

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9106250064      DOC. DATE: 91/06/20      NOTARIZED: NO      DOCKET #  
 FACIL: 50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina      05000400  
 AUTH. NAME      AUTHOR AFFILIATION  
 VERILLI, M.      Carolina Power & Light Co.  
 RICHEY, R.B.      Carolina Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 91-009-00: on 910521, AFW actuation occurred due to steam generator Hi-Hi Level alarm inadvertently generated during troubleshooting. Caused by personnel error. Counseling for technicians & reviewing incident. W/910620 ltr.

DISTRIBUTION CODE: IE22T      COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4  
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: Application for permit renewal filed. 05000400

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	MOZAFARI, B.	1	1					
INTERNAL:	ACNW	2	2		ACRS	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/LHFB10	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/SICB8H3	1	1		NRR/DST/SPLB8D1	1	1	
	NRR/DST/SRXB 8E	1	1		<u>REG FILE</u> 02	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 MURPHY, G.A	1	1	
	NSIC POORE, W.	1	1		NUDOCS FULL TXT	1	1	

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Carolina Power & Light Company

P.O. Box 165 • New Hill, N.C. 27562

R. B. RICHEY  
Vice President  
Harris Nuclear Project

JUN 20 1991  
Letter Number: HO-910092 (0)

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

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1  
DOCKET NO. 50-400  
LICENSE NO. NPF-63  
LICENSEE EVENT REPORT 91-009-00

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours

R. B. Richey  
Vice President  
Harris Nuclear Project

RBR:dmw

Enclosure

cc: Mr. S. D. Ebnetter (NRC - RII)  
Ms. B. L. Mozafari (NRC - RII)  
Mr. J. E. Tedrow (NRC - SHNPP)

MEM/LER91-009/1/0S1

9106250064 910620  
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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) **Shearon Harris Nuclear Power Plant - Unit #1** DOCKET NUMBER (2) **0 5 0 0 0 4 0 0 1** PAGE (3) **1 OF 0 3**

TITLE (4) **AFW actuation due to Steam Generator Hi-Hi Level alarm that was inadvertently generated during troubleshooting**

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	5	91	91	009	00	0	6	91			0 5 0 0 0

OPERATING MODE (9) **2**

POWER LEVEL (10) **0 0 0**

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **Michael Verrilli - Regulatory Compliance Specialist** TELEPHONE NUMBER **9 1 9 3 6 2 - 2 3 0 3**

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

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

**ABSTRACT:**

On 5/21/91, troubleshooting of the Steam Generator (SG) level instrumentation resulted in the generation of a Hi-Hi SG level signal. This caused a Feed Water Isolation Signal which by design tripped the running Main Feed Pump and started both motor driven Auxiliary Feed Water Pumps. The control room staff immediately took actions to verify proper system response and stabilize SG levels. The cause of this event was personnel error on the part of the maintenance personnel performing the trouble shooting. Corrective actions will consist of counseling the involved technicians, reviewing the incident with other appropriate personnel and developing a procedure that provides specific guidance for troubleshooting activities.

This condition is being reported as an unplanned Engineered Safety Feature Actuation in accordance with 10CFR50.73(a)(2)(iv).



**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Shearon Harris Nuclear Power Plant Unit # 1	DOCKET NUMBER (2)  0   5   0   0   0   4   0   0	LER NUMBER (6)			PAGE (3)		
		YEAR 91	SEQUENTIAL NUMBER 009	REVISION NUMBER 00	02	OF	03

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

**EVENT DESCRIPTION:**

On 5/21/91 the plant was in Mode-2 following a refueling outage. Troubleshooting was being conducted on Steam Generator (SG) level instrument LT-475 to determine why its control room indication was reading approximately six percent higher than the other three channels. The associated bistables for LT-475 were in their tripped condition as required. Maintenance personnel verified that the transmitter and level loop had been recently calibrated with satisfactory results, so a differential pressure gauge was installed across the instrument to determine if the reference leg was adequately filled. When the equalizing valve on LT-475 was opened, an unanticipated depressurization occurred in the reference leg for LT-473. This was due to both instruments sharing a common reference leg. This depressurization resulted in an increase of the instruments level signal to its Hi-Hi setpoint. This caused a Feed Water Isolation Signal which by design tripped the running Main Feed Pump. Both motor driven Auxiliary Feed Water (AFW) pumps started as required. The control room staff took immediate actions to verify proper system response, stabilize SG levels and communicate with the personnel performing the trouble shooting. Test equipment was then removed from the level transmitter and all instrument valves were returned to there pre-test alignment.

There have been no previous reports submitted regarding an automatic AFW actuation due to personnel error.

**CAUSE:**

The cause of this event was personnel error on the part of the maintenance technicians trouble shooting the SG level instruments. The individuals involved were not aware that level instruments LT-475 and LT-473 had a common reference line. Had the Loop Calibration procedure, which includes instructions for removing and returning the transmitter to service, been utilized as a reference, this event may have been prevented.

**SAFETY SIGNIFICANCE:**

There were no significant safety consequences as a result of this event. The auxiliary feed water system started as required to supply adequate feed flow to the steam generators and provide for primary system heat removal.

This condition is being reported as an unplanned Engineered Safety Feature Actuation in accordance with 10CFR50.73(a)(2)(iv).

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Shearon Harris Nuclear Power Plant Unit #1	DOCKET NUMBER (2)  0   5   0   0   0   4   0   0   0   9   1   -   0   0   9   -   0   0   0   3   OF   0   3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

**CORRECTIVE ACTIONS:**

1. Individuals performing this activity and other members of the work crew have been counselled on this incident.
2. This event will be reviewed by additional maintenance personnel to enhance their awareness of instruments that have common reference lines and to ensure a complete understanding of what type of activities require the use of an approved plant procedure.
3. Additional procedural guidance will be developed to enhance troubleshooting activities.

