



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640 JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

June 1, 1982

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
File 0260/15525/15526
PRD-82/11, Final Report,
Henry Pratt Valves without
Proper Bracing
AECM-82/224

Reference: AECM-82/144, 4/9/82
AECM-82/192, 4/29/82

On March 10, 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 Henry Pratt butterfly valves without proper angle bracing in the Standby Gas Treatment System.

As stated in AECM-82/144 and AECM-82/192, we have evaluated this deficiency and determined that it is reportable under the provisions of 10CFR50.55(e) for Units 1 and 2 and 10CFR21 for Unit 1 for MP&L. Bechtel Power Corporation has also determined that the deficiency is reportable under 10CFR21 and their written report was included in AECM-82/144. This was reported by telephone to Mr. R. Butcher on April 8, 1982.

We have determined that this deficiency is not applicable to the NSSS scope of supply, but is applicable to the BOP scope of supply. Our Final Report is included as Attachment A.

Yours truly,

J. P. McGaughy, Jr.

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ATTACHMENT

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Member Middle South Utilities System

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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

FINAL REPORT FOR PRD-82/11

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-82/144, on April 9, 1982.

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

The defective valves are located in both Unit 1 and Unit 2
at the Grand Gulf Nuclear Station
Port Gibson, Mississippi 39150

However, only those in Unit 1 have been turned over and accepted by MP&L and are reportable under 10CFR21.

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

Supplied to Grand Gulf by Bechtel Power Corporation, Gaithersburg, Maryland. Bechtel obtained the valves from Henry Pratt Company, Aurora, Illinois.

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

A. Description of the Deficiency

Three (3) Henry Pratt six (6) inch motor operated butterfly valves do not meet the seismic qualifications required in our Architect/Engineer's specifications for valves in the Operability Assurance Program for ASME Section III, Class 1, 2, and 3 valves. This requires that the valves have a resonant frequency greater than 33 Hz. In order to meet these specifications, it is necessary that the valves are installed with 1" x 1" x 1/4" angle braces. Only one (1) of four (4) valves has the angle braces installed.

This deficiency was identified during a review of seismic qualification reports.

It occurred because the subject valves were shipped prior to completion of the operability testing. During operability testing it was discovered that the test assembly without bracing had a resonant frequency of only 26 Hz. The added bracing was necessary to raise the resonant frequency of the valves to 33 Hz.

Since the testing was performed after the Unit 1 valves had been shipped to the jobsite, they were installed without the additional bracing. One of the Unit 2 valves was used for the qualification testing, so the necessary bracing had been added to this valve. The other Unit 2 valve did not have the required bracing.

B. Analysis of Safety Implications

The qualification test valve assembly was statically tested with the angle braces installed. Without the required bracing, it cannot be assured that the valves would operate properly during a postulated design basis seismic event. If there was a simultaneous main steam line break outside containment and a malfunction of these valves, the Standby Gas Treatment System would be unable to remove the potentially radioactive air in the steam tunnel outside containment. Therefore, had the condition remained undetected and uncorrected, the deficiency could have affected adversely the safety of operation of the power plant.

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

Mississippi Power and Light received information of the deficiency on March 10, 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 as reportable under 10CFR21 on April 8, 1982. The MP&L "Responsible Officer," Mr. J. P. McGaughy, Jr., was notified.

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

The deficiency as reportable under 10CFR21 is known to affect valves Q1-T48-F005 and Q1-T48-F006 in Unit 1. Valve Q2-T48-F006 is reportable under 10CFR50.55(e) in Unit 2. These are both in the BOP scope of supply.

We have determined that this deficiency is not applicable to the NSSS scope of supply.

We do not have knowledge of the location of defective equipment located 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

Modifications to raise the resonant frequency of the valves to 33 Hz by adding the proper angle braces to the three (3) valves have been completed.

All work has been inspected and certified by a Henry Pratt representative.

This deficiency is limited to the valves listed above. Our Architect/Engineer has reviewed all qualification test reports received from the Henry Pratt Company. This review has verified that modifications were not made to any other test assemblies, and that the cited deficiency is an isolated event. General Electric has reviewed their use of Henry Pratt valves at GGNS and has stated that GE has no Henry Pratt 6" butterfly valves in the GGNS NSSS and that they were unaware of Pratt valves of the larger variety being used in the NSSS.

To prevent recurrence of this deficiency, Henry Pratt has changed the angle bonnet configuration to a seismically qualified "tee-type" bonnet configuration and any new bonnets furnished would be the "tee-type" design, unless otherwise requested.

Additionally, bonnet detail drawing and bill of material for Pratt Order D-002-9 will be revised by Henry Pratt to reflect current bonnet configuration at GGNS.

B. Responsible Individual

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

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

C. Length of Time to Complete Actions

Mississippi Power and Light received notification of the deficiency on March 10, 1982. All corrective actions for Units 1 and 2 have been completed.

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.