



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

82 JUL 13

July 9, 1982

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
License No. NPF-13
File 0260/15525/15526
PRD-82/26, 10CFR21 Final
Report; and 10CFR50.55(e)
Interim Report,
Reactor Water Cleanup (RWCU) /c
System (G33)
AECM-82/315

Reference: AECM-82/249, 6/4/82

On May 7, 1982, Mississippi Power & Light Company notified Mr. F. Cantrell, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns the failure of the Reactor Water Cleanup (RWCU) System (G33) to automatically isolate on a signal from the "B" logic train of the Standby Liquid Control (SLC) System.

This deficiency has been determined reportable under both the provisions of 10CFR21 for Unit 1 and under 10CFR50.55(e) for Unit 2. Attached is our Final Report for Unit 1 and Interim Report for Unit 2.

Yours truly,

J. P. McGaughy, Jr.

for

RDC:dl
ATTACHMENT

cc: See page 2

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Mr. J. P. O'Reilly
NRC

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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

INTERIM REPORT #2 FOR PRD-82/26

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-82/249, June 4, 1982.

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

Grand Gulf Nuclear Station (GGNS) Units 1 and 2
Port Gibson, Mississippi 39150

NOTE: 10CFR21 is not applicable for Unit 2 as the Reactor Water
Cleanup System has not been turned over to MP&L.

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

The design was supplied to Grand Gulf by the Bechtel Power Corporation.

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

A. Description of the Deficiency

This PRD concerns the existence of an inadequate design in the Reactor Water Cleanup (RWCU) System (G33) for Unit 1. The initial design of the system included the required ability to automatically isolate the system on either the "A" or "B" train logic signals of the Standby Liquid Control (SLC) initiation signal. This automatic isolation would prevent removal of the liquid poison from reactor coolant, by the RWCU system, when the poison is required for shutdown of the reactor.

In order to improve the reliability of the RWCU pump seals, a design change was performed by the Bechtel Power Corporation. This design change provides an alternate flowpath, which routes the reactor water through the RWCU heat exchangers prior to entering the pumps (Post Pump Mode). The original design did not provide the option of cooling the water prior to entering the pump (Prepump Mode).

This change in design did not provide for a RWCU isolation from the "B" SLC logic signal when the RWCU system was in the Post-Pump Mode.

B. Analysis of Safety Implications

This deficiency would allow the RWCU system to remove the liquid poison from the reactor when it was required for reactor shutdown.

This deficiency also applies to the Unit 2 design.

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

Mississippi Power and Light received information of the deficiency on May 7, 1982. We reported the deficiency to Mr. F. Cantrell, of your office, as a Potentially Reportable Deficiency on that date and to Mr. R. Butcher, of your office, by telephone as reportable under 10CFR21 on June 1, 1982. Since that date MP&L has filed one (1) interim report to inform the Commission of the progress and status of this deficiency. An evaluation for Part 21 has been completed and the MP&L "Responsible Officer," Mr. J. P. McGaughy, Jr. has been notified.

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

We do not have knowledge of the location of this design deficiency 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 of the deficiency has been determined to be a failure of Bechtel to ensure changes made by the NSSS vendor to NSSS systems do not ultimately adversely affect non-NSSS systems to which the NSSS systems have been interfaced.

A design change has been implemented for Unit 1 which will cause a RWCU isolation, when in the Post-Pump Mode, on a "B" SLC logic signal. The completion of this design change will provide RWCU isolation in either the Pre-Pump or Post-Pump from either "A" or "B" SLC logic train. General Electric is tracking this deficiency for disposition in Unit 2 under FDI-WBVJ.

Methods of ensuring the proper design interface between design organizations will be pursued by MP&L to prevent recurrence of similar deficiencies in Unit 2. We would expect to complete our determination and submit a supplemental report by December 15, 1982.

B. Responsible Individual

C. K. McCoy
Nuclear Plant Manager
Mississippi Power & Light Co.
Port Gibson, Mississippi
Responsible for Unit 1

T. H. Cloninger
Unit 2 Project Manager
Mississippi Power & Light Co.
Port Gibson, Mississippi
Responsible for Unit 2

C. Length of Time to Complete Actions

Mississippi Power & Light Company received information of the deficiency on May 7, 1982. We expect to complete Unit 1 corrective actions prior to 5% power.

MP&L is pursuing methods of ensuring the proper design interfaces between design organizations to prevent recurrence of similar deficiencies in Unit 2.

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.