



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

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JAMES P. McGAUGHY, JR.
VICE PRESIDENT

April 6, 1984

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900
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 No. 50-416/417
License No. NPF-13
File 0260/15525/15526/16694.4
PRD-84/04, Final Report for
Unit 1, Interim Report No. 1
for Unit 2, Failure of ASCOA
Deluge Valves
AECM-84/0212

On March 19, 1984, Mississippi Power & Light Company notified Mr. P. Fredrickson, of your office, of a Reportable Deficiency at the Grand Gulf Nuclear Station (GGNS). The deficiency concerns the failure of two Automatic Sprinkler Corporation of America (ASCOA) deluge valves to open upon receipt of an actuation signal.

Although the fire protection system deluge valves were procured and installed as non-safety related equipment, the fire protection system for the diesel generator building is included in the MP&L Operational Quality Assurance Program. Due to the possible effect on safety related equipment in the diesel generator rooms, MP&L has concluded that the failure of the diesel generator room deluge valves is reportable under the provisions of 10CFR21 for Unit 1.

Determination of reportability for this deficiency for Unit 2 is still under way at this time. We expect to submit a Final Report on Unit 2 by May 31, 1984.

This report was originally due on March 23, 1984, but a two week extension until April 6, 1984, was granted on that day by Mr. R. Carroll.

Yours truly,

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PDR ADOCK 05000416
S PDR

J. P. McGaughy, Jr.
For J. P. McGaughy, Jr.

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ATTACHMENT

cc: See page 2

Member Middle South Utilities System

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Mr. J. P. O'Reilly
NRC

AECM-84/0212

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cc: Mr. J. B. Richard
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 NO. 1 FOR PRD-84/04

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

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

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

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

Determination of reportability for Unit 2 is continuing at this time.

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

The 6 inch Model C deluge valves were manufactured by Automatic Sprinkler Corporation of America (ASCOA) of Cleveland, Ohio, and supplied to Grand Gulf by Bechtel Power Corporation, Gaithersburg, Maryland.

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

A. Description of the Deficiency

The deficiency involves a condition on the Unit 1, Division I and II diesel generator rooms automatic pre-action sprinkler systems. The normally pressurized 6 inch Model C deluge valves failed to operate upon receipt of an actuation signal. Investigation of the failures and testing was performed by Middle South Services (MSS) and ASCOA to determine the cause of the failures. To simulate the GGNS firewater system operating pressure, the testing by ASCOA and MSS was performed with approximately 140 psig on the deluge valves. From the test results, the failures were attributed to the rough surface finish of the mating surfaces between the clapper nose and latch.

B. Analysis of Safety Implications

GGNS Unit 1 has eleven normally pressurized 6 inch Model C ASCOA deluge valves. Eight of the eleven are used for deluge systems on the main and balance of plant (BOP) transformers. The other three valves are used in the automatic pre-action sprinkler systems in the diesel generator rooms. If a fire occurred in the area of the fuel oil day tank, the failure of the deluge valve to open could result in the fire spreading to the diesel generator and prevent the diesel generator from performing its design function in the event of a loss of offsite power.

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

Mississippi Power and Light received information of the deficiency on September 4, 1983. This deficiency was reported to the NRC by MP&L as a licensee event in LER 50-416/83-126 on September 16, 1983. An evaluation for reportability under 10CFR21 for Unit 1 was completed and the deficiency reported to Mr. P. Fredrickson, of your office, as a reportable deficiency on March 19, 1984. 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.

There are eleven (11) normally pressurized 6 inch ASCOA Model C deluge valves on Unit 1 at Grand Gulf. We do not have knowledge of the location of other defective equipment.

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

1. The clapper and latch mating surface were smoothed with sandpaper and crocus cloth. This action, which was recommended by the manufacturer, has been completed for the eleven 6 inch Model C deluge valves on Unit 1.
2. The ASCOA technical information bulletins were revised by ASCOA to address the condition of the mating surfaces and to ensure that functional tests are performed with pressure on the clapper.
3. The reportability of this deficiency for Unit 2 has not been determined at this time. However, our Architect/Engineer has issued QAR F-451 to track the concern.

B. Responsible Individual

Unit 1
J. E. Cross
Plant Manager
Mississippi Power & Light Co.

C. Length of Time to Complete Actions

1. All corrective actions for the eleven (11) Unit 1, 6 inch Model C deluge valves are complete.

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.