



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

April 15, 1983

JAMES P. McGAUGHY JR.
VICE PRESIDENT

Office of Inspection & Enforcement
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:

83 APR 20 9:47

USNRC REGIONAL
ADMINISTRATOR
ATLANTA, GEORGIA

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket No. 50-416/417
License No. NPF-13
File 0260/15525/15526
PRD-83/08, Interim Report,
RHR Jockey Pumps
AECM-83/0243

On April 15, 1983, Mississippi Power & Light Company notified Ms. L. Watson, of your office, of a Reportable Deficiency at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns the inability to maintain a pressurized water supply to the RHR Jockey Pumps and discharge piping.

MP&L has evaluated this deficiency and determined that it is reportable under the provisions of 10CFR21 for Unit 1. The investigation is continuing to determine applicability to Unit 2.

Details are provided in our attached Interim Report. MP&L expects to submit a Final Report by June 13, 1983.

Yours truly,

J. P. McGaughy, Jr.

ACP:dr
ATTACHMENT

cc: See page 2

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Mr. J. I. O'Reilly
NRC

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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 FOR PRD-83/08

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

J. P. McGaughy, Jr.
Vice-President, Nuclear Production
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

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

Supplied to Grand Gulf by the Bechtel Power Corporation in 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 concerns the failure of the A/E to provide a pressurized water supply that would ensure the RHR pumps, A and B, and discharge piping are filled continuously with water as required by the G. E. design specification.

The purpose of the pressurized water supply is to avoid delays in filling the RHR pump discharge piping and to avoid water hammer effects during RHR pump starts.

The RHR jockey pumps subsystems were designed, by the A/E to provide the necessary pressurized water supply to the RHR pump and discharge piping. However, the jockey pump logic design, tripped the jockey pump when it was required for RHR system pressurization.

The jockey pump logic was designed so that either the jockey pump min-flow valve or the Feedwater Leakage Control (FWLC) system supply valve must be open to allow jockey pump operation. With both the min-flow valve and the FWLC supply valve closed the jockey pump would trip, removing the pressurized source of water from the RHR pumps and discharge piping.

B. Analysis of Safety Implications

During normal operations the jockey pumps supply to the FWLC system is closed and the jockey pumps min-flow valves are open. This allows the jockey pump to supply pressurized water to the RHR pumps and discharge piping. A containment isolation signal (high drywell pressure of RPV Level 2) will close the jockey pump min-flow valve, stopping the jockey pumps.

During a LOCA, as RPV water level is decreasing, the jockey pumps will trip at a RPV Level 2. However, the RHR pumps would not automatically start until RPV water level reached Level 1. During this period of time the RHR discharge piping could become depressurized and partially drained. This would create a water hammer, during the RHR pump start, which could result in damage to the RHR piping, valves, and piping supports.

MP&L has determined that this deficiency could create a substantial safety hazard. It has not been determined at this time that a similar deficiency exists in Unit 2.

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

Mississippi Power and Light received information of the deficiency on March 15, 1983. We reported the deficiency to Ms. L. Watson, of your office, as being reportable under the provisions of 10CFR21 for Unit 1 on April 15, 1983. An evaluation for Part 21 has been completed and 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 design deficiency of the RHR jockey pump logic is located at Grand Gulf Nuclear Station, Unit 1. Investigation is presently underway to determine applicability to Unit 2. This is a plant specific design and we have no knowledge of such deficiencies 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

MP&L is in the process of evaluating a Design Change Package (DCP-83/5006) that will correct the subject deficiency. The implementation of the DCP will prevent the automatic tripping of the jockey pump due to the valve closures.

It is expected that DCP-83/5006 will be completed prior to nuclear heatup.

MP&L is contacting the A/E to determine the cause of the deficiency, determine applicability to Unit 2 and generate a tracking document for Unit 2 should the deficiency exist.

B. Responsible Individual

C. K. McCoy
Plant Manager
Mississippi Power & Light Co.
Responsible for Unit 1

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

C. Length of Time to Complete Actions

A projected completion date for the corrective actions is not available at this time. However, MP&L is planning to implement the design change prior to nuclear heatup. MP&L expects to submit a Final Report by June 13, 1983.

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.