

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 8 1 3	PAGE (3) 1 OF 0 4
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TITLE (4)
Non-Environmentally Qualified Terminal Blocks

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	2	0 1 8 5	8 5	0 0 7	0 0 0	3	0	4 8 5			0 5 0 0 0																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9)</td> <td style="width:15%;">1</td> <td colspan="10">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10)</td> <td>1 0 0</td> <td>20.402(b)</td> <td>20.405(c)</td> <td>50.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td></td> <td>20.405(a)(1)(ii)</td> <td>50.38(e)(1)</td> <td>50.73(a)(2)(v)</td> <td>73.71(e)</td> </tr> <tr> <td></td> <td>20.405(a)(1)(iii)</td> <td>50.38(e)(2)</td> <td>50.73(a)(2)(vii)</td> <td rowspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td></td> <td>20.405(a)(1)(iii)</td> <td>X 50.73(a)(2)(ii)</td> <td>50.73(a)(2)(viii)(A)</td> </tr> <tr> <td></td> <td>20.405(a)(1)(iv)</td> <td>50.73(a)(2)(ii)</td> <td>50.73(a)(2)(viii)(B)</td> </tr> <tr> <td></td> <td></td> <td>20.405(a)(1)(iv)</td> <td>50.73(a)(2)(iii)</td> <td>50.73(a)(2)(ix)</td> </tr> </table>												OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)										POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)		20.405(a)(1)(ii)	50.38(e)(1)	50.73(a)(2)(v)	73.71(e)		20.405(a)(1)(iii)	50.38(e)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)		20.405(a)(1)(iii)	X 50.73(a)(2)(ii)	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)(iv)	50.73(a)(2)(iii)	50.73(a)(2)(ix)
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LICENSEE CONTACT FOR THIS LER (12)

NAME James Earl Davis - Superintendent, Compliance	TELEPHONE NUMBER AREA CODE: 3 1 1 4 6 1 7 1 6 -18 1 2 1 3 1 6
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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)

<input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
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ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single space typewritten lines) (16)

While reviewing the Callaway Plant's compliance with Generic Letter 84-24, Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants, and NRC Information Notice 83-72, Environmental Qualification Testing Experience, it was discovered between the dates of 2/1/85 and 2/7/85 that six valves did not have environmentally qualified terminal blocks installed in Limatorque Actuators. Three of these valves are Containment Isolation valves identified in Technical Specification 3.6.3 and are required to be operable in Modes 1, 2, 3 and 4. The plant first entered Mode 4 on 8/10/84.

Upon determination that the terminal blocks were not qualified, the valves were declared inoperable and the appropriate actions required by Technical Specifications were taken. The terminal blocks for the six valves were replaced with environmentally qualified Marathon 300 type terminal blocks by 2/13/85. In addition, an evaluation and/or re-inspection of the remainder of the Limatorque valves in the equipment qualification program is in progress.

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

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 8 3 8 5	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		0 0 7	0 0 7	0 0 0	0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 386A's) (17)

On 12/27/84 Generic Letter 84-24, Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants, was issued by the NRC to have licensees certify compliance to 10 CFR 50.49. This certification of Compliance was to include adherence to numerous NRC IE Information Notices including Notice 83-72, Environmental Qualification Testing Experience, dated 10/28/83.

Union Electric received Generic Letter 84-24 on 1/14/85 and commenced a review of the environmental qualification issues identified. On 1/21/85, while reviewing the documentation associated with the environmental qualification of Limitorque Valve Operators as addressed by IE Information Notice 83-72, a problem with some field inspection checklists involving terminal blocks was discovered. It was noted that on 45 qualified operators, the inspection checklists identified Marathon type terminal blocks but did not specify the model number. In addition, one inspection checklist (LF-FV-95) could not be located. It was therefore determined that a re-inspection of the 46 valves would be performed to verify that environmentally qualified terminal blocks were installed. This inspection began on 2/1/85.

The results of this inspection revealed 6 valves that did not have environmentally qualified terminal blocks. This problem was also included in the Union Electric response to Generic Letter 84-24, ULNRC-1042 dated 2/13/85.

