

CONTROL BLOCK: 

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 (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CON'T

0	1
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REPORT SOURCE

L	6	0	5	0	0	0	3	8	9	7	0	4	1	6	8	3	3	0	5	0	2	8	3	9
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DOCKET NUMBER

EVENT DATE

REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 While reviewing plant status in preparation for commencing mode changes  
0 3 for initial start up, it was discovered that both emergency generators  
0 4 had been technically out of service during fuel movement for initial core  
0 5 load. This event was discovered after the fact and action in accordance  
0 6 with T.S. 3.8.1.2 was verified to already exist. The "B" diesel generator  
0 7 was restored to operable status. This was the first event of this type.  
0 8 There was no adverse effect on the health or safety of the public.

09		SYSTEM CODE E11		CAUSE CODE A12		CAUSE SUBCODE A13		COMPONENT CODE ENGINE14				COMP SUBCODE Z15		VALVE SUBCODE Z16			
17		LER/RO REPORT NUMBER 83		EVENT YEAR 83		SEQUENTIAL REPORT NO. 001		OCCURRENCE CODE 01		REPORT TYPE T		REVISION NO. 0					
ACTION TAKEN X18		FUTURE ACTION Z19		EFFECT ON PLANT Z20		SHUTDOWN METHOD Z21		HOURS 000022		ATTACHMENT SUBMITTED Y23		NPRD FORM SUB. N24		PRIME COMP. SUPPLIER A25		COMPONENT MANUFACTURER E14726	

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS

1 0 The root cause of this event was personnel error in establishing the out of  
1 1 service log. The "B" diesel generator was out of service when the log was  
1 2 established but was not entered. This event was promptly reported by  
1 3 telephone and facsimile in accordance with Tech. Spec. 6.9.1.8.b. Addi-  
1 4 tional details are attached.

FACILITY STATUS      % POWER      OTHER STATUS      METHOD OF DISCOVERY      DISCOVERY DESCRIPTION

(1) 5    B(28)    0 0 0 0    NA    B(31)    Review of plant status    (32)

ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (35)

1 5 7 8 9 10 11 44 45 NA 46

PERSONNEL EXPOSURES									
NUMBER		TYPE		DESCRIPTION					
0	0	0	37	Z	28	NA			

PERSONNEL INJURIES		DESCRIPTION	
NUMBER			
13	7	40	NA

3		9		11		12		30	
		LOSS OF OR DAMAGE TO FACILITY				(43)			
		TYPE		DESCRIPTION					
1	9	N	(42)			NA			

PUBLICITY  
ISSUED DESCRIPTION NA NAC USE ONLY

(2) (0)

NAME OF PREPARER G. E. Walling

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830510027B 830502  
PDR ADDCK 05000389  
S PDR

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES

Both emergency diesel generators were found to have been out of service simultaneously for one period of 10 days, during which fuel movement activities were occurring for 4 of those days, and for one period of two days.

During the 4 days when fuel movement was occurring (4-6-83 thru 4-10-83) the LCO for T.S. 3.8.1.2 was exceeded and appropriate action was not taken.

The "B" diesel generator, although not recorded in the equipment out of service log, should have been considered technically out of service because the DC soak back pump was inoperable.

There is an AC and a DC soak back pump on each diesel. These pumps provide lube oil to the engine turbo charger during start up (before the shaft driven lube oil pump is up to speed).

The AC pump was operable maintaining lube oil to the turbo charger. In an emergency start situation (loss of AC) the AC pump would be lost moments before the diesel reached operating speed resulting in a start with degraded lube oil. Experience on Unit 1 diesels indicates that the diesel could have been started several times in this mode.

The "A" diesel generator was entered in the out of service log due to "Diesel Transfer Pump OOS". Investigation revealed that the "Diesel Transfer Pump" in reality was the DC driven Fuel Pump which is redundant to the Shaft Driven Fuel Pump. Although technically out of service, the "A" diesel generator would have started if required.

It can be concluded from the above that although both diesel generators were technically out of service during fuel movement activities, there is a very high probability that both would have started if required, therefore, there were no probable consequences associated with this event.

CAUSE DESCRIPTION AND CORRECTIVE ACTION CONT'D

The following sequence of events was reconstructed from records, logs and interviews to determine the cause for both emergency generators being out of service coincident with fuel movement during initial core load.

- 3-1-83 The DC soak back pump motor on "B" EDG burned out. The start up engineer was issued a clearance to work on it. With no spare available, the motor was sent offsite.
- 4-2-83 In anticipation of receipt of the operating license, Control Room personnel were instructed to establish an equipment out of service (OOS) log by reviewing the start up trouble log, equipment clearance log, and lifted lead and jumper log. An OOS log was established from this point. It is not clear if other logs were reviewed for equipment previously out of service but "B" diesel was not entered. "A" EDG was entered in the OOS log due to diesel transfer pump being inoperable.

## CAUSE DESCRIPTION AND CORRECTIVE ACTION CONT'D

In anticipation of fuel movement, the Emergency Diesel Periodic Test procedure was performed on the "B" diesel to verify operability and conformance to T.S. 3.8.1.2. The test procedure did not call for verifying the operability of the DC soak back pump and although it was out of service, the diesel generator passed the surveillance in accordance with the procedure and was considered operable by Control Room personnel.

NOTE: In performing this surveillance, the diesel is started manually, there is no loss of AC, therefore the AC soak back pump continued to run and there was no degradation of lube oil supply.

4-5-83 Clearance log shows that the clearance on "B" EDG was lifted. ("B" EDG remains technically inoperable, the start up engineer turned the repair over to Electrical Maintenance, so he no longer needs his clearance).

4-6-83 Operating License issued. Fuel movement begins.

4-6 thru 4-10-83 Both "A" and "B" EDGs are technically inoperable but this fact is not identified and fuel movement continues.

4-10-83 Fuel movement complete.

4-12-83 "A" EDG restored to operable status per OOS log.

4-14-83 "A" EDG clearance issued for Appendix R work, entered in OOS log. "A" is now disabled, it will not start.

4-16-83 Review reveals "B" EDG is technically inoperable. Situation is identified, soak back pump is removed from inoperable "A" EDG and installed on "B" EDG. "B" is restored to operable status.

Two independent reviews, one by QC and one by Operations were initiated to verify that equipment on the trouble log, clearance log, lifted lead and jumper log is reflected in the OOS log.

## SUMMARY

The root cause of this event was personnel error in failing to adequately review appropriate logs when establishing an equipment out of service log.

All logs were reviewed with double verification to ensure equipment out of service log is accurate.

The diesel generator periodic surveillance procedure was revised to verify operation of the DC soak back pump.