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FACIL:50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
AUTH.NAME AUTHOR AFFILIATION
BAUR,D.H. Carolina Power & Light Co.
CHAMBERS,R.H. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 91-013-00:on 910917,diesel engine driven fire pump declared inoperable.Failed to replace existing 100-120 F thermostat w/120-140 F thermostat.Thermostat replaced per mod 445P,DCN-NUS-245.W/911009 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 4
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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	REG FILE 02	1	1	RES/DSIR/EIB	1	1
	RGN2 FILE 01	1	1			
EXTERNAL:	EG&G BRYCE,J.H	3	3	L ST LOBBY WARD	1	1
	NRC PDR	1	1	NSIC MURPHY,G.A	1	1
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United States Nuclear Regulatory Commission
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261:
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 91-013

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,

Ruey H. Chambers

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

DHB:sgk

Enclosure

cc: Mr. S. D. Ebneter
Mr. L. W. Garner
INPO

IE22
1/1

9110180037 911008
PDR ADOCK 05000261
S PDR

NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	0 5 0 0 0 2 6 1	1 OF 0 3

TITLE (4)

DIESEL DRIVEN FIRE PUMP INOPERABLE

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)
0 9	1 7	9 1	9 1	0 1 3	0 0	1 0	0 8	9 1		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)	1 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	TELEPHONE NUMBER
DAVID H. BAUR - REGULATORY COMPLIANCE	AREA CODE 8 0 3 — 3 8 3 - 1 2 9 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	

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 fifteen single-space typewritten lines) (16)

AT 1100 hours on September 17, 1991, with the H. B. Robinson Unit No. 2 operating at 100% power the Diesel Engine Driven Fire Pump was declared inoperable. The Fire Pump was declared inoperable based on a Preventative Maintenance procedure, PM-103, Fire Pump Diesel Inspection Number 1 (Annual), that was completed on April 29, 1991, and recorded an engine oil temperature of 104°F which is less than the manufactures recommended 120°F. PM-103 references Technical Specification 3.14, 4.14.6.1, and 4.14.6.2. Of these paragraphs 4.14.6.1.b was not satisfied due to the engine oil temperature being less than the manufactures recommended 120°F. Technical Specification 4.14.6.1.b requires that an inspection be performed in accordance with a procedure prepared in conjunction with manufacture recommendations.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	0 5 0 0 0 2 6 1	9 1	— 0 1 3	— 0 0	0 2 OF 0 3

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

I DESCRIPTION OF EVENT

AT 1100 hours on September 17, 1991, with the H. B. Robinson Unit No. 2[1] operating at 100% power the Diesel Engine Driven Fire Pump was declared inoperable. The Fire Pump was declared inoperable based on a Preventative Maintenance procedure, PM-103, Fire Pump Diesel Inspection Number 1 (Annual), that was completed on April 29, 1991, and recorded an engine oil temperature of 104°F which is less than the manufactures recommended 120°F. PM-103 references Technical Specification 3.14, 4.14.6.1, and 4.14.6.2. Of these paragraphs 4.14.6.1.b was not satisfied due to the engine oil temperature being less than the manufactures recommended 120°F. Technical Specification 4.14.6.1.b requires that an inspection be performed in accordance with a procedure prepared in conjunction with manufacture recommendations.

This condition was identified as a Technical Specification violation on September 17, 1991 as a result of an Adverse Condition Report, ACR 91-324, which was issued on September 11, 1991 to identify the under temperature condition of the Fire Pump Engine and obtain appropriate corrective action.

II CAUSE OF EVENT

This event is attributed to DCN-NUS-254 to Modification 445P which was written to replace the existing 100-120°F thermostat with a 120-140°F thermostat but was not implemented at the time the Fire Pump was installed. Following the installation of the Fire Pump, Periodic Test, (PT) 9.7, Inspection of Engine Driven Fire Pump Engine, Refueling Interval, was developed and issued on December 3, 1979 to satisfy the requirements of Technical Specifications 4.14.6.1 and 4.14.6.2. In August 1983 PT 9.7 was reissued as Operations Surveillance Test (OST) 619, Inspection of Engine Driven Fire Pump Engine (18 Months). Neither PT-9.7 nor OST-619 contained requirements to monitor the temperature of the cold start thermal aids. However, in November 1984, PM-103 was issued as a replacement for OST-619 and did contain the requirement to verify that the cold start thermal aids were maintaining the oil and water temperatures above 120°F as recommended by the manufactures Technical Manual.

In October 1989 Work Request WR/JO 89-AJMF1 was issued to investigate temperatures, 94°F actual, that were less than the manufactures recommendations on the Fire Pump Engine. The Work Request identified that both water and oil heaters are controlled by one thermostat and that the problem was "design" and was turned over to System Engineering. As previously stated, the PM-103 that was performed in April 1991 recorded a temperature of 104°F, and in September 1991, ACR 91-324 was issued.

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[1]H. B. Robinson Unit No. 2 is a Pressurized Water Reactor in commercial operation since March, 1971.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2	0 5 0 0 0 2 6 1	9 1	— 0 1 3	— 0 0	0 3 OF 0 3

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

III ANALYSIS OF EVENT

Technical Specification 3.14.2.1.a requires that two high pressure fire pumps be operable, and 3.14.2.2 allows that if less than the above is operable the inoperable equipment must be returned to operable status within seven days, or a Special Report must be prepared and submitted within the next 30 days. A Technical Specification violation occurred when the required Special Report was not issued within the time requirements following the completion of PM-103 on April 29, 1991. Therefore, this condition is being reported under 10CFR50.73 (a) (2) (i) B, Any Operation or Condition Prohibited by the Plant's Technical Specification.

Based on recent information obtained from the engine manufacturer past operability of the Fire Pump Engine is not a concern from the standpoint of the heater configuration. The installed heater size conformed to Cummins requirements for the ambient environments at Robinson Plant. It has been concluded that the fire pump would have operated as required had it been called upon.

As previously stated the Fire Pump was declared inoperable at 1100 on September 17, 1991 and was returned to service at 2230 on September 23, 1991. Based on the completion of PM-103 the fire pump should have been declared inoperable on April 29, 1991, however, there are no adverse safety concerns because the Engine Driven Fire Pump was "technically" not "physically" inoperable.

IV CORRECTIVE ACTIONS

The installed 100-120^{0}F thermostat was replaced with a 120-140^{0}F thermostat per Modification 445P, DCN-NUS-245. The existing 150 watt oil heater was also replaced with a 300 watt oil heater based on the manufacturers recommendation. Additionally, PM-103 has been revised to identify a more appropriate location to monitor temperature and to require the documentation of the actual temperatures obtained.

Procedure PM-103 will again be reviewed to determine what changes can be made to strengthen the review process of the procedure to address failures to meet the acceptance criteria at the time they occur. The review and any required changes will be complete by February 28, 1992.

V ADDITIONAL INFORMATION

1 Component failures.
None

2 Previous similar events.
None