

# CATEGORY 1

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 AUTH. NAME    AUTHOR AFFILIATION  
 CHERNOFF, H.K.    Carolina Power & Light Co.  
 YOUNG, D.E.    Carolina Power & Light Co.  
 RECIP. NAME    RECIPIENT AFFILIATION

SUBJECT: LER 97-002-00: on 970110, failed to perform surveillance of  
 containment personnel airlock. Caused by failure to interpret  
 licensing basis into plant design change. Conducted test on  
 airlock & revised Procedure EST-010.W/970210 ltr.

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**Carolina Power & Light Company**  
Robinson Nuclear Plant  
3581 West Entrance Road  
Hartsville SC 29550

Robinson File No: 13510C  
Serial: RNP-RA/97-0032

**FEB 10 1997**

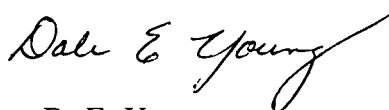
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23  
LICENSEE EVENT REPORT NO. 97-002-00

Gentlemen:

The enclosed Licensee Event Report (LER), is submitted in accordance with  
10 CFR 50.73(a)(2)(i)(B).

Very truly yours,



D. E. Young  
Plant General Manager

190059

Enclosure

c: Mr. L. A. Reyes, Regional Administrator, USNRC, Region II  
Ms. B. L. Mozafari, USNRC Project Manager, HBRSEP  
Mr. B. B. Desai, USNRC Senior Resident Inspector, HBRSEP

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<b>NRC FORM 366</b> (4-95)			<b>U.S. NUCLEAR REGULATORY COMMISSION</b>			<b>APPROVED BY OMB NO. 3150-0104</b> <b>EXPIRES 04/30/98</b>			ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), 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.			
<b>LICENSEE EVENT REPORT (LER)</b>  (See reverse for required number of digits/characters for each block)												
<b>FACILITY NAME (1)</b>  H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2						<b>DOCKET NUMBER (2)</b>  05000-261			<b>PAGE (3)</b>  1 OF 4			
<b>TITLE (4)</b>  TECHNICAL SPECIFICATION VIOLATION DUE TO INADEQUATE SURVEILLANCE TEST												
<b>EVENT DATE (5)</b>			<b>LER NUMBER (6)</b>			<b>REPORT DATE (7)</b>			<b>OTHER FACILITIES INVOLVED (8)</b>			
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER		
01	10	97	97	002	00	02	09	97	FACILITY NAME	DOCKET NUMBER		
									05000			
									05000			
<b>OPERATING MODE (9)</b>		N	<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)</b>									
<b>POWER LEVEL (10)</b>		100	20.2201(b)		20.2203(a)(2)(v)		X		50.73(a)(2)(i)		50.73(a)(2)(viii)	
20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)						
20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71						
20.2203(a)(2)(iii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER		Specify in Abstract below or in NRC Form 366A				
20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		50.73(a)(2)(vii)						
20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)								
<b>LICENSEE CONTACT FOR THIS LER (12)</b>												
<b>NAME</b>  H. K. Chernoff, Manager - Licensing/Regulatory Programs						<b>TELEPHONE NUMBER (Include Area Code)</b>  (803) 857-1437						
<b>COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)</b>												
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS			
<b>SUPPLEMENTAL REPORT EXPECTED (14)</b>						<b>EXPECTED SUBMISSION DATE (15)</b>		MONTH	DAY	YEAR		
<b>YES</b> (If yes, complete EXPECTED SUBMISSION DATE).				X	NO							
<b>ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)</b>  <p>On January 10, 1997, with H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2 operating at 100% power, plant Engineering personnel discovered that the containment personnel airlock had not been tested as required by the plant's Technical Specifications (TS) and 10 CFR 50, Appendix J, following startup from Refueling Outage 17. A modification implemented during Refueling Outage 17 modified the Penetration Pressurization System (PPS), which monitored containment leakage from the personnel airlock door seals, from a continuous monitoring system to an intermittent monitoring system. Personnel involved in preparing this modification failed to recognize that the continuous monitoring function of the PPS was an alternative accepted by the NRC to exempt the plant from the testing requirements of 10 CFR 50, Appendix J. Therefore, the basis for this accepted alternative was no longer valid. The subsequent failure to perform this test prior to establishing containment integrity created a condition that could have potentially allowed a containment leakage path to exist. A test of the containment personnel airlock was conducted on January 10, 1997, demonstrating that the airlock leakage rate was within the requirements of TS and 10 CFR 50, Appendix J. Procedures will be revised to specify that following opening of the containment airlock during periods when containment integrity is not required by the plant's TS, the airlock will be tested at the end of such periods in accordance with TS and 10 CFR 50, Appendix J. Expectations for Engineering personnel will be reinforced regarding the necessity for conducting a thorough review of the licensing basis when reviewing planned changes to plant systems and components.</p> <p>This report is submitted in accordance with 10 CFR 50.73(a)(2)(i)(b) as a condition prohibited by the plant's TS.</p>												

NRC FORM 366A  
(4-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	05000-261	YEAR	SEQUENTIAL	REVISION	2 OF 4
		97	002	00	

