

## LICENSEE EVENT REPORT (LER)

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

TITLE (4) Low Steamline Pressure Safety Injection Actuation

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	3	3	0	8	5	8	5	0	1	9	0	5	0	0	0
0	3	3	0	8	5	8	5	0	1	9	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)
3	20.402(b) <input checked="" type="checkbox"/> 50.73(a)(2)(iv) 73.71(b)
POWER LEVEL (10) 0 0 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)(ix)

## LICENSEE CONTACT FOR THIS LER (12)

NAME Michael E. Taylor - Superintendent, Operations TELEPHONE NUMBER 3 1 4 6 7 6 - 8 2 0 7

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

## 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)

On 3/30/85 at approximately 0613 CST an inadvertent Safety Injection actuation was initiated from a Low Steamline Pressure Signal. An Unusual Event was declared at 0620 and the federal, state, and local agencies were notified in accordance with emergency plan procedures. The appropriate procedural steps were followed to assure the plant was in a stable condition and the Unusual Event was terminated at 0639.

The atmospheric steam dump valves were being controlled in automatic with manual adjustments to the steam pressure setpoints in order to sustain the desired Primary System cooldown rate during a planned shutdown. The Reactor had been shutdown at 0230 on 3/30/85. When the Reactor Operator adjusted the steam dump valves, the steam pressure decreased on the order of 10 to 15 p.s.i. The steam pressure signal fed into the Engineered Safety Feature logic is rate sensitive and amplified by a factor of 10. Thus, the 10 to 15 p.s.i. decrease in steam pressure appeared to be a 100 to 150 p.s.i. decrease, which was sufficient to cause a Safety Injection.

There was no damage to plant equipment or release of radioactivity as a result of this incident. At no time did this event pose a threat to the public health or safety.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Callaway Plant Unit 1	0500048385	01	9	010	02	OF	03

TEXT (If more space is required, use additional NRC Form 388A's) (17)

On 3/30/85 at approximately 0613 CST an inadvertent Safety Injection actuation was initiated from a Low Steamline Pressure Signal. An Unusual Event was declared at 0620 and the federal, state, and local agencies were notified in accordance with emergency plan procedures. The appropriate procedural steps were followed to assure the plant was in a stable condition and the Unusual Event was terminated at 0639.

The event occurred during a planned shutdown for steam strainer modifications, other miscellaneous maintenance, and surveillance testing. The Unit had been removed from service at 2301 on 3/29/85 and the Reactor had been shutdown at 0230 on 3/30/85.

The atmospheric steam dump valves were being controlled in automatic with manual adjustments to the steam pressure setpoints in order to sustain the desired steam flow rate through the steam generators (S/G) to cooldown the Primary System. As the steam dumps are opened the steam pressure will decrease with a corresponding decrease in Primary System temperature. A new equilibrium condition will then be established at a lower steam pressure and lower Primary System temperature than prior to the steam dump adjustment.

As the Primary System continues to cooldown the steam pressure will decrease such that the steam dumps will require adjusting in order to continue the desired cooldown rate. At the time of the event the Primary System had been cooled from the no-load temperature of 557°F to approximately 525°F. The steam pressure had decreased from 1110 p.s.i.g. to approximately 740 p.s.i.g.

When the Reactor Operator adjusted the steam pressure setpoint for S/G Loop 4 atmospheric steam dump valves the steam pressure decreased on the order of 10 to 15 p.s.i. However, the steam pressure signal fed into the Engineered Safety feature logic is rate sensitive and amplified by a factor of 10. Thus, the 10 to 15 p.s.i. decrease in steam pressure appeared to be a 100 to 150 p.s.i. decrease. The setpoint of the Low Steamline Pressure Safety Injection Signal is 615 p.s.i.g. Therefore, the 10 to 15 p.s.i. decrease, as amplified by the rate compensation, was sufficient to cause a Safety Injection actuation.

The Safety Injection resulted in automatically starting the Centrifugal Charging Pumps, Safety Injection Pumps, Residual Heat Removal Pumps, Auxiliary Feedwater Pumps, Emergency Diesel Generators, and automatically injecting Emergency Core Cooling System water into the Reactor Coolant System. All emergency systems responded as designed.

Following the Safety Injection, operators performed Emergency Operating Procedures E-0, Reactor Trip or Safety Injection, and ES.03, Safety Injection Termination Following Spurious Safety Injection, and restored plant systems for continuing plant cooldown.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)

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LER NUMBER (6)

PAGE (3)

Callaway Plant Unit 1

0 5 0 0 0 4 8 3 8 5 - 0 1 9 - 0 0 0 3 OF 0 3

TEXT (If more space is required, use additional NRC Form 385A's) (17)

To prevent recurrence, a statement has been added to general operating procedure OTG-ZZ-00006, Plant Cooldown Hot Standby to Cold Shutdown, cautioning operators about the possibility of initiating a Safety Injection due to the rate compensation effects at reduced pressure combined with pressure transients when cycling the atmospheric steam dump valves.

There was no damage to plant equipment or release of radioactivity as a result of this incident. 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:  
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April 29, 1985

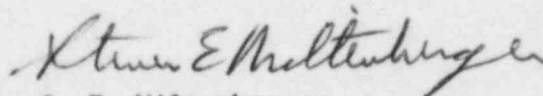
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ULNRC-1084

Gentlemen:

DOCKET NUMBER 50-483  
CALLAWAY PLANT UNIT 1  
FACILITY OPERATING LICENSE NPF-30  
LICENSEE EVENT REPORT 85-019-00  
LOW STEAMLINE PRESSURE SAFETY INJECTION ACTUATION

The enclosed Licensee Event Report is submitted pursuant to  
10 CFR 50.73(a)(2)(iv) concerning a low steamline pressure safety  
injection actuation initiated during plant cooldown.

  
S. E. Miltenberger  
Manager, Callaway Plant

MET/WRR/RCW/drs  
Enclosure

cc: Distribution attached

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cc distribution for ULNRC-1084

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