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ACCESSION NBR: 8909190116 DOC. DATE: 89/09/13 NOTARIZED: NO DOCKET #
 FACIL: 50-389 St. Lucie Plant, Unit 2, Florida Power & Light Co. 05000389
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 JOHNSON, A.B. Florida Power & Light Co.
 WOODY, C.O. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-006-00: on 890816, removing DG from svc for PM resulted in condition prohibited by TS due to personnel error.

W/8 ltr.

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P.O. Box 14000, Juno Beach, FL 33408-0420

SEPTEMBER 13 1989

L-89-335
10 CFR 50.73

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Re: St. Lucie Unit 2
Docket No. 50-389
Reportable Event: 89-06
Date of Event: August 16, 1989
Removing Diesel Generators From Service for
Preventative Maintenance Resulted in a Condition Prohibited
by Technical Specifications due to Personnel Error

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

C. O. Woody
Acting Senior Vice President - Nuclear

COW/JRH/cm

Attachment

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant

8909190116 890913
PDR ADOCK 05000389
S PDC

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) ST. LUCIE, UNIT 2	DOCKET NUMBER (2) 0 5 0 0 0 3 8 9	PAGE (3) 1 OF 0 3
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TITLE (4) **REMOVING DIESEL GENERATOR FROM SERVICE FOR PREVENTATIVE MAINTENANCE RESULTED IN A CONDITION PROHIBITED BY TECHNICAL SPECIFICATION DUE TO PERSONNEL ERROR**

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	8	1	6	8	9	8	9	8	9	0	0	6	0	0	9	1	3	8	9	0	5	0	0	0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10)	20.402(b)			20.405(c)			50.73(a)(2)(iv)			73.71(b)
	20.405(a)(1)(i)			50.38(c)(1)			50.73(a)(2)(v)			73.71(c)
	20.405(a)(1)(ii)			50.38(c)(2)			50.73(a)(2)(vi)			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)(vii)(A)			
	20.405(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(vii)(B)			
	20.405(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(ix)			

LICENSEE CONTACT FOR THIS LER (12)										
NAME A.B. JOHNSON, SHIFT TECHNICAL ADVISOR							TELEPHONE NUMBER			
							AREA CODE			
							4 0 7	4 6 5 - 3 5 5 0		

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	
X	I K	A S V	V 0 3 0	N							

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)

On August 16, 1989 with St. Lucie Unit 2 in Mode 1 at 90% power, the Unit was found to be operating in a condition prohibited by plant's Technical Specification. The 2B Diesel Generator had been placed out of service with the 2A Hydrogen Analyzer also out of service. This condition is prohibited by Technical Specification by not having all equipment operable on the remaining operable diesel generator (2A). The 2B Diesel Generator was placed out of service to perform preventative maintenance on the air start system.

The root cause of the event was a cognitive personnel error by a utility-licensed operator by not adhering to plant procedure when removing the 2B Diesel Generator from service for preventative maintenance.

Corrective actions taken were: 1) immediately restored the 2B Diesel Generator to operable status; 2) counselled all involved personnel on the need to perform a more thorough review of the equipment status prior to taking safety-related equipment out of service; 3) returned the 2A Hydrogen Analyzer to service.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) ST. LUCIE, UNIT 2	DOCKET NUMBER (2) 05000389	LER NUMBER (6)			PAGE (3)		
		YEAR 89	SEQUENTIAL NUMBER 006	REVISION NUMBER 00			
		89	-006	-00	02	OF	03

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

DESCRIPTION OF EVENT

On August 16, 1989, St. Lucie Unit 2 was in Mode 1 at 90% power due to repairs on the 2A Drain Cooler (EIIS:SD). At approximately 0840, the licensed control room supervisor was informed by a Quality Control inspector that the unit was violating a Technical Specification by having both the 2B Diesel Generator (EIIS:EK) out of service and the 2A Hydrogen Analyzer (EIIS:IK) out of service simultaneously. The control room supervisor reviewed the plant's Technical Specifications and concurred. The 2B Diesel Generator had been placed out of service at 2324 on August 15 by the previous shift to perform preventative maintenance on the air start system. The 2B Diesel Generator was restored to operable status at 0902 on August 16 to exit the Action Statement of the Technical Specification. The 2A Hydrogen Analyzer had been out of service since August 10 due to dual indication on a solenoid valve, FSE-27-10, which is part of the Hydrogen Sampling System.