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

I. DESCRIPTION OF EVENT

On January 10, 1997, H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2 was operating at 100 percent reactor power. At 0845 hours Eastern Daylight Time, plant Engineering personnel discovered that procedure Engineering Surveillance Test (EST)-010, "Containment Personnel Airlock Leakage Test," had not been performed as required by Technical Specifications (TS) Section 6.12, "Containment Leakage Rate Testing Program." TS Section 6.12 requires that the type B and C leakage rate testing of the containment be implemented in the Containment Leakage Rate Testing Program in accordance with the requirements of 10 CFR 50, Appendix J, Option A. 10 CFR 50, Appendix J, Section III.D.2(b)(ii) specifies that airlocks opened during periods when containment integrity is not required by the plant's TS shall be tested at the end of such periods at not less than  $P_a$  (i.e., the calculated peak containment internal pressure related to the design basis accident and specified in the TS or associated bases). This testing requirement was not fulfilled following startup from Refueling Outage 17 during October 1996. Accordingly, plant operators invoked the requirements of TS Section 4.0, which specify that, upon discovery that a TS surveillance requirement was not performed within its specified frequency, the surveillance must be performed within 24 hours from the time of discovery that the surveillance requirement was not met.

II. CAUSE OF EVENT

This event was caused by failure to appropriately interpret and incorporate the licensing basis into a plant design change. TS Section 4.4.1, "Operational Leakage Rate Testing," specifies that required visual examinations and leakage rate testing shall be performed in accordance with the Containment Leakage Rate Testing Program, except for testing of the containment personnel airlock. The containment personnel airlock shall be tested every six months.

TS Section 6.12 requires that a program be established to implement the leakage rate testing of the containment as required by 10 CFR 50, Appendix J, Option B, as modified by approved exemptions for Type A testing. Type B and C testing shall be implemented in the program in accordance with the requirements of 10 CFR 50, Appendix J, Option A. 10 CFR 50, Appendix J, Section III.D.2.(b)(ii) states that, "Airlocks opened during periods when containment integrity is not required by the plant's TS shall be tested at the end of such periods at not less than  $P_a$ ."

The relationship between the TS Section 4.4.1 wording, which states that the airlock shall be tested every six months, and the Appendix J/TS Section 6.12 testing requirements, was not sufficiently well understood by plant personnel. As a result, engineering personnel were not cognizant of the reliance on an NRC approved alternative to performing the testing requirements of Appendix J, Section III.D.2.(b)(ii) for a  $P_a$  airlock test.

NRC FORM 366A  
(4-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	05000-261	YEAR	SEQUENTIAL	REVISION	3 OF 4
		97	-- 002	-- 00	

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II. CAUSE OF EVENT (Continued)

In NRC letter dated August 14, 1989, the NRC recognized use of the continuous pressurization system (i.e., the Penetration Pressurization System) as an accepted alternative to the testing required by 10 CFR 50, Appendix J, Section III.D.2(b)(ii). During preparation of an Engineering Service Request (ESR) implemented during Refueling Outage 17 which modified the Penetration Pressurization System (PPS) from a continuous monitoring system to an intermittent monitoring system, this accepted alternative was not recognized. As a result of inadequate interpretation of the requirements of the TS and 10 CFR 50, Appendix J, and the associated exemption, for this testing, the modification specified that only testing of the airlock door seals was required to verify containment integrity was established. Therefore, the requirements to conduct a full-volume test of the airlock were not incorporated into procedure EST-010.

III. ANALYSIS OF EVENT

TS Section 6.12 requires that containment leakage testing be performed in accordance with 10 CFR 50, Appendix J. 10 CFR 50, Appendix J, requires that, for type B and C tests, airlocks opened during periods when containment integrity is not required by the plant's TS shall be tested at the end of such periods at not less than  $P_a$ . This test measures total leakage from the airlock interior and applies this leakage to the total leakage allowed by TS and 10 CFR 50, Appendix J. As demonstrated by testing performed on January 10, 1997, this event has no adverse effect on plant safety. The results of this testing were within the acceptance criteria of the TS and 10 CFR 50, Appendix J, of  $0.6L_a$ . However, failure to perform this test prior to establishing containment integrity created a condition that could have potentially allowed a containment leakage path to exist.

TS 6.12 specified that the Containment Leakage Rate Testing Program is in accordance with the requirements of 10 CFR 50, Appendix J. Since these requirements were not satisfied following startup from Refueling Outage 17, this report is submitted in accordance with 10 CFR 50.73(a)(2)(I)(b) as a condition prohibited by the plants TS.

NRC FORM 366A  
(4-95)

U.S. NUCLEAR REGULATORY COMMISSION

## LICENSEE EVENT REPORT (LER)

## TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	05000-261	YEAR	SEQUENTIAL	REVISION	4 OF 4
		96	007	00	

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IV. CORRECTIVE ACTIONS

Procedure EST-010 was conducted on January 10, 1997. The results of this test demonstrated that the airlock leakage rate was within the requirements of 10 CFR 50, Appendix J. At 2000 hours, plant operators exited the TS Section 4.0 action statement.

Procedure EST-010 will be revised by March 31, 1997, to specify that following opening of the containment airlock during periods when containment integrity is not required by the plants TS, the airlock will be tested at the end of such periods at not less than  $P_a$ .

Expectations for Engineering personnel will be reinforced regarding the necessity for conducting a thorough review of the licensing basis when reviewing planned changes to plant systems and components.

V. ADDITIONAL INFORMATION

## A. Failed Component Identification

None

## B. Previous Similar Events

None