

CONTROL BLOCK.

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CONT

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REPORT SOURCE

L	6	0	5	0	0	0	2	8	1	7	0	7	1	0	8	0	E	0	8	0	7	8	1	S
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COCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

On July 10 and again on July 12, while attempting to fill the #3 EDG wall tank, a solenoid coil shorted, causing the control transformer for fuel oil transfer pump 1-EE-P-1C to overheat and fail. The redundant pump 1-EE-P-1F was proven operable by functional testing. Therefore, the health and safety of the public were not affected. Loss of one transfer pump is contrary to T.S.-3.16.A.5 and reportable per T.S.6.6.2.b.(2).

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0 9

SYSTEM CODE [E][E] 11

CAUSE CODE [E] 12

CAUSE SUBCODE [A] 13

COMP. SUBCODE [E] 15

VALVE SUBCODE [Z] 16

COMPONENT CODE [V][A][L][V][E][X] 14

SEQUENTIAL REPORT NO. [0][4][6] 24

OCCURRENCE CODE [0][3] 28

REPORT TYPE [L] 30

REVISION NO. [0] 32

17 LER/RO REPORT NUMBER [8][1] 21

EVENT YEAR [8][1] 21

ACTION TAKEN [A] 18

FUTURE ACTION [Z] 19

EFFECT ON PLANT [Z] 20

SHUTDOWN METHOD [Z] 21

HOURS [0][0][0][0] 22

ATTACHMENT SUBMITTED [Y] 23

NPRD FORM SUB [N] 24

PRIME COMP. SUPPLIER [A] 25

COMPONENT MANUFACTURER [A][4][9][9] 26

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

110 The cause of both events was a random electrical fault in the SOV Coil, thereby  
111 causing the control power transformer to overheat and fail. Subsequent trouble-  
112 shooting revealed no problems with the affected control circuit and the redundant  
113 SOV's. The SOV was replaced and tested satisfactory.

FACILITY STATUS		% POWER		OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION		
1	5	E	28	1	0	0	29	B	31	Operator Observation
ACTIVITY CONTENT		RELEASED OF RELEASE		AMOUNT OF ACTIVITY		LOCATION OF RELEASE				
1	6	Z	33	Z	34	N/A	35	N/A	36	
PERSONNEL EXPOSURES		NUMBER		TYPE		DESCRIPTION				
1	7	0	0	0	37	Z	38	N/A		
PERSONNEL INJURIES		NUMBER		DESCRIPTION						
1	8	0	0	0	40	N/A				
LOSS OF OR DAMAGE TO FACILITY		TYPE		DESCRIPTION						
1	9	Z	42	N/A						
PUBLICITY ISSUED		DESCRIPTION								
1	10	N	44	N/A						

NRC USE ONLY

8108130243 810807  
PDR ADOCK 05000280  
PDR

J. L. Wilson

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ATTACHMENT 1  
SURRY POWER STATION, UNIT 2  
DOCKET NO: 50-281  
REPORT NO: 81-046/03L-0  
EVENT DATE: 07-10-81

FUEL OIL TRANSFER PUMP (1-EE-P-1C) SOV FAILURE

1. DESCRIPTION OF EVENT:

On July 10 and again on July 12, while attempting to fill the #3 EDG wall tank, the Solenoid Coil, SOV-HS-104, shorted, causing the control power transformer for 1-EE-P-1C to overheat and fail.

These events are contrary to T.S. 3.16.A.5 and reportable in accordance with T.S.6.6.2.b.(2).

2. PROBABLE CONSEQUENCES AND STATUS OF REDUNDANT EQUIPMENT:

Two 100% capacity fuel oil transfer pumps ensure that the operating diesel has a continuous supply of fuel oil from the buried fuel oil storage tanks.

The redundant pump, 1-EE-P-1F, was immediately proven operable by functional testing.

The SOV coil and the control power transformer were replaced and functionally tested each time in less than 24 hours.

The health and safety of the public were not affected.

3. CAUSE:

The cause of both events was an electrical fault in the SOV coil thereby, causing the control power transformer to overheat and fail.

4. IMMEDIATE CORRECTIVE ACTION:

Verified operability of redundant flow path, repairs to 1-EE-P-1C control circuit were accomplished. Transfer pump 1C and the associated control circuit were tested and returned to service.

5. SUBSEQUENT CORRECTIVE ACTION:

The SOV coil for 1-EE-P-1C was tested under operating conditions and found to draw 0.44 amps at 118 VAC. (Nameplate current is 0.35 amps). The test equipment utilized was an in-line ammeter using the 0-2 amp scale. Three other SOV's associated with fuel oil pumps 1A, 1B and 1F were tested. The measured currents were 0.40, 0.40 and 0.42 amps respectively. A point to point check of the control circuit verified that the wiring was in accordance with the approved drawings.

A complete new valve (coil and valve) was obtained, bench tested and installed in 1-EE-P-1C control circuit. The measured coil current, with the new valve installed, was 0.42 amps. The system was tested and returned to service.

6. ACTION TAKEN TO PREVENT RECURRENCE:

The failure of the SOV coils appears to be a series of random failures and therefore no additional actions are planned.

7. GENERIC IMPLICATIONS:

None.