

# ACCELERATED DOCUMENT DISTRIBUTION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9312030074 DOC DATE: 93/11/22 NOTARIZED: NO DOCKET #  
 FACIL: 50-261 H. B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261  
 AUTH. NAME AUTHOR AFFILIATION  
 CROOK, R. D. Carolina Power & Light Co.  
 PEARSON, M. P. Carolina Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 93-016-00: on 931023, licensee determined that EDG room recirculation damper not opening as designed. Caused by personnel error. Incorrect wiring configuration for EDG room recirculation air damper found. W/931122 ltr.

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

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EXTERNAL:	EG&G BRYCE, J. H	2 2	L ST LOBBY WARD	1 1
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Robinson Nuclear Plant  
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Hartsville SC 29550

NOV 22 1983

Robinson File No: 13510C  
Serial: RNP/93-2903  
(10CFR50.73)

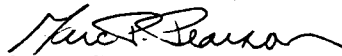
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261  
LICENSE NO. DPR-23  
LICENSEE EVENT REPORT NO. 93-016-00

Gentlemen:

The enclosed Licensee Event Report (LER), is submitted in accordance with  
10 CFR 50.73 and NUREG 1022, Supplements No. 1 and 2.

Very truly yours,

  
Marc P. Pearson  
Plant General Manager

RDC:lst  
Enclosure  
c: Mr. S. D. Ebnetter  
Mr. W. T. Orders  
INPO

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9312030074 931122  
PDR ADOCK 05000261  
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Highway 151 and SC 23 Hartsville SC

JE27

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  
(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.

FACILITY NAME (1)

H. B. ROBINSON, UNIT NO. 2

DOCKET NUMBER (2)

05000 261

PAGE (3)

1 OF 4

TITLE (4)

VENTILATION SYSTEM OUTSIDE DESIGN BASIS DUE TO POSITIVE PRESSURE CONDITION

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	23	93	93	-- 016 --	00	11	22	93	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)							
		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)		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)	X	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

R. DAVID CROOK, SR. SPECIALIST - COMPLIANCE

TELEPHONE NUMBER (Include Area Code)

(803) 383-1179

## 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 October 23, 1993, H. B. Robinson Unit No. 2 was in cold shutdown condition for refueling. During performance of Operations Surveillance Test OST-411, "Emergency Diesel Generator 'B' (Twenty Four Hour Load Test)", licensee personnel determined that the EDG Room recirculation damper was not opening as designed. This configuration resulted in the first floor Auxiliary Building hallway being in a positive pressure condition, and therefore outside the design basis of the system.

The cause of this condition is attributed to personnel error. An incorrect wiring configuration for the EDG Room Recirculation Air Damper, HVS-5, was found which prevented the damper from operating.

This event has no adverse impact on plant safety. During the time period that a positive pressure situation existed, the plant was in cold shutdown condition. During the time of testing, no contaminated material was released to the environment which exceeded 10 CFR 20 limits.

This event is reported pursuant to 10 CFR 50.73(a)(2)(ii) as a condition that was outside the design basis of the plant.

NRC FORM 366A  
(5-92)

U.S. NUCLEAR REGULATORY COMMISSION

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

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
H. B. ROBINSON, UNIT NO. 2	05000261	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		93	-- 016 --	00	

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

I. DESCRIPTION OF EVENT

On October 23, 1993, H. B. Robinson Unit No. 2 was in cold shutdown condition for refueling. During performance of Operations Surveillance Test OST-411, "Emergency Diesel Generator 'B' (Twenty Four Hour Load Test)", licensee personnel raised a question concerning the amount of airflow from the Emergency Diesel Generator (EDG) Room into the Reactor Auxiliary Building hallway. The test had been initiated at 2133 hours and was terminated on October 23, 1993, at 0344 hours. Subsequent investigation revealed that the EDG Room recirculation damper was not opening as designed for the "Winter Mode" of operation when ambient temperature is less than fifty-five degrees F. This configuration resulted in the first floor Auxiliary Building hallway being in a positive pressure condition, and therefore outside the design basis of the system. At the time of the test, the ambient air temperature was below fifty-five degrees F and the ventilation system was in the "Winter Mode" of operation. In this configuration, the EDG Exhaust Fan operates at low speed and the recirculation damper is designed to open whenever the ambient air temperature is below 55 degrees F. This configuration allows the EDG waste heat to warm the exhaust air, of which half is returned to the intake of the EDG Room Supply Fan. Conversely, during the "Summer Mode" of operation (above 55 degrees F) the EDG Room Exhaust Fan switches to full speed, and the Air Recirculation Return Damper closes.

II. CAUSE OF EVENT

The cause of this condition is attributed to personnel error. An incorrect wiring configuration for the Recirculation Air Damper for HVS-5 was found which prevented the damper from operating.

III. ANALYSIS OF EVENT

The design basis for the Reactor Auxiliary Building (RAB) Ventilation System is that the System provides for the positive control of the potentially contaminated RAB environment during normal operation, transients, and accident conditions.

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
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 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.	
FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)	
H. B. ROBINSON, UNIT NO. 2		05000261		YEAR 93	SEQUENTIAL NUMBER -- 016 --
				REVISION NUMBER 00	PAGE (3) 3 OF 4

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

### III. ANALYSIS OF EVENT (Cont'd.)

To satisfy this requirement, the RAB design considers the following:

- 1) The potentially contaminated areas of the RAB are maintained at a slightly negative pressure. This ensures that leakage at the pressure boundary of these areas is into the RAB.
- 2) The ventilation exhaust from the potentially contaminated areas is routed to the plant vent stack to allow continuous monitoring by the Radiation Monitoring System.
- 3) The air distribution in the RAB is such that movement is from areas of lesser contamination potential to areas of higher contamination potential.
- 4) Design of the system under accident conditions is dependent upon Operator action associated with restart of the system for scenarios involving loss of offsite power. For scenarios not involving loss of offsite power, the system will remain in operation and Operator action is credited for the startup of the charcoal fan unit. In both cases, Operator action is based upon response to acknowledgement and assessment of plant conditions and alarms. The flow balancing in accident conditions is equivalent to what exists under normal conditions.

This event has no adverse impact on plant safety. During the time period that a positive pressure situation existed, the plant was in cold shutdown condition. During the time of testing, no contaminated material was released to the environment which exceeded 10 CFR 20 limits.

This event is reported pursuant to 10 CFR 50.73(a)(2)(ii) as a condition that was outside the design basis of the plant.

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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 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.	
FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

#### IV. CORRECTIVE ACTIONS

The Licensee HVAC System Engineer initiated an investigation and verified that a positive pressure condition was present in the existing configuration. At 1112 hours, following flow balancing activities, a negative pressure condition was verified.

Adverse Condition Report 93-219 was initiated to document the positive pressure condition and to determine causal factors and corrective action recommendations.

On October 30, 1993, Adverse Condition Report 93-242 was initiated to document the Return Air Damper incorrect wiring condition.

Work Request WR 93-AKYY1 was initiated to repair the recirculation damper.

Special Procedure SP-1265 was initiated and performed to document the proper operation of the EDG Ventilation System during EDG testing.

#### V. ADDITIONAL INFORMATION

##### A. Failed Component Information

None

##### B. Previous Similar Events

LER 93-007