



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

September 9, 1981

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, Director

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416/417
File 0260/15525/15526
PRD-81/15, Interim Report No. 1
Corrosion to SSW Pump
AECM-81/349

On February 25, 1981, Mississippi Power & Light Company notified Mr. P. A. Taylor, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns minor corrosion detected on the internals of the Unit 2 Standby Service Water (SSW) System "B" Pump.

During our investigation of this deficiency, it was discovered that other damage had also occurred to the Unit 2 SSW "B" Pump as well as to the Unit 1 SSW "B" Pump and the HPCS Service Water Pump. We are continuing our evaluation to determine the extent of the deficiency and effects on safety. We expect to submit a final report by November 1, 1981.

Attached is our interim report.

Yours truly,

J. P. McGaughy, Jr.

For

KDS:dr
ATTACHMENT

cc: See page 2

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Member Middle South Utilities System

Mr. J. P. O'Reilly
NRC

AECM-81/349
Page 2

cc: Mr. N. L. Stampley
Mr. R. B. McGehee
Mr. T. B. Conner

Mr. Victor Stello, 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

cc: Dr. D. C. Gibbs
Mr. J. N. Ward
Mr. J. P. McGaughy, Jr.
Mr. J. D. Heaton
Mr. R. Trickovic
Mr. J. W. Yelverton
Mr. L. F. Dale
Mr. C. K. McCoy
Mr. T. H. Cloninger
Mr. R. A. Ambrosino
Mr. A. J. Iosue
Mr. G. B. Rogers
Mr. S. H. Hobbs
Mr. L. E. Ruhland
Mr. D. L. Hunt
Mr. A. G. Wagner
Mr. P. A. Taylor
PRD File
File

Mr. J. Leatherman
Manager of BWR-6 Licensing
General Electric Company
175 Curtner Avenue
San Jose, Ca. 95125

Mr. D. M. Houston
U. S. Nuclear Regulatory Commission
Division of Licensing
Washington, D. C. 20555

Mr. J. Matore
U. S. Nuclear Regulatory Commission
Division of Licensing
Washington, D. C. 20555

INTERIM REPORT NO. 1 TO PRD-81/15

I. Description of the Deficiency

Minor acid etching of the Unit 2 Standby Service Water (SSW) "B" Pump intermediate bowl was detected during reassembly of the pump following repairs to various pump components. Repairs were being made because of previous acid damage to the pump.

The deficiency is known to affect the Unit 2 SSW "B" Pump. Investigations are underway to determine its applicability to the Unit 1 SSW "B" Pump and the High Pressure Core Spray Service Water Pump.

We are continuing our evaluation of the safety implications of this deficiency to determine if the deficiency could adversely affect the safety of operations of the nuclear power plant.

II. Approach to Resolution of the Problem

The cause of the pump corrosion was the addition of more sulphuric acid than was required to the SSW "B" basin. The acid was added in an attempt to reduce the alkalinity.

At the time of the addition of the acid, the SSW basin level transmitters were not operable and construction of the acid addition system for the SSW basin was not complete. This resulted in large quantities of acid being dumped directly into the basin, resulting in poor mixing of the acid and water, causing a high concentration of acid in various areas of the basin. Only SSW basin "B" was affected.

The high acidity of the basin water was known to have caused corrosion damage to the Unit 2 SSW "B" Pump. This pump was repaired by the vendor (Goulds Pumps, Inc.). The extent of the damage to the other pumps (if any) is not known at this time. To preclude recurrence of the condition, the SSW basin level transmitters have been installed and are operable, providing a positive and accurate method for determining the quantity of water in the basins. The acid addition system has been completed and is operable. This will provide a controlled method of adding acid and ensuring proper mixing of acid and water to ensure a uniform mixture throughout the basin.

III. Status of Proposed Resolution

The extent of the deficiency has not been fully determined. Along with our Constructor, we are investigating other items, i.e. piping and valves, which could possibly have been affected by the reduced pH water.

IV. Reason Why A Final Report Will Be Delayed

The investigation into the extent of the deficiency and known safety implications has not been completed.

V. Date When A Final Report Will Be Submitted

A final report will be submitted by November 1, 1981.