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ACCESSION NBR: 9310050323      DOC. DATE: 93/09/30      NOTARIZED: NO      DOCKET #  
 FACIL: 50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light Co      05000261  
 AUTH. NAME      AUTHOR AFFILIATION  
 CROOK, R.D.      Carolina Power & Light Co.  
 FLANAGAN, W.J.      Carolina Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 93-007-01: on 930730, determined sys operating outside design basis of plant. Caused by inadequate design control & monitoring weaknesses. Flow balance activities completed. W/930930 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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Carolina Power & Light Company

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Serial: RNP/93-2465  
(10CFR50.73)

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. 93-007-01

Gentlemen:

The enclosed Supplemental Licensee Event Report (LER), is submitted in accordance with 10 CFR 50.73 and NUREG 1022, Supplements No. 1 and 2. The purpose of this Supplement is to provide additional information concerning the cause of the event and the planned corrective actions. The changes are reflected by a right-hand margin bar. Original copies of this LER should be replaced in their entirety with this Supplement.

Very truly yours,

*Allen R. Wallace for*

William J. Flanagan, Jr.  
Acting Plant General Manager  
H. B. Robinson S. E. Plant

RDC:lst

Enclosure

cc: Mr. S. D. Ebnetter  
Mr. W. T. Orders  
INPO

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9310050323 930930  
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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
07	30	93	93	-- 007 --	01	09	30	93	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)		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 July 30, 1993, with H. B. Robinson Unit No. 2 operating at one hundred percent power, review of an Operability Determination for the Reactor Building Auxiliary System determined that the system had been operating in a condition outside the design basis of the plant.

At the time this condition was discovered, a modification was in progress which had removed one set of doors serving the building. By this configuration change, an air movement was identified that indicated a negative pressure environment was not being maintained in accordance with the design basis for the building.

The cause of this condition is attributed to inadequate design control in concert with weaknesses in the monitoring of the design requirement to maintain a negative pressure.

Upon discovery of this condition, system flow balancing activities were initiated that re-established a negative pressure condition. This condition was reported to the NRC via the ENS on August 2, 1993, at 2234 hours pursuant to 10 CFR 50.72(b)(1)(ii)(b). This LER is issued 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 CONTINUATIONESTIMATED 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	-- 007 --	01	

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

I. DESCRIPTION OF EVENT

On July 28, 1993, H. B. Robinson Unit No. 2 was operating at one hundred percent power. During coverage of work being performed by Plant Modification 934, licensee Health Physics personnel raised a question relative to the operation of the Reactor Auxiliary Building (RAB) Ventilation System. This modification had removed the doors serving the north end of the second floor RAB hallway. This removal included the door framing for both a roll up door and a personnel access door. A tarp cover was erected to provide a barrier. Observing the direction of movement of the tarp indicated that the air movement through the hallway was toward the outside environment and that a negative pressure was not being maintained. As a followup to the question raised, the System Engineer began investigating the situation and contacted the Nuclear Engineering Department. At 1726 hours, following discussion of this condition with licensee Operations personnel, an Operability Determination was initiated in accordance with Plant procedures in order to further evaluate the condition. On July 29, 1993, at approximately 1800 hours, a negative pressure condition was re-established for the second floor Reactor Auxiliary Building hallway. A flow balance was established such that air movement through the hallway was inward from the outside environment. On July 30, 1993, the Operability Determination was completed, and concluded that the RAB Ventilation System was operable under the established flow balance conditions.

II. CAUSE OF EVENT

The cause of this condition is attributed to inadequate design control in concert with weaknesses in the monitoring of the design requirement to maintain a negative building pressure.

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.

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(5-92)

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

III. ANALYSIS OF EVENT (Con't)

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 remained at normal operations. As such, although design controls were not maintained for that period, 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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(5-92)

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IV. CORRECTIVE ACTIONS

On July 29, 1993, at approximately 1800 hours, a walkdown of the RAB was conducted to evaluate the effect of the change of airflow in the second floor hallway. Actions were initiated to restore the Reactor Auxiliary Building Ventilation System to a negative pressure environment. This was accomplished by partially opening the prefilter door upstream of the room containing exhaust fans HVE-2A&B. This allowed the operating unit to induce a negative pressure, as observed by the direction of movement of the tarp erected by the modification.

As a result of the walkdown, Caution Tags were established to control the opening of the door to the room containing HVE-2A&B. Signs were hung on the open door and on both sides of the tarp at the north end of the hallway to control the existing configuration. Additionally, on July 30, 1993, Caution Tags were hung to control the opening of the access doors associated with HVS-1 that was opened during the balancing conducted earlier. These actions restored the Reactor Auxiliary Building Ventilation System to operable status.

Corrective actions for this event include completion of the flow balance activities associated with the modification that replaced the doors serving the north end of the second floor of the Auxiliary Building hallway. Periodic monitoring and trending of the instrumentation installed to monitor building air pressure will be initiated to track compliance with the design requirements. The trending methodology will be evaluated as to the value added for the other power block buildings that have design requirements associated with their ventilation systems. The evaluations will be provided to the design organization as operating experience for those completing design verification reviews.

V. ADDITIONAL INFORMATION

## A. Failed Component Information

None

## B. Previous Similar Events

None