NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Callaway Plant Unit 1	0 5 0 0 0 4 8 3	1 OF 0 2

TITLE (4)

Reactor Trip Due to Feedwater Isolation Valve Failure

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 5 0 0 0
0 1	0 2	8 5	8 5	–	0 0 1	–	0 0	0 1	2 8	8 5		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)			
1		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	0 5 0	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
William R. Campbell - Superintendent, Engineering	AREA CODE 3 1 4 — 6 7 6 – 8 4 6 9

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	S J	I S V	A 3 9 1	N							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On 1/2/85 an inadvertent Steam Generator (S/G) Lo-Lo level Reactor Trip occurred.

With the reactor at approximately 50% power, the S/G 'A' Feedwater Isolation Valve (FWIV) fast closed. S/G 'A' level proceeded to drop rapidly until a S/G 'A' Lo-Lo level Reactor Trip was initiated. A Turbine Trip, Feedwater Isolation, Auxiliary Feedwater Actuation and S/G Blowdown Isolation also occurred coincident with the Reactor Trip, as designed. All equipment and personnel responded as expected following the trip.

Subsequent investigation revealed that the FWIV fast closed due to a failed solenoid in the valve control circuit. The solenoid was replaced and the valve returned to service.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Callaway Plant Unit 1	0 5 0 0 0 4 8 3	8 5	— 0 0 1	— 0 0	0 2 OF 0 2

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

On 1/2/85 an unplanned Reactor Trip occurred. Prior to the trip, the plant was in Mode 1 at approximately 50% power.

At 0740 CST, Feedwater Isolation Valve (FWIV) AE-FV-39 "fast closed." As the plant was at 50% power, the level in Steam Generator (S/G) 'A' proceeded to drop rapidly. Approximately forty seconds after the FWIV closed, a Reactor Trip occurred due to a S/G 'A' Lo-Lo level. Other actuations that occurred coincident with the Reactor Trip were a Turbine Trip, Feedwater Isolation, Auxiliary Feedwater Actuation and S/G Blowdown Isolation. Operators recovered from the event via plant emergency operating procedures. All equipment and personnel responded as expected following the actuations.

Subsequent investigation identified that a failed solenoid valve in the FWIV hydraulic actuator unit had caused the FWIV closure. (Manufacturer: Anchor/Darling Valve Co. - Model No. S.O. E6181). When the normally energized solenoid failed, the solenoid valve position shifted to the "fast close" configuration. This aligned the high pressure hydraulic accumulators to the hydraulic piston, which is attached to the FWIV valve stem, causing the FWIV to shut.

The solenoid valve was replaced and the FWIV returned to service. No additional corrective actions are planned, as this incident is considered a single random failure event.

Loss of normal feedwater flow from 100% power is an analyzed event in the plant safety analysis report. Results of the analysis show that a loss of normal feedwater does not adversely affect the core, the Reactor Coolant System, or the steam system, since the auxiliary feedwater capacity is such that reactor coolant water is not relieved from the pressurizer relief or safety valves. Therefore, at no time did this event pose a threat to the public health or safety.

Previous occurrences: none

UNION ELECTRIC COMPANY
CALLAWAY PLANT

MAILING ADDRESS:
P.O. BOX 620
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January 28, 1985

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

ULNRC-1023

Gentlemen:

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
FACILITY OPERATING LICENSE NPF-30
LICENSEE EVENT REPORT 85-001-00
REACTOR TRIP DUE TO FEEDWATER ISOLATION VALVE FAILURE

The enclosed Licensee Event Report is submitted pursuant to 10 CFR 50.73(a)(2)(iv) concerning inadvertent Engineered Safety Features actuations caused by a Feedwater Isolation valve failure.

Andrew P. Neuhalfen

S. E. Miltenberger
Manager, Callaway Plant

WRC/WRR/JMS/drs
Enclosure

cc: Distribution attached

IE22
1/1

cc distribution for ULNRC-1023

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