



# MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.  
ASSISTANT VICE PRESIDENT

May 7, 1982

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

Unit 1

Docket No. 50-416

File C260/15525/15526

PRD-82/19, Interim Report # 1,

ECIC Turbine Relay

AECM-82/203

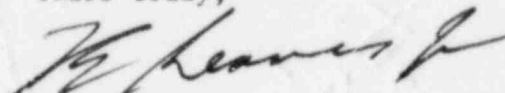
On April 7, 1982, Mississippi Power & Light Company notified Mr. R. Butcher, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns a design change in which a relay, requiring 125V DC to operate, was installed into a circuit utilizing 24V DC in the Reactor Core Isolation Cooling (RCIC) System (E51).

MP&L has evaluated this deficiency and determined that it is a substantial safety hazard and is reportable under the provisions of both 10CFR50.55(e) and 10CFR21 for Unit 1. Reportability under the provisions of 10CFR21 was reported by telephone to Mr. R. Butcher on April 20, 1982. It is indeterminate at this time as to whether this deficiency is applicable to Unit 2.

We are installing and testing the proper 24V DC time delay relays (TDRs) at this time and are working with General Electric to determine the cause, extent, and measures to prevent recurrence.

Our Interim Report is included as Attachment A. A Final Report is expected to be submitted by May 21, 1982.

Yours truly,

  
J. P. McGaughy, Jr.

RDC:dr  
ATTACHMENT

cc: See page 2

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Member Middle South Utilities System

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S-1/1

Mr. J. P. O'Reilly  
NRC

AECM-82/203  
Page 2

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

INTERIM REPORT # 1 TO PRD-82/19

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 was made to Mr. J. P. O'Reilly, NRC, Region II by letter AECM-82/203, May 7, 1982.

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

Grand Gulf Nuclear Station (GGNS) Unit 1  
Port Gibson, Mississippi 39150

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

The design change, which caused a relay requiring 125V DC to operate to be installed in a circuit utilizing 24V DC, was made 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 deficiency concerns a design change by General Electric in which a relay requiring 125V DC to operate was installed into a circuit utilizing 24V DC in the Reactor Core Isolation Cooling (RCIC) System (E51).

The intent of this change was to replace the two existing 24V DC non-time delay relays (E51-K64, E51-K84) with 24V DC time delay relays (TDR). The three second time delay relays would prevent spurious closings of the containment inboard and outboard isolation valves in the RCIC steam supply line due to false RCIC steam line break signals which typically occur during RCIC system start-ups. The time delay relays would still provide adequate protection from actual RCIC steam supply line breaks.

B. Analysis of Safety Implications

The replacement of the 24V DC with 125V DC relays would have prevented the automatic closing of the RCIC steam supply line containment inboard and outboard isolation valves on a steam line break. Therefore, had the condition remained undetected this deficiency could have affected adversely the safety of operation of the nuclear power plant.

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

Mississippi Power and Light received information of the deficiency on April 7, 1982. We reported the deficiency to Mr. R. Butcher, of your office, as a Potentially Reportable Deficiency on that date and to Mr. R. Butcher by telephone as reportable under 10CFR21 on April 20, 1982. The MP&L "Responsible Officer," Mr. J. P. McGaughy, Jr., will be notified when he returns to his office.

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

The affected relays at GGNS are E51-K64 and E51-K84 in the Reactor Core Isolation Cooling System.

We do not have knowledge of the location of deficient design changes 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

The cause, extent, and measures to prevent recurrence cannot be formulated until such time that the reason for the wrong type relay being specified in the design change has been fully investigated. General Electric has been requested to investigate these items.

The 125V DC relays have been removed and replaced with the original type relays (24V DC-nontime delay). The proper 24V DC time delay relays (TDRs) have arrived at the site and are in the process of being installed and tested.

B. Responsible Individual

C. K. McCoy  
Plant Manager  
Mississippi Power and Light Company

He is responsible for all corrective actions on Unit 1.

C. Length of Time to Complete Actions

Mississippi Power and Light received notification of the deficiency on April 7, 1982. At this time we are installing and testing the proper 24V DC TDRs and our responsible engineering organization is working with General Electric to formulate the cause, extent, and measures to prevent recurrence.

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.