager
H. B. Robinson S. E. Plant

GAW:td

Enclosure

cc: Mr. S. D. Ebnetter
Mr. L. W. Garner
INPO

9104020377 910328
PDR ADCK 05000261
S PDR

JE27
11

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2										DOCKET NUMBER (2) 0 5 0 0 0 2 6 1				PAGE (3) 1 OF 4		
TITLE (4) REACTOR TRIP DUE TO LO-LO STEAM GENERATOR LEVEL																
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	2	2	8	9	1	9	1	0	0	2	0	0	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) N		20.402(b)				20.405(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)		73.71(b)				
POWER LEVEL (10) 0 0 0		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 (Specify in Abstract below and in Text, NRC Form 366A)				
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)						
		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 Gary A. Walters, Regulatory Compliance										TELEPHONE NUMBER 8 0 3 3 8 3 - 1 1 1 1 2						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD						
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input type="checkbox"/> NO				

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

ABSTRACT

On February 28, 1991, at 0102 hours with Unit No. 2 in cold shutdown, an automatic reactor trip was received from a lo-lo level in steam generator (S/G) "A". The cause of the trip is attributed to personnel error associated with the S/G draindown which was in progress. Although the plant was in cold shutdown, the reactor trip breakers were closed to allow the performance of control rod drop testing. All three S/Gs were being drained to clear high levels so as to allow feedwater isolation resets and to obtain normal narrow range level indication. The control operator was aware that the lo level alarm had come in but did not anticipate the narrow range S/G level dropping as fast as it did. Throughout this event, LT-476, one of three narrow range level instruments on S/G "A" was off scale high thus causing the high level alarm to be locked in. The operator has been counseled regarding his actions in this event and this event continues to be evaluated via the plant Corrective Action Program. This event was reported via the Emergency Notification System at 0138 hours pursuant to 10CFR50.72(b)(2)(ii). This Licensee Event Report is submitted pursuant to 10CFR50.73(A)(2)(iv).

NRC Form 364A
(9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/86

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)	
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	0 5 0 0 0 2 6 1	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	0 2	OF 0 4
		9 1	- 0 0 2	- 0 0		

TEXT (If more space is required, use additional NRC Form 364A's) (17)

I. Description of Event

On February 28, 1991, Unit No. 2¹ was in cold shutdown at 0% reactor power for a scheduled refueling outage. Various surveillance tests were in progress as part of post-refueling outage preparations for plant startup. Control rod drop testing was in progress per surveillance test procedure, EST-048. Control rod shutdown bank "A" had been withdrawn for performing the rod drop tests. One rod had already been dropped and the other seven rods in this bank were still withdrawn. The licensee control operator involved with the rod drop testing was also involved with other evolutions taking place concurrently such as Nuclear Instrumentation Source, Intermediate, and Power Range Testing, Nuclear Instrumentation Comparator Channel Testing, and the draining of the steam generators. The steam generators were being drained in order to clear high level alarms which would then allow feedwater isolation resets and obtain normal narrow range level indication. Throughout the event, narrow range level instrument (LT-476) on S/G "A" was off scale high causing the S/G high level alarm to be locked in. Each S/G has three narrow range level instruments.

At approximately 0051 and 0052 hours, the lo level bistables were received for "A" S/G. The control operator saw the lo level alarm come in. However, draining of the "A" S/G continued until 0102 when 2/3 lo-lo level bistables were received and a reactor trip occurred. This is considered to be a human performance error. The operator was attempting to monitor the EST-048 progress and did not anticipate that the narrow range level would drop as quickly as it did. The remaining seven rods in shutdown bank "A" inserted. Emergency Operating Procedure Path-1 was entered and the trip was verified. The plant was confirmed to be in a stable condition (remained at cold shutdown). At 0115 hours, draining of the steam generators was terminated. Other than the Reactor Protection System (RPS) actuation, no other automatic safeguards actuations occurred nor were any anticipated since the plant was in cold shutdown for a scheduled refueling outage.

At 0138 hours, notification was made to the NRC via the Emergency Notification System. This notification was made pursuant to 10CFR50.72(b)(2)(ii) as an event or condition that resulted in automatic actuation of the Reactor Protection System (RPS).

¹ H. B. Robinson Steam Electric Plant Unit No. 2 is a Westinghouse pressurized water reactor power plant in commercial operation since March 1971.

NRC Form 366A
(9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)	
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	0 5 0 0 0 2 6 1 9 1	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		—	0 0 2	— 0 0	0 3	OF 0 4

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

II. Cause of Event

The cause of this event was personnel error. The licensee control operator made a cognitive error in failing to recognize actual plant conditions. There was not an adequate response to the 10 level alarm in S/G "A". Draining of the steam generators should have been terminated prior to reaching the S/G 10-10 level setpoint. The coincidence of 2/3 10-10 level bistable setpoints being reached resulted in the reactor trip. The licensee control operator stated that he was distracted by the numerous activities taking place in the control room. These activities included the control rod drop testing, the nuclear instrumentation testing, and the draining of the steam generators.

III. Analysis of Event

This event is being reported under 10CFR50.73(A)(2)(iv), "Any event or condition that resulted in manual or automatic actuation of any engineered safety feature (ESF), including the Reactor Protection System (RPS)." Although this event resulted in an RPS actuation, this occurrence has minimal overall safety significance. The plant was in a cold shutdown condition and the draining evolution was terminated. The level of steam generator "A" was raised using the auxiliary feedwater system to allow the continuation of surveillance testing.

A steam generator 10-10 level trip at cold shutdown conditions is bounded by the Loss of Normal Feedwater Flow Analysis for power operation as described in the Updated Final Safety Analysis Report (FSAR).

The circumstances surrounding this event would not be anticipated during power operation. There was no feedwater flow taking place prior to the event. The steam generators were being drained to establish narrow range level indication and to allow feedwater isolation valve resets. These actions are not performed at power operation.

NRC Form 366A
(9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1) H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 6 1	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 1	— 0 0 2	— 0 0	0 4	OF 0 4

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

IV. Corrective Actions

As stated above, the immediate corrective actions were to terminate the draining of the steam generator and to commence refill using the auxiliary feedwater system.

The licensee control operator has been appropriately counseled regarding his actions in this event. Management has and continues to stress the importance of professionalism, formal communications, and the necessity for attention to detail by all licensee personnel and in particular, licensed operators at the control board.

This event continues to be evaluated via the plant Corrective Action Program.

V. Additional Information

None