

Power Reactor

Event # 40283

| Site: CALLAWAY                              |            | Notification Date / Time: 10/29/2003 10:05 (EST) |                                     |                 |            |                 |
|---------------------------------------------|------------|--------------------------------------------------|-------------------------------------|-----------------|------------|-----------------|
| Unit: 1                                     | Region: 4  | State : MO                                       | Event Date / Time: 10/29/2003 (CST) |                 |            |                 |
| Reactor Type: [1] W-4-LP                    |            | Last Modification: 10/29/2003                    |                                     |                 |            |                 |
| Containment Type: DRY AMB                   |            |                                                  |                                     |                 |            |                 |
| NRC Notified by: DAVID M. EPPERSON          |            | Notifications: TROY PRUETT R4                    |                                     |                 |            |                 |
| HQ Ops Officer: STEVE SANDIN                |            | JACK FOSTER NRR                                  |                                     |                 |            |                 |
| Emergency Class: NON EMERGENCY              |            |                                                  |                                     |                 |            |                 |
| 10 CFR Section: 21.21 UNSPECIFIED PARAGRAPH |            |                                                  |                                     |                 |            |                 |
| Unit                                        | Scram Code | RX Crit                                          | Init Power                          | Initial RX Mode | Curr Power | Current RX Mode |
| 1                                           | N          | Yes                                              | 100                                 | Power Operation | 100        | Power Operation |

10 CFR 21 NOTIFICATION FOR GE MAGNE-BLAST BREAKER TUBE AND PISTON ASSEMBLIES

"This notice is being sent within the two day period to inform you of a safety concern related to tube and piston assemblies for GE Magne-Blast breakers (model AM-4.16-350-2h medium voltage circuit breaker).

"The concern is specific to tube and piston assemblies supplied under part number Q0213X0343R094. All five assemblies supplied to AmerenUE contain a dimensional design error which would cause the assembly to interfere and bind with the circuit breaker movable contact assembly, which would render the breaker inoperative."

"All basic components with the defect at Callaway were returned to GENE . . ."

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JE#9



AmerenUE  
Callaway Plant

Ronald D. Affolter  
Vice President - Nuclear

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573.676.4056 fax

October 28, 2003

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Stop P1-137  
Washington, DC 20555-0001

ULNRC-04912

Ladies and Gentlemen:

**DOCKET NUMBER 50-483  
CALLAWAY PLANT UNIT 1  
UNION ELECTRIC CO.  
FACILITY OPERATING LICENSE NPF-30  
10 CFR 21 notification for GE Magne-Blast breaker tube and piston assemblies**

This notice is being sent within the two day period to inform you of a safety concern related to tube and piston assemblies for GE Magne-Blast breakers (model AM-4.16-350-2h medium voltage circuit breaker).

The concern is specific to tube and piston assemblies supplied under part number Q0213X0343R094. All five assemblies supplied to AmerenUE contain a dimensional design error which would cause the assembly to interfere and bind with the circuit breaker movable contact assembly, which would render the breaker inoperative.

If you have any questions, please contact David M. Epperson at 573/676-4664 or via e-mail at [dmepperson@cal.ameren.com](mailto:dmepperson@cal.ameren.com).

Very truly yours,



Ronald D. Affolter  
Vice President, Nuclear

RDA/JER/slk

Enclosure

ULNRC04912

Page 2

cc: Mr. Bruce S. Mallet  
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U.S. Nuclear Regulatory Commission  
Region IV  
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Arlington, TX 76011-4005

Senior Resident Inspector  
Callaway Resident Office  
U.S. Nuclear Regulatory Commission  
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Mr. Jack N. Donohew (2 copies)  
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U. S. Nuclear Regulatory Commission  
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Manager, Electric Department  
Missouri Public Service Commission  
PO Box 360  
Jefferson City, MO 65102

Records Center  
Institute of Nuclear Power Operations  
700 Galleria Parkway  
Atlanta, GA 30339

Name and address of individuals informing the NRC: David M. Epperson  
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AmerenUE  
Callaway Plant  
P.O. Box 620  
Fulton, MO 65251

Basic component which contains a defect: G. E. Nuclear Magne-Blast breaker model  
AM-4.16-350-2H medium voltage circuit breaker tube  
and piston assembly, part number Q0213X0343R094

Firm supplying basic component which contains a defect: General Electric Nuclear Energy

Nature of defect: Dimensional Design error which would cause the assembly to interfere and bind with the circuit breaker movable contact assembly, which would render the breaker inoperative. A manufacturing defect was also present in one of the five assemblies supplied to Callaway. An incomplete crimp on one of the assemblies could have rendered the breaker inoperative. If the defective assemblies were installed, this could have created the potential for multiple common-cause circuit breaker failures.

Date on which information of the defect was obtained: 09-04-2003

Location of basic components containing defect: All five assemblies supplied to Callaway under Ameren P.O. 096441 were returned to GE Nuclear for evaluation. GENE states that the only utility to have ordered the assembly after the design change (which caused the defect) was the Callaway Plant/AmerenUE. However, Callaway is not in the position to determine if similar assemblies with this defect have been supplied commercially, through third party dedication entities, or through GE overhaul facilities.

Corrective Action which has been taken: All basic components with the defect at Callaway were returned to GENE under RMA #U03011.

Advice related to the defect: It is not believed that any installed breakers at other nuclear power plants are affected by this issue because standard maintenance procedures based on GE breaker instructions GEK-7320 would have detected that the primary contact gap would not meet acceptance criteria. Additionally, breaker cycling after maintenance would have resulted in binding of the breaker during these pre installation test.