

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Fort Calhoun Station, Unit #1	DOCKET NUMBER (2) 0 5 0 0 0 2 8 1 5	PAGE (3) 1 OF 0 2
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TITLE (4)  
Surveillance Test Performance 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	1	0	8	8	7	0	0	1	N		0 5 0 0 0
0	1	0	8	8	7	0	2	0			0 5 0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

OPERATING MODE (9)	20.402(b)	20.406(a)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	20.406(a)(1)(i)	50.38(a)(1)	50.73(a)(2)(v)	73.71(a)
	20.406(a)(1)(ii)	50.38(a)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

Surveillance tests ST-ESF-2, ST-ESF-4 and ST-ESF-13 are used to satisfy the testing requirements of Technical Specification Table 3-2, Items 3a, 5a and 20a. On January 8, 1987, the operator in charge of performing ST-ESF-2 inadvertently signed off an "initial condition" step which had been designed to prohibit actual test performance if any inoperable engineered safeguards equipment existed on the 4160 volt safeguards bus opposite the 4160 volt safeguards bus affected by ST-ESF-2. The test was subsequently performed even though one raw water pump was inoperable due to breaker maintenance. ST-ESF-2 disabled two additional raw water pumps (inoperable as defined in Technical Specification 2.0.1(2), General Requirements) due to test switch alignment thus precluding emergency start of one diesel generator and actuation of one set of DC powered sequencers.

The surveillance test was concluded and switch alignment returned to normal within two hours, thus not violating the LCO time limit placed on the unit by Technical Specification 2.0.1, General Requirements, for mandatory unit shutdown.

To prevent possible recurrence, responsibility for inoperable safeguards equipment review has been transferred to the Shift Supervisor. In addition, the entire operations staff will be made aware of this event and retraining conducted where appropriate.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Fort Calhoun Station, Unit 1	DOCKET NUMBER (2)  0 5   0   0   0   2   8   5   8   7	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		OF
		- 0   0   1	- 0   0   0	2	0	2

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Technical Specification Table 3-2 requires monthly testing of the safety injection actuation initiation circuits (Item 3a) along with monthly testing of the containment spray initiation circuits (Item 5a) and recirculation actuation circuitry (Item 20a). At Fort Calhoun Station, these requirements are met by performing surveillance tests ST-ESF-2 Section F.2, ST-ESF-4 Section F.2 and ST-ESF-13 Section F.2, respectively. These surveillance tests are performed together using an installed test system.

ST-ESF-2 involves disabling a set of DC powered sequencers (S2-1) and the diesel generator (D2) associated with its 4160 volt safeguards bus (1A4). This arrangement allows for testing of engineered safeguards initiation and actuation circuits, while preventing the actual loading of safeguards equipment onto the bus.

ST-ESF-2, ST-ESF-4 and ST-ESF-13 were scheduled to be performed on January 8, 1987, with the unit in Mode 1, approximately 100% power. Prior to actually performing ST-ESF-2, a set of initial conditions must be met and signed off. One initial condition was designed to prevent test performance if any inoperable engineered safeguards components existed on the opposite 4160 volt safeguards bus (bus 1A3). The initial condition was inadvertently signed off due to the belief that one raw water pump was exempted from the "no inoperable safeguards" clause by Technical Specification 2.4(1). However, a raw water pump (AC-10A) associated with safeguards bus 1A3 was inoperable due to breaker maintenance. ST-ESF-2 was subsequently performed which disabled the two raw water pumps (AC-10B and AC-10D) associated with 4160 volt bus 1A4 and D2. Technical Specification 2.0.1(2), General Requirements, was applied in this case to determine pump inoperability based upon the fact that all redundant safeguards components were not operable when the emergency power source (D2) for that bus was disabled. Technical Specification 2.4(2) prohibits unit operation in Mode 1 with 3 (of 4) raw water pumps inoperable.

It should be noted that:

1. The two raw water pumps (AC-10B and AC-10D) were capable of being sequenced onto safeguards bus 1A4 in the event of a loss of coolant accident or uncontrolled heat extraction via the AC sequencers.
2. No challenges to the engineered safeguards system occurred during the surveillance test duration.
3. The normal power source (161 KV offsite power) for AC-10B and AC-10D remained operable throughout the surveillance test duration.
4. The total test duration was approximately one hour and 50 minutes, thus the LCO time limit applied to Technical Specification 2.0.1, General Requirements, was not violated.

To prevent possible recurrence, Fort Calhoun Station has changed the initial condition sign off of ST-ESF-2 to ensure that the Shift Supervisor has responsibility for review. In addition, the entire operations staff will be made aware of this event and retraining conducted where appropriate.

**OPPO**

**Omaha Public Power District**  
1623 Harney Omaha, Nebraska 68102 2247  
402/536 4000

February 8, 1987  
LIC-87-078

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

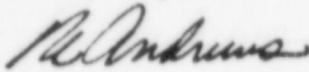
Reference: Docket No. 50-285

SUBJECT: Licensee Event Report for the Fort Calhoun Station

Gentlemen:

Please find attached Licensee Event Report 87-001 dated February 7, 1987. This report is being submitted per requirements of 10 CFR 50.73.

Sincerely,



R. L. Andrews  
Division Manager  
Nuclear Production

RLA/me

Attachment

cc: J. E. Gagliardo, Chief, Reactor Projects Branch, NRC  
W. A. Paulson, NRC Project Manager  
P. H. Harrell, NRC Senior Resident Inspector  
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