

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 8 1 3 1	PAGE (3) 1 OF 2
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TITLE (4)
Inadvertent Engineered Safety Feature 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)
1	0	6	8	4	8	0	4	8			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (8) 3

POWER LEVEL (10) 0 0 0

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

20.402(b)	20.406(e)	<input checked="" type="checkbox"/>	80.73(a)(2)(iv)	73.71(b)
20.406(a)(1)(i)	80.36(e)(1)	<input type="checkbox"/>	80.73(a)(2)(v)	73.71(c)
20.406(a)(1)(ii)	80.36(e)(2)	<input type="checkbox"/>	80.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
20.406(a)(1)(iii)	80.73(a)(2)(i)	<input type="checkbox"/>	80.73(a)(2)(viii)(A)	
20.406(a)(1)(iv)	80.73(a)(2)(ii)	<input type="checkbox"/>	80.73(a)(2)(viii)(B)	
20.406(a)(1)(v)	80.73(a)(2)(iii)	<input type="checkbox"/>	80.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Charles D. Naslund - Superintendent, I&C	TELEPHONE NUMBER AREA CODE 3 1 1 4 6 1 7 1 6 1 - 1 8 1 5 1 0 0
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS
B	J	C B K R ₁	W L 2 0	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)
MONTH 0 | DAY 2 | YEAR 0 | 1 | 8 | 5

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

This LER concerns three similar events in which a Feedwater Isolation occurred.

On 10/6/84, 10/11/84 and 10/22/84 a Feedwater Isolation Signal (FWIS) was generated when Reactor Trip Breaker 'A' immediately reopened when operators attempted to close the Reactor Trip Breakers. In all three incidents, equipment and personnel responded as expected following the FWIS.

It was first discovered that residual heat in the Undervoltage (UV) trip coils on the breaker would not allow the coil to re-energize after a trip. The UV coil was replaced on Reactor Trip Breaker 'A' on 10/15/84. Further investigation revealed a potential concern that the contact development on the Reactor Trip/Close handswitch, located on the Main Control Board, would also cause the UV coil to remain de-energized in certain situations following a trip operation. A design change is currently being reviewed to rewire the contacts.

However, as the root cause of these incidents is still uncertain at this time, a supplement to this LER will be issued by 2/1/85 providing detailed corrective actions.

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PDR ADOCK 05000483
S PDR

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 05000481384	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		84	048	00	01	2 OF 2

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

This LER concerns three similar events of inadvertent Engineered Safety Feature Actuations that occurred on 10/6/84, 10/11/84 and 10/22/84. Prior to each event, the plant was in Mode 3 with Reactor Coolant System temperature and pressure approximately 557°F and 2235 psig, respectively.

The events occurred when operators attempted to close the Reactor Trip Breakers. Upon closure, Reactor Trip Breaker 'A' (manufacturer: Westinghouse - Type DS-416) immediately reopened, generating a Feedwater Isolation Signal (FWIS) as designed. Reactor Trip Breaker 'B' remained closed. All equipment and personnel responded as expected following the events.

A generic problem with the Reactor Trip Breaker Undervoltage (UV) coil reset voltage was identified prior to these events. The UV coil utilized in the Reactor Trip Switchgear had an unadjustable reset voltage which was approximately equal to the power supply voltage at the coil. Additionally, it was discovered that residual heat in the coil effectively raised the reset set point. Thus, after the UV coil had been energized for a length of time and the breaker was tripped, the UV coil would not allow the breaker to reclose, in certain cases, until it had cooled. As interim corrective action until UV coils with a lower reset voltage could be obtained, the power supply voltage was raised to allow the breakers to reset. A new UV coil was received on-site but was not immediately installed, as the interim corrective action described above appeared to have alleviated the problem with the UV coils.

On 10/6/84 and 10/11/84 Reactor Trip Breaker 'A' failed to reclose and a work request was generated to replace the UV coil. This was completed on 10/15/84. Additionally, after the 10/6/84 event, further investigation revealed a potential wiring concern on the Reactor Trip/Close handswitch on the Main Control Board. The contact development, as wired, allowed the UV coils to remain de-energized following a trip operation. The UV trip lever must be restrained by the UV coil before the closing coil is energized. If the trip lever is not restrained, the spring action from breaker closure could allow the trip lever to release the breaker. A modification to the handswitch is currently being reviewed.

On 10/22/84 Reactor Trip Breaker 'A' again failed to reclose. Although several concerns have been identified, the root cause of these incidents is still uncertain at this time. A supplement to this LER will be issued by 2/1/85 providing detailed corrective actions.

The primary function of the Reactor Trip Breakers (i.e., interrupting the Control Rod Drive power supply on a Reactor Trip signal) was not impacted by these findings. The breakers operate properly in performing their safety function. Therefore, at no time was the public health or safety compromised.

Previous occurrences: none

UNION ELECTRIC COMPANY
CALLAWAY PLANT

MAILING ADDRESS:
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November 5, 1984

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

ULNRC-965

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
FACILITY OPERATING LICENSE NPF-30
LICENSEE EVENT REPORT 84-048-00
INADVERTENT ENGINEERED SAFETY FEATURE ACTUATIONS

Gentlemen:

The enclosed Licensee Event Report is submitted pursuant to 10 CFR 50.73(a)(2)(iv) concerning three inadvertent Feedwater Isolations.

S. E. Miltenberger
S. E. Miltenberger
Manager, Callaway Plant

CDN/WRR/JMS/drs
Enclosure

cc: Distribution attached

IE22
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cc distribution for ULNRC-965

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