

OFFICIAL COPY



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

June 25, 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-81/29, Status Report #1, Temp
Flex Penetration Bellows Assemblies
AECM-81/226

On May 29, 1981, Mississippi Power & Light Company notified Mr. V. Brownlee, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns incorrectly welded spokes on the bellows end sleeves of penetration assemblies manufactured by the Temp Flex Company, of Compton, California.

We have not completed our investigation and therefore, have not, determined reportability under 10CFR50.55(e). Attached is our status report.

We expect to determine reportability and submit a final report by October 7, 1981.

Yours truly,

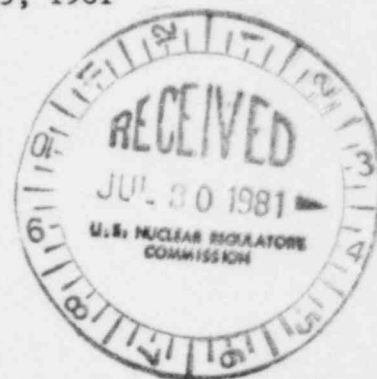
J. P. McGaughy, Jr.

ATR:dr
ATTACHMENT

cc: See page 2

8107310293 810625
PDR ADOCK 05000416
S PDR

Member Middle South Utilities System



IE27
5/11

Mr. J. P. O'Reilly
NRC

AECM-81/226
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

bcc: Dr. D. C. Gibbs
Mr. J. N. Ward
Mr. J. P. McGaughy
Mr. W. A. Braun
Mr. R. Trickovic
Mr. J. W. Yelverton
Mr. L. F. Dale
Mr. C. K. McCoy
Mr. T. H. Cloninger
Mr. R. A. Ambrosino
Mr. R. C. Fron
Mr. C. B. Rogers
Mr. M. R. Williams
Mr. L. E. Ruhland
Mr. D. L. Hunt
Mr. A. G. Wagner
Mr. P. A. Taylor
PRD File
File

STATUS REPORT #1 FOR PRD-81/29I. Description of Deficiency

Penetration bellow assemblies manufactured by Temp Flex have exhibited cracked and broken welds at the junction of "spokes" to the bellows end sleeves. Contrary to drawing requirements, "fillet welds" were used in lieu of "full penetration" welds.

Names of systems affected:

- B-21 Nuclear Boiler System
- B-12 Residual Heat Removal System
- G-33 Reactor Water Cleanup System
- E-51 Reactor Core Isolation Cooling System

The problem applies to all penetration bellow assemblies supplied to the Grand Gulf Project by Temp Flex for Unit 1 and Unit 2.

The possibility exists that, during a seismic event, the welds could fail and the protective sleeve could be displaced and damage the 2-ply corrugated section of the bellows. The bellows form part of the drywell pressure boundary. A loss of isolation integrity between the drywell and the containment could affect the safe operation of the plant.

II. Approach to Resolution of the Problem

Field inspection indicates that all the subject welds are "fillet" welds. The vendor (Temp Flex) believes that fillet welds of 3/16" are suitable for the application and can be qualified by seismic calculation. However, many of the welds are less than 3/16" either wholly or partially. The vendor has been requested to, and is in the process of preparing calculations to support the use of fillet welds and to determine minimum weld size requirements.

All penetration assemblies for both Unit 1 and Unit 2 have been delivered; therefore, only remedial action can be addressed. Corrective action by the vendor has been requested as part of the vendor problem investigation.

Remedial action will be determined upon review of the seismic calculations being prepared by Temp Flex. As a minimum, the action will involve the repair of broken welds and rework of undersized welds.

III. Status of Proposed Resolution

1. Prior to implementation of repair/rework, the vendor has been requested to prepare written calculations to verify the minimum weld requirements for the design seismic conditions.

2. The vendor has been requested to evaluate the use of fillet welds in lieu of full penetration welds.
3. The Architect/Engineer will review the results of the vendor's investigation to determine the scope and impact of remedial actions.

IV. Reason Why A Final Report Will Be Delayed

The investigation by our Architect/Engineer has not been completed.

V. Date When A Final Report Will Be Submitted

We expect to submit a final report by October 7, 1981.