CAUSE OF EVENT

The root cause of the event was cognitive personnel error by a utility-licensed operator by not adhering to plant procedure prior to removing the 2B Diesel Generator from service for preventative maintenance. This procedure, "Duties and Responsibilities of Operators On Shift", requires licensed operators to review the Equipment Out Of Service log as part of their shift turnover. The 2B Diesel Generator was removed from service prior to the review of the Equipment Out Of Service log by the licensed operator. There were no unusual characteristics of the work location that directly contributed to the personnel error.

ANALYSIS OF EVENT

This event is reportable under 10 CFR 50.73 (a)(2)(i)(B), "any operation or condition prohibited by the plant's Technical Specification". Technical Specification 3.8.1.1 requires that all equipment on the remaining operable diesel generator also to be operable. The 2A Hydrogen Analyzer was the only inoperable "A" train component when the 2B Diesel Generator was placed out of service for preventative maintenance. This condition went unnoticed from the time the 2B Diesel Generator was placed out of service at 2324 on August 15 to the time of discovery, at 0840 on August 16.

The function of the Combustible Gas Control System (EIIS:BB) is to detect and control hydrogen gas concentration and maintain the concentration within containment below its flammable limits during post-LOCA conditions. The Combustible Gas Control System has two subsystems to accomplish this safety function. The first subsystem is the Hydrogen Analyzers which serves as the detection portion of the Combustible Gas Control System. The second subsystem is the Electric Hydrogen Recombiners (EIIS:BB) which serves as the control portion of the Combustible Gas Control System. During the

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		8 9	- 0 0 6	- 0 0	0 3	OF	0 3

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

period the 2B Diesel Generator was out of service, the Hydrogen Analyzer was available only through its normal power supply. In analyzing the worst case LOCA event with the loss of off-site power, the Combustible Gas Control safety function would have been maintained because the hydrogen detection can be achieved via the Post Accident Sampling System (EIS:IP) and hydrogen control would have been achieved via the hydrogen recombiners. Both trains of Electric Hydrogen Recombiners were operable. Even though the 2A Hydrogen Analyzer was out of service due to the dual indication on FSE-27-10, the Hydrogen Analyzer still had the capability to sample hydrogen concentration at all locations within the containment with the exception of the 2A1 Reactor Coolant Pump (RCP)(EIS:AB) area.

This event was evaluated for safety considerations and was determined not to be significant because the Combustible Gas Control safety function would have been maintained during the worst case conditions. Consequently, the health and safety of the public was not affected by this event.

CORRECTIVE ACTIONS

- 1) Immediately after the discovery, the 2B Diesel Generator was returned to operable status.
- 2) The personnel involved have been counselled on the need to perform a more thorough review of the equipment status prior to taking safety-related equipment out of service. In addition, a night order was issued to extend this message to all licensed operators.
- 3) The failed solenoid valve, FSE-27-10, was replaced and the 2A Hydrogen Analyzer was returned to service on August 23.

ADDITIONAL INFORMATION

FAILED COMPONENT:

Manufacturer: VALCOR Solenoid Valve, Model # : 52600-515

PREVIOUS SIMILAR EVENTS:

Events involving conditions prohibited by plant's Technical Specification due to lack of emergency power source available or not having the required operable components on the remaining emergency power source due to personnel error, see LER #:

- 389-83-001
- 335-84-010
- 335-85-001
- 389-86-001