



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

NUCLEAR PRODUCTION DEPARTMENT

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 0260/15525/15526  
PRD-82/21, Interim Report #1,  
SSW "A" Loop System Flow  
AECM-82/214

On April 15, 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 a low flow condition through the "A" Standby Service Water (SSW) Pump.

MP&L has evaluated this deficiency and determined that it is reportable under the provisions of both 10CFR50.55(e) and 10CFR21 for Unit 1. Notification as to the applicability of 10CFR21 was made by telephone to Mr. F. Cantrell, NRC Region II, on May 10, 1982. It is indeterminate at this time as to whether this deficiency is applicable to Unit 2.

To assure no impact on fuel load, a schedule of corrective actions has been included in Section 7.C.

Our Interim Report is included as Attachment A. This report was due on May 15, 1982, but an extension was granted by Mr. A. Gibson on May 14, 1982. A Final Report is expected to be submitted by June 14, 1982.

Yours truly,

RDC:dr  
ATTACHMENT

cc: See page 2

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Member Middle South Utilities System

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Mr. J. P. O'Reilly  
NRC

AECM-82/214  
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cc: 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 NO. 1 FOR PRD 82/21

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-82/214, May 14, 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 deficient design which did not provide for an automatic minimum flow path during system low flow conditions was provided 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 "A" loop of the Standby Service Water (SSW) System is designed to automatically provide cooling water to the RCIC Room Cooler on an RCIC initiation signal. As soon as the steam supply valve to the RCIC system leaves the fully closed position, an initiation signal is provided to start the SSW loop "A" pump, open the pump discharge valve and the cooling tower return valve. This will provide a flow path for the RCIC Room Cooler.

The flow in the SSW system during this mode of operation is significantly less than that required to keep the SSW pump cool during operation. Approximately 95 gpm is used in the system during this mode of operation and the SSW pump requires approximately 2000 gpm to prevent heat buildup in the pump.

The Bechtel design did not allow for a minimum flow path in the SSW loop "A" when the SSW System is automatically started due to an RCIC initiation signal. All other automatic starts of both the SSW loop "A" and SSW loop "B", initiated by an automatic start of another system, provide adequate flow in the SSW loops to prevent pump damage.

B. Analysis of Safety Implications

The loss of the SSW loop "A" pump could prevent the removal of heat from plant auxiliaries, such as the Standby Diesel Generator II and the LPCS Room Cooler, which require cooling during an emergency shutdown of the plant. It could also prevent the use of the SSW system as the ultimate heat sink used for removal of the decay heat generated by the reactor core.

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

Mississippi Power and Light received information of the deficiency on April 15, 1982. We reported the deficiency to Mr. F. Cantrell, of your office, as a Potentially Reportable Deficiency on that date and to Mr. F. Cantrell, by telephone as reportable under 10CFR21 on May 10, 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.

We do not have knowledge of the location of other deficient designs of this type 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

Design changes are presently being investigated which would automatically provide minimum pump flow when SSW loop "A" is automatically started by an RCIC initiation signal.

Until the necessary design changes have been implemented in the SSW system, the plant operating procedures will be revised to ensure that when the SSW loop "A" is automatically started due to an automatic RCIC initiation signal, enough flow will be established through other components to prevent SSW pump damage.

Present plant procedures provide for ensuring adequate SSW flow if a system which requires SSW cooling is placed into service manually.

B. Responsible Individual

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

He is responsible for corrective actions on Unit 1.

C. Length of Time to Complete Actions

Mississippi Power and Light received information of the deficiency on April 15, 1982. At this time, we expect to submit a Final Report on June 14, 1982.

Procedures will be changed before fuel loading. A design change will be completed prior to power ascension to assure minimum flow through the SSW pump accures automatically on initiation of RCIC.

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.