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 FACIL: 50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light Co      05000261  
 AUTH. NAME      AUTHOR AFFILIATION  
 LEGETTE, F.L.      Carolina Power & Light Co.  
 MORGAN, R.E.      Carolina Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 88-027-00: on 881125, one of two source range monitors failed during refueling.

W/8      ltr.

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 6 1	PAGE (3) 1 OF 0 3
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TITLE (4)  
TECHNICAL SPECIFICATION VIOLATION DURING REFUELING

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)
11	25	88	88	027	0	12	27	88			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	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 (Specify in Abstract below and in Text, NRC Form 366A)						
	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)							
	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 F. L. Legette, Senior Reactor Operator							TELEPHONE NUMBER		
							AREA CODE 8 0 3		
							3 8 3 - 1 2 5 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)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO						

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

Abstract

During refueling on November 25, 1988, while unlatching control rod drive shafts, one of two source range monitors failed. The unlatching operation was suspended. During the suspension it was discovered that due to a misunderstanding of terms, the checklists for refueling preparations as required by the General Operating Procedure (GP-010) were not completed. One of the initial conditions on the checklist is addressed in Plant Technical Specification 3.8.1.G. Although Robinson - 2 Technical Specifications do not specifically define unlatching control rod drive shafts as a "change in core geometry," its equivalent term in Standard Technical Specifications "core alterations" would include this operation. Therefore this event is being reported, conservatively, pursuant to 10CFR50.73(a)(2)(i)(B) as an operation prohibited by the plant's Technical Specifications. Procedures will be revised to clearly define what constitutes changing core geometry.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) H. B. ROBINSON S. E. PLANT UNIT NO. 2	DOCKET NUMBER (2) 0   5   0   0   0   2   6   1	LER NUMBER (6)			PAGE (3)		
		YEAR 8   8	SEQUENTIAL NUMBER -   0   2   7	REVISION NUMBER -   0   0			

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

I. Description of Event

On November 25, 1988, at 0930 hours, the refueling team began to unlatch the control rod drive shafts in accordance with the fuel handling procedure.<sup>1</sup> At 1135 hours, the control rod unlatching was suspended due to failure of one of two source range monitors. This suspension was thought to be a conservative measure necessary to comply with Technical Specifications which state "whenever core geometry is being changed, core subcritical neutron flux shall be continuously monitored by at least two source range neutron monitors." At about 1900 hours, while awaiting approval of an engineering evaluation that would qualify the accident monitors for usage as the second source range monitor, it was discovered that the refueling preparations checklists required by the General Operating Procedure, GP-010, "Refueling," were not completed prior to commencing control rod drive shaft unlatching.<sup>2</sup> One of the checklist items states "voice communication are established between the Control Room, Spent Fuel Building, and the Containment Manipulator Crane." This condition would also be required by Technical Specifications 3.8.1.g which states "Direct communication between the control room and the refueling cavity manipulator crane shall be available whenever changes in core geometry are taking place." Robinson - 2 Technical Specifications do not define the scope of the evolution "changing core geometry."<sup>3</sup> Therefore, unlatching control rods, which could result in minute control rod withdrawal, is not specifically defined as changing core geometry. However, the definition of the similar term "core alteration" used in Standard Technical Specifications would include this operation.

Therefore, it is felt that, based on Standard Technical Specification and ANSI N45.2 definitions, the intent of the Technical Specification was violated. Accordingly, this report is submitted as a conservative interpretation of 10CFR50.73(a)(2)(i)(B) as an operation prohibited by the plant's Technical Specifications.

II. Cause of Event

The shift foreman responsible for the refueling operation failed to ensure that all attachments to the refueling procedure were completed. When questioned, the shift foreman did not consider all attachments applicable during control rod unlatching operations because he did not think core geometry was being changed. However, had a review of GP-010 been made, the shift foreman would have recognized that all attachments were applicable and any steps within the attachments not applicable should have been marked N/A.

- 1/ FHP-005, Revision 0, Control Rod Drive Shaft Unlatching and Removal
- 2/ EE-88-161, Revision 0, Use of N51/N52 in lieu of N31/N32 during fuel movement
- 3/ H. B. Robinson Unit No. 2 is a Westinghouse Pressurized Water Reactor Nuclear Power Plant in commercial operation since March 1971

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  H. B. ROBINSON S. E. PLANT UNIT NO. 2	DOCKET NUMBER (2)  0 5 0 0 0 2 6 1 8 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	0 2 7	0 0	0 3	OF	0 3

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

Additionally, at the time of the control rod drive shaft unlatching incident, there had been no definitive position taken that stated unlatching control rod drive shafts constituted changing core geometry.

III. Analysis of Event

Direct communications allow the control room operator to inform the manipulator operator of any impending unsafe condition detected from the control board. This incident did not involve fuel movement, and had the potential for only minute control rod withdrawal. Additionally at the time, the reactor cavity was flooded with water borated to refueling shutdown concentration which ensures that the reactor remains subcritical even if all control rods are withdrawn. Therefore, no threat to the health and safety of the public existed.

IV. Corrective Actions

GP-010 will be revised to include a definition of what constitutes changing core geometry. The definition will be based on the Standard Technical Specifications definition. Additionally, the Shift Foreman involved was counseled by the Manager of Operations regarding the necessity for procedural compliance and attention to detail with regard to this evolution.

V. Additional Information

A. Failed Component Identification

None

B. Previous Similar Events

No Known Events



Carolina Power & Light Company

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Robinson File No: 13510C

DEC 22 1988

Serial: RNP/88-6103  
(10 CFR 50.73)

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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261  
LICENSE NO. DPR-23  
LICENSEE EVENT REPORT 88-027-00

Gentlemen:

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

Very truly yours,

R. E. Morgan  
General Manager  
H. B. Robinson S. E. Plant

FLL:bah

Enclosure

cc: Mr. M. L. Ernst  
Mr. L. W. Garner  
INPO

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