

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Fort Calhoun Station, Unit No. 1 DOCKET NUMBER (2) 5050002885 PAGE (3) 1 OF 02

TITLE (4) Inadvertent Start of Emergency Diesel Generator D-1 During Performance of Surveillance Test

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)
05	18	88	88	014	00	06	17	88	N		05000

OPERATING MODE (9) 1

POWER LEVEL (10) 100

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

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(e)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Daniel J. Rosloneic, Shift Technical Advisor TELEPHONE NUMBER 410 242 61-1410 1111

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO EXPECTED SUBMISSION DATE (15)

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

During performance of ST-ESF-6 F.2 Appendix E, monthly Emergency Diesel Generator surveillance test, on May 18, 1988 at approximately 1407 CDT, Emergency Diesel Generator D-2 tripped, resulting in an auto-start of Emergency Diesel Generator D-1. It was later determined that the lock-out relay tripped due to a reverse current flow across the output breaker. When the lock-out relay tripped it resulted in an auto-start of Emergency Diesel Generator D-1. Emergency Diesel Generator D-1 responded as designed and was shutdown and returned to emergency standby at 1415 CDT. The resident inspector was immediately notified, and a report to the NRC was made at 1600 CDT pursuant to 10 CFR 50.72(b)(2)(ii). Subsequent investigations failed to determine a root cause for the diesel trip.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Fort Calhoun Station, Unit No. 1	DOCKET NUMBER (2) 050002185	LER NUMBER (8)			PAGE (3)	
		YEAR 88	SEQUENTIAL NUMBER -014	REVISION NUMBER -010	02	OF 02

TEXT (If more space is required, use additional NRC Form 365A's (17))

During performance of ST-ESF-6 F.2 Appendix E, monthly Emergency Diesel Generator surveillance test, on May 18, 1988 at approximately 1407 CDT, Emergency Diesel Generator D-2 tripped, resulting in an auto-start of Emergency Diesel Generator D-1. D-2 was declared inoperable at this time. During the loading portion of the procedure, the Control Room Operator noticed an excessive current reading, approximately 525 Amperes, across the output breaker. The Operator responded by lowering the Emergency Diesel Generator governor setting to reduce the diesel generator output current. As the governor setting was lowered, lock-out relay 86/D2 tripped shutting down Emergency Diesel Generator D-2. It was later determined that the lock-out relay tripped due to a reverse current flow across the output breaker, possibly due to a voltage spike. When the lock-out relay tripped it resulted in an auto-start of Emergency Diesel Generator D-1. Emergency Diesel Generator D-1 responded as designed and was shutdown and returned to emergency standby at 1415 CDT. The resident inspector was immediately notified and a report to the NRC was made at 1600 CDT pursuant to 10 CFR 50.72(b)(2)(ii).

An investigation into the cause of the excessive current condition and subsequent reverse current was initiated. Among many other things, this investigation included a check of the fuses for the generator field winding voltage regulator to ensure no damage to the diesel had occurred. The diesel was determined to be in proper working order, and no cause for the trip of Emergency Diesel Generator D-2 could be determined. Following the investigation at 1626 CDT, May 18, 1988, Emergency Diesel Generator D-2 was restarted and loaded to prove operability. The diesel performed satisfactorily and was shutdown and returned to emergency standby condition.

A review of the surveillance test on May 18, 1988, determined that the test had only run 59 minutes instead of the 1 hour requirement. The LCO of May 18, 1988 was re-entered, indicated on the control room log, and an additional run of the test was scheduled.

On May 19, 1988 at 0917 CDT, Emergency Diesel Generator D-2 was retested to ensure operability. During the test it was noticed that an annunciator was illuminated, and the Emergency Diesel Generator was immediately shutdown to investigate the problem. A maintenance order was written to investigate and repair the Emergency Diesel Generator. The investigation determined that a fuse in the 240 VAC portion of the generators' backup field flashing control circuitry was found to have failed. The failed fuse was replaced and the Emergency Diesel Generator D-2 was retested at 1401 CDT, using ST-ESF-6 F.2 Appendix E, to verify operability. After successful completion of the test the Emergency Diesel Generator was shutdown and declared operable at 1559 CDT.

The Emergency Diesel Generators are equipped with protective lock-out relays to prevent damage to the generator and engine assembly. The lock-out relays 86/D2 and 86/D1 are designed to trip the Emergency Diesel Generators on overcurrent, phase differential, and reverse power (reverse current) across the breaker. The tripping of this lock-out relay is designed to give an idle speed start of the opposing Emergency Diesel Generator.

OPPO

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

June 17, 1988
LIC-88-483

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

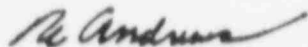
Reference: Docket No. 50-285

Gentlemen:

SUBJECT: Licensee Event Report for the Fort Calhoun Station

Please find attached Licensee Event Report 88-014 dated June 17, 1988. This report is being submitted per requirements of 10 CFR 50.73.

Sincerely,



R. L. Andrews
Division Manager
Nuclear Production

RLA/me

Attachment

c: R. D. Martin, NRC Regional Administrator
P. D. Milano, NRC Project Manager
P. H. Harrell, NRC Senior Resident Inspector
INPO Records Center
American Nuclear Insurers

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