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)
Manual Reactor Protection System Actuation and Challenge to PORV

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 7	1 6	8 4	8 4	0 1 5	0 0	0 8	1 0	8 4		0 5 0 0 0
										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)			
5	20.402(b)	20.405(c)	X 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)	X 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)	Special Report
	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
Michael E. Taylor - Superintendent, Operations	AREA CODE 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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

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 7/16/84 at 0158 CDT, a pressure transient occurred in the Reactor Coolant System (RCS) as a result of a loss of instrument air while the plant was in mode 5. A pressurizer power-operated relief valve (PORV) was initially cycled manually to reduce RCS pressure. Also, to devote full attention to the transient, the Reactor Operator opened the Reactor Trip Breakers to terminate Control Rod Drive Mechanism Timing and Digital Rod Position Indication System Testing in progress at the time. Instrument air was restored for a brief period of time, during which the RCS was being returned to previous conditions, but then was lost again at 0225 CDT. Due to the resulting increase in RCS pressure, the PORV lifted automatically. Instrument air was restored and RCS pressure maintained at 350 psig at 0245 CDT.

The maximum pressure reached during the transient was 450 psig and there was no damage to plant equipment or release of radioactive material. Therefore, this event posed no threat to the public health or safety. The Special Report specified under item 11 above is required by Technical Specification Section 3.4.9.3 to report the use of a PORV to mitigate a RCS pressure transient.

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NRC Form 366
(9-83)

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Callaway Plant Unit 1	0 5 0 0 0 4 8 3	8 4	— 0 1 5	— 0 0	0 2 OF 0 2

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

This LER is intended to satisfy two reporting requirements pertaining to events which occurred during a Reactor Coolant System (RCS) pressure transient. First, the reporting requirement due to actuation of the Reactor Protection System, i.e. opening of the Reactor Trip Breakers, and second, the Special Report required by Technical Specification Section 3.4.9.3 concerning the use of a pressurizer power-operated relief valve (PORV) to mitigate a RCS pressure transient. It should be noted that the opening of the Reactor Trip Breakers was a voluntary and precautionary measure taken enabling suspension of Control Rod Drive Mechanism (CRDM) Timing and Digital Rod Position Indication (DRPI) System Testing to devote full attention to the RCS pressure transient.

On 7/16/84, prior to the transient, the plant was in mode 5, RCS pressure was being maintained between 350 and 375 psig, RCS temperature was 140°F, and Reactor Coolant Pump (RCP) D was in operation. At approximately 0158 CDT, the "A" train of instrument air was being removed from service to inspect and/or replace the desiccant in the air dryer. The "B" train dryer appeared to be operating properly so the "A" train was isolated. At this time, instrument air was lost because air flow could not be established through the "B" train air dryer. This resulted in a loss of letdown flow from the Chemical and Volume Control System due to the letdown valves failing closed and caused the Positive Displacement Charging Pump (PDP) to fail to full speed.

To reduce the increasing RCS pressure, the Reactor Operator (RO) manually cycled the PORV and secured the PDP and RCP D. He also opened the Reactor Trip Breakers to terminate CRDM Timing and DRPI System Testing and devote full attention to the transient. RCS pressure decreased and normal charging and letdown were reestablished after instrument air was returned to service.

Instrument air was lost again at 0225 CDT which caused letdown to be isolated and the PDP to fail to full speed. This resulted in a RCS pressure increase which automatically lifted the PORV. The PDP was secured and RCS pressure decreased. At 0245 CDT, the "A" train of the Instrument Air System was returned to service, normal charging and letdown restored, and RCS pressure stabilized at 350 psig.

The maximum pressure reached during the transient was 450 psig and there was no damage to plant equipment or release of radioactive material. At no time did this event pose a threat to the public health or safety.

Since the reportable events constitute conservative operational actions no specific corrective action is planned.

Previous occurrences: none

UNION ELECTRIC COMPANY
CALLAWAY PLANT

MAILING ADDRESS:
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August 10, 1984

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

ULNRC-899

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
LICENSEE EVENT REPORT 84-015-00
MANUAL REACTOR PROTECTION SYSTEM
ACTUATION AND CHALLENGE TO PORV

Gentlemen:

The enclosed Licensee Event Report is submitted pursuant to 10 CFR 50.73(a)(2)(iv) concerning a manual actuation of the Reactor Protection System and also the Special Report requirements of Callaway Technical Specification Section 3.4.9.3 concerning the challenge to a power-operated relief valve.

S. E. Miltenberger
Manager, Callaway Plant

APN & JED JWK
APN/MET/JED/JWK/drs
Enclosure

cc: Distribution attached

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cc distribution for ULNRC-899

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