



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.  
ASSISTANT VICE PRESIDENT

Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, N.W.  
Suite 3100  
Atlanta, Georgia 30303



Attention: Mr. J. P. O'Reilly, Regional Administrator

Dear Mr. O'Reilly:

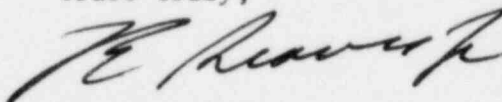
SUBJECT: Grand Gulf Nuclear Station  
Units 1 and 2  
Docket Nos. 50-416/417  
File 0260/15525/15526  
PRD-80/68, Final Report,  
Potter & Brumfield AMF Type  
Relay Terminations  
AECM-82/61

References: 1) AECM 80/302, 12/4/80  
2) AECM-81/75, 2/26/81  
3) AECM-81/170, 5/19/81  
4) AECM-81/382, 10/5/81  
5) AECM-81/491, 12/22/81

On November 4, 1980, Mississippi Power & Light Company notified Mr. J. Rausch, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns loose wire terminations on Potter & Brumfield AMF type relays used in the Main Steam Isolation Valve-Leakage Control System panels.

We have determined that this deficiency is reportable under the provisions of 10CFR50.55(e) and 10CFR21 for Mississippi Power & Light. All details are included in our attached Final Report.

Yours truly,

  
J. P. McGaughy, Jr.  
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ATTACHMENT  
cc: See page 2

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Mr. J. P. O'Reilly  
NRC

AECM-82/61  
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cc: Mr. N. L. Stampley  
Mr. R. B. McGehee  
Mr. T. B. Conner

Mr. Richard C. DeYoung, Director  
Office of inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. G. B. Taylor  
South Miss. Electric Power Association  
P. O. Box 1589  
Hattiesburg, MS 39401

FINAL REPORT FOR PRD-80/68

1. Name and address of the individual ... informing the commission:

J. P. McGaughy, Jr.  
Assistant Vice-President, Nuclear Production  
P.O. Box 1640  
Jackson, Mississippi 39205

Notification of Part 21 applicability made to Mr. J. P. O'Reilly, NRC, Region II by letter AECM-82/61, February 15, '982. This deficiency was also reported under 10CFR21 by General Electric to the NRC in their letter dated December 10, 1981.

2. Identification of the facility ... which ... contains a deficiency:

The defective relays were located in Unit 1 at  
Grand Gulf Nuclear Station (GGNS)  
Port Gibson, Mississippi 39150  
Unit 2 will be inspected for any additional defective relays.

3. Identification of the firm ... supplying the basic component which ... contains a deficiency:

Supplied to Grand Gulf by the General Electric Company, San Jose, California.

4. Nature of the deficiency ... and the safety hazard which ... could be created by such a deficiency ....:

A. Description of the Deficiency

The Grand Gulf Nuclear Station uses Potter & Brumfield AMF type relays in the Main Steam Isolation Valve Leakage Control System Panels. While work was being performed on Panel 1H13-P655, it was noted that #16 AWG wires connected to the AMF type relays had broken loose from their terminations. A washer had been provided at these terminations to hold the wire strands without the use of a lug attached to the wire.

Of all the panels inspected at the site, only two used this type of relay. One panel did not experience the problem due to the use of a positive method of fastening the wires to the relays. The other panel did not have a secure mechanical fastening of the conductor to the termination pin on the relay.

B. Analysis of Safety Implications

Preoperational testing of the Main Steam Isolation Valve Leakage Control System should locate any disconnected wires in the panel in question. However, assuming that such testing did not locate disconnected wires or that the wires became disconnected following testing, the capability of the MSIV Leakage Control System to perform its safety function could be degraded. In the worst case, failure of the MSIV Leakage Control System, coupled with excessive valve leakage, could result in excessive flow through an isolation valve. If such a condition exists when isolation is required following a severe accident, e.g., a loss-of-coolant accident, the flow through an isolation valve could conceivably result in release of radioactive steam from the reactor system to the environment.

The condition of the loose conductors on the relays in the MSIV Leakage Control Panel would be a substantial safety hazard in the case of an unlikely scenario as described above.

5. The date on which the information of such deficiency ... was obtained.

Mississippi Power and Light received information of the deficiency on November 3, 1980. We reported the deficiency to Mr. J. Rausch of your office as a Potentially Reportable Deficiency on November 4, 1980. Since that date MP&L has filed five (5) Interim Reports to inform the Commission of the progress and status of the evaluation of this deficiency. An evaluation for Part 21 has been completed.

6. In the case of the basic component ... the number and location of all such components.

The defective relays were installed in Panel 1H13-P655 in GGNS Unit 1 Main Steam Isolation Valve Leakage Control System. Investigations will be performed to determine if there are any additional defective relays in Unit 2.

We do not have knowledge of the location of defective equipment located other than at GGNS.

7. The corrective action which has been taken ... the name of the individual ... responsible for the action; and the length of time that has been ... taken to complete the action.

A. Corrective Actions Taken

Ring lugs were used to securely fasten the wires to the relays. Approved parts, tools, and procedures were employed to correct the deviation.

B. Responsible Individual

G. B. Rogers, Jr.  
Site Manager  
Mississippi Power and Light Company

C. Length of Time to Complete Actions

Mississippi Power & Light received notification of the deficiency on November 3, 1980. GE issued Field Disposition Deviation Request (FDDR) # JBI-1147 to correct panel H13-P655 in Unit 1. All work on this panel has been completed.

FDI-WAUA was issued September 25, 1981, for inspection and any necessary additional corrective actions on Unit 1.

FDI-WBPD was issued September 25, 1981, for inspection and any necessary corrective actions on Unit 2.

All corrective actions will be completed prior to fuel load for the respective units.

8. Any advice related to the deficiency ... that has been, is being, or will be given to purchasers or licensees:

As the deficiency did not originate with MP&L, we have no advice to offer.