



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

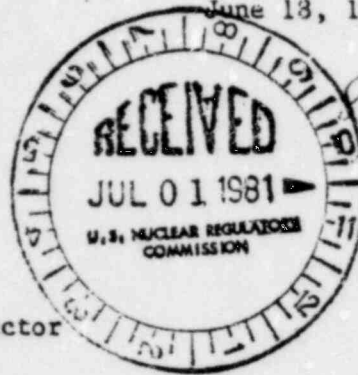
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

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-80/19, Interim Report #4,
Rosemount Pressure Transmitters
AECM-81/204

50-416
50-417

- References: 1) AECM-81/73, 2/18/81
2) AECM-80/269, 10/30/80
3) AECM-80/175, 7/31/80
4) AECM-80/98, 5/9/80

On April 11, 1980, 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 ambiguous output readings noted in Rosemount Model 1151 pressure transmitters with "A" boards. This deficiency was later expanded to include "B", "C" and "D" boards.

This condition was reported to the NRC under the provisions of 10CFR21 by Bechtel Power Corporation in their letters dated April 24, 1980 and July 22, 1980, and by General Electric in their letter dated June 2, 1980.

We have determined that this deficiency is reportable by MP&L under both 10CFR50.55(e) and 10CFR21 as stated in our letter AECM-80/175 of July 31, 1980.

We have evaluated and determined corrective actions for all defective transmitters in the non-NSSS scope of supply. We are continuing our investigation of the application of these transmitters in the NSSS system.

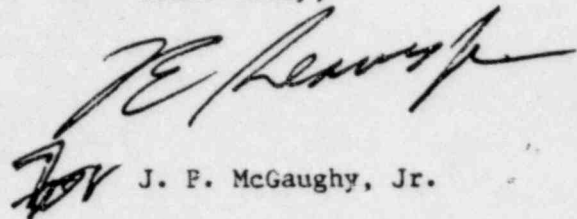
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Member Middle South Utilities System

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5/11

We expect to complete our final report on or before September 30, 1981.
Attached is our Interim Report No. 4.

Yours truly,



J. P. McGaughy, Jr.

KDS:dr
ATTACHMENT

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

Mr. Victor Stallo, Director
Office of Inspection & Enforcement
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Mr. J. N. Ward
Mr. J. P. McGaughy
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Mr. R. A. Ambrosino
Mr. R. C. Fron
Mr. G. 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

INTERIM REPORT NO. 4 TO PRD-80/19

I. Description of Deficiency

Rosemount Model 1151A transmitters are specified to have a linear output of 4 to 20 milliamps throughout the calibrated range. Our Constructor and NSSS supplier had been notified by Rosemount, Inc. that it had been observed in a limited number of transmitters that an output within the specified range can occur with excessive over or reverse pressures. These transmitters are utilized in numerous systems throughout the plant, both within and without the NSSS scope of supply. The deficiency is applicable to both Unit 1 and Unit 2.

This deficiency has been determined to be reportable under 10CFR50.55(e) and also under the provisions of 10CFR21 for Mississippi Power and Light. Our Constructor and NSSS supplier have also reported this deficiency under 10CFR21.

II. Approach to Resolution of the Problem

The cause of the condition was a design deficiency in the transmitter electronics which resulted in shorting of the center diaphragm to the fixed plate in the sensing head of the transmitter.

Under the non-NSSS scope of supply, our Constructor has determined that there are sixteen (16) transmitters in both Unit 1 and Unit 2 where the excessive over or reverse pressure conditions causing ambiguous outputs could occur. On each unit there are two (2) in the Suppression Pool Makeup (E30) (outside the containment) and fourteen (14) in the Combustible Gas Control System (E61) (inside the containment). These will all be replaced with Model 1153 transmitters which are qualified to IEEE 323-1974 and IEEE 344-1975. All non-safety-related transmitters will have the "A" type circuit boards replaced with Rosemount "E" type circuit boards, which are unaffected by this deficiency. Transmitters with this modification will be identified.

In the NSSS scope of supply all Model 1151 and 1152 pressure transmitters with "A" and "D" boards will be replaced with Model 1152T0280 transmitters with "E" boards. There are no Model 1151 transmitters within the NSSS scope of supply that use "B" boards. Our NSSS supplier has not completed their evaluation of the Model 1151 transmitters with "C" boards and has formulated no corrective actions. Since all affected pressure transmitters will be replaced by our NSSS supplier, this will serve to preclude recurrence of the deficiency.

Our Constructor has only utilized Model 1151 pressure transmitters with the "A" boards at GGNS in applications where a potential over/reverse pressure condition exists. No "B" or "D" boards were used at GGNS in the non-NSSS scope of supply. Transmitters with type "C" boards were used, but not in applications where a potential over/reverse pressure condition exists. To prevent recurrence of this problem, our Constructor has

modified his purchase specifications to include a statement that "Input values outside the calibrated range of the transmitter shall not produce outputs which can be construed as corresponding to input values within the calibrated range." For future applications of Rosemount transmitters, the over/reverse pressure potential will be determined and an appropriate transmitter shall be installed.

III. Status of Proposed Resolution

Our Constructor is presently in the process of completing the necessary work to correct the deficiency in the non-NSSS scope of supply. All corrective actions are expected to be completed by July 1, 1981.

Our NSSS supplier has not completed their formulation of corrective actions.

IV. Reason Why a Final Report Will Be Delayed

The NSSS supplier has not completed its evaluation.

V. Date When Final Report Will Be Submitted

We expect to complete our evaluation and submit our final report by September 30, 1981.