The 6 valves that were identified are as follows:

1. LF-FV-95; Containment Normal Sump Pumps Discharge Header Containment Flow Control Valve.
2. EG-HV-126; Component Cooling Water to Reactor Coolant System Containment Bypass Protection 'A' Hand Control Valve.
3. EG-HV-54; Component Cooling Water Train 'B' Supply Isolation Hand Control Valve.
4. EG-HV-131; Component Cooling Water from Reactor Coolant System Containment EG-HV-59 Bypass Isolation Hand Control Valve.
5. EF-HV-32; Essential Service Water Train 'B' to Containment Air Coolers Outer Containment Hand Control Valve.
6. EF-HV-60; Essential Service Water Train 'B' from Component Cooling Water Heat Exchanger 'B' Hand Control Valve.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 8 3 8 5	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (If more space is required, use additional NRC Form 388A's) (17)

Valves LF-FV-95, EG-HV-131, and EF-HV-32 are Containment Isolation Valves identified in Technical Specification 3.6.3 and are required to be operable in Modes 1, 2, 3 and 4. The plant first entered Mode 4 on 8/10/84. Upon determination that the terminal blocks were not environmentally qualified, the valves were declared inoperable and the appropriate actions required by Technical Specifications were taken. By 2/13/85 the terminal blocks for the 6 valves were replaced with environmentally qualified Marathon 300 type terminal blocks.

An engineering evaluation, pertaining to the safety significance of having the non-environmentally qualified terminal blocks installed in the plant, has been conducted and no significant safety concerns have been identified as shown below..

LF-FV-95 - redundant protection for containment isolation is provided by LF-FV-96 which is not a Limitorque valve. Additional protection is provided by the LF system integrity which would act as an isolation boundary.

EG-HV-131 - valve is normally closed and receives a close signal on SIS.

EF-HV-32 - valve is normally open and receives an open signal on SIS.

EG-HV-126 - (same as EG-HV-131 above)

EG-HV-54 - valve is an operator controlled valve used to switch between A&B trains and does not receive an accident signal.

EF-HV-60 - valve is normally open (throttled) and receives a signal to close on SIS. If it failed to close, it would add an additional 7,569 GPM to B train ESW flow (LOCA). ESW train B LOCA flow (with EF-HV-60 stuck open) would be 23,894 GPM which is still on the ESW pump curve. The control room would have several indications of this condition which would prompt action. The handswitch indicating lights for EF-HV-60 would show the valve to be open whereas the comparable A train valve EF-HV-54 would be closed. Control room flow indicators EF-FI-54 (B train) and EF-FI-53 (A train) would also indicate a flow mismatch. Control room temperature indicators EG-TI-32 (B train CCW outlet) and EG-TI-31 (A train CCW outlet) would show a temperature mismatch. With the problem identified, EF-HV-60 would be hand cranked closed.

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FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 8 3 8 5 - 0 0 7 - 0 0 0 4 OF 0 4	LER NUMBER (6)			PAGE (3)	
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TEXT (If more space is required, use additional NRC Form 388A's) (17)

In addition, 16 valves for which the original field inspection forms identified the terminal blocks as Marathon 300 type have been inspected as of 3/1/85. All 16 were verified to have environmentally qualified Marathon 300 type terminal blocks installed.

To date, 62 of a total of 154 environmentally qualified Limitorque valves have been re-inspected since 2/1/85. The remainder will be evaluated to determine if acceptable documentation exists to assure environmentally qualified terminal blocks are currently installed. If such a determination cannot be made the affected valves will be inspected to assure qualified terminal blocks are installed. Should additional problems be identified a supplement to this report will be issued.

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

Previous occurrences: Final 10 CFR 50.55(e)/Part 21 Report U-82 transmitted via ULNRC-827 dated 5/22/84 and Generic Letter 84-24 transmitted via ULNRC-1042 dated 2/13/85.

UNION ELECTRIC COMPANY
CALLAWAY PLANT

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March 4, 1985

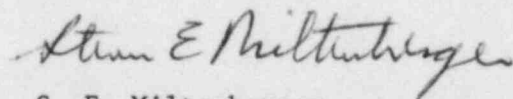
U. S. Nuclear Regulatory Commission
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Washington, DC 20555

ULNRC- 1060

Gentlemen:

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
FACILITY OPERATING LICENSE NPF-30
LICENSEE EVENT REPORT 85-007-00
NON-ENVIRONMENTALLY QUALIFIED TERMINAL BLOCKS

The enclosed Licensee Event Report is submitted pursuant to 10 CFR 50.73(a)(2)(1) concerning non-environmentally qualified terminal blocks found in Limitorque Operators.



S. E. Miltenberger
Manager, Callaway Plant

WRR/RCW/drs
Enclosure

cc: Distribution attached

IE22
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cc distribution for ULNRC-1060

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