ACCELERATED DOCUMENT DISTRIBUTION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9212160030 DOC.DATE: 92/12/11 NOTARIZED: NO DOCKET #
FACIL:50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
AUTH.NAME AUTHOR AFFILIATION
VERRILLI,M. Carolina Power & Light Co.
HINNANT,C.S. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 91-019-01:on 911022,containment ventilation isolated due to spike on radiation monitor,constituting unplanned actuation of ESF component.Special test developed & performed during refueling outage 4.W/921210 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

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-1 LA	1	1	PD2-1 PD	1	1
	LE,N	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/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
	REG FILE 02	1	1	RES/DSIR/EIB	1	1
	RGN2 FILE 01	1	1			
EXTERNAL:	EG&G BRYCE,J.H	2	2	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

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 504-2065) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

A04

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

RIDS/ADDS

CP&L

Carolina Power & Light Company

P.O. Box 165 * New Hill, N.C. 27562

C. S. HINNANT
General Manager - Harris Plant

DEC 1 0 1992

Letter Number: HO-920173

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 91-019-01

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted as revision #1 to LER 91-019. The original report fulfilled the requirement for a written report within thirty (30) days of a reportable occurrence and was in accordance with the format set forth in NUREG-1022, September 1983.

The purpose of this revision is to provide additional information related to the root cause of the event that was recently obtained during Refueling Outage #4.

Very truly yours

C. S. Hinnant
General Manager
Harris Nuclear Project

MV:dmw

Enclosure

cc: Mr. S. D. Ebneter (NRC - RII)
Mr. N. B. Le (NRC - PM/NRR)
Mr. J. E. Tedrow (NRC - SHNPP)
Mr. G. E. Vaughn

MEM/LER92-019/1/0S1

IE22
1/1

NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

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

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 (MNBB 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.

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Shearon Harris Nuclear Power Plant - Unit #1	05000/400	1 OF 3

TITLE (4) Unplanned ESF Actuation (Containment Ventilation Isolation) due to spike on radiation monitor.

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
10	22	91	91	-- 019 --	01	12	11	92		05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1
POWER LEVEL (10)	100

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

	20.402(b)		20.405(c)	X 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)		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	TELEPHONE NUMBER (Include Area Code)
Michael Verrilli	(919) 362-2303

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
B	IL	MON	G063	Y						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

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

On 10/22/91, at 1505 hours, a Containment Ventilation Isolation signal was generated. This constituted an unplanned actuation of an Engineered Safety Feature (ESF) component. The event occurred while removing one of the four containment ventilation radiation monitors from service during surveillance testing. The control room staff immediately verified that all associated containment ventilation components had functioned as required and that no abnormal radiation levels actually existed. The system was then realigned to its normal operating lineup. The cause of the alarm signal was an inadvertent spike on one of the three radiation monitors that remained operable (RM-3561A). Troubleshooting and testing performed during Refueling Outage #4 revealed that this spike occurred due to loose electrical connections and a defective low voltage power supply circuit in the monitors 110 volt supply. These conditions were corrected and the monitor was returned to service. There were no significant safety consequences as a result of this event as the Containment Ventilation System was in the required emergency mode had an actual event occurred. This was originally reported in accordance with 10CFR50.73 (a)(2)(iv) as an unplanned actuation of an ESF component.

EVENT DESCRIPTION:

On 10/22/91, while operating in Mode-1 at 100 percent power, surveillance testing was being conducted on the supply breakers for the four Containment Ventilation Radiation Monitors. This process required securing the power to one radiation monitor at a time, performing an over current trip test on the supply breaker, then restoring the monitor to service. After successful testing and restoration of the first two radiation monitors, the supply breaker for the third monitor (RM-3561C) was opened. At this time, the monitor that had just been placed back into service (RM-3561A) spiked into high alarm. This satisfied the two out of four logic that is required to generate a Containment Ventilation Isolation signal. The control room staff immediately verified that all associated containment ventilation components had functioned as required and that no abnormal radiation levels actually existed. The system was then realigned to its normal operating lineup.

CAUSE:

The cause of this event was the inadvertent spike that resulted in radiation monitor #RM-3561A going into high alarm, which subsequently created the Containment Ventilation Isolation Signal. Troubleshooting and testing to determine why the monitor spiked into high alarm was completed during the recent refueling outage. The root cause was determined to be loose electrical connections and a defective low voltage power supply circuit in the monitors 110 volt supply. These conditions created fluctuations in the supply power to the monitors detector when the adjacent breaker was opened and caused the alarm signal.

SAFETY SIGNIFICANCE:

There were no significant safety consequences as a result of this event. No abnormal radiation levels actually existed and the Containment Ventilation System was in the required emergency mode had an actual event occurred.

This was originally reported in accordance with 10CFR50.73 (a)(2)(iv) as an unplanned actuation of an ESF component.

No events with a similar root cause have been reported.

CORRECTIVE ACTIONS:

A special test was developed and performed during RFO #4, which recreated the initial conditions that caused the radiation monitor alarm signal. It was during this testing that the loose electrical connections and the defective low voltage power supply were identified. Both of these conditions were corrected by replacing the power supply and properly tightening the loose connections. Subsequent testing, which included repeated cycling of the radiation monitor supply breakers, revealed no voltage fluctuations or alarm signals. The other three Containment Ventilation Isolation Radiation Monitors were also checked for deficiencies of this type and were found to have no loose connections or defective power supplies. This was validated by successful calibration testing of all four monitors during RFO #4.

EIIS Information:

Radiation Monitoring System - IL