



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

November 30, 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, 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-81/43, Interim Report No. 1,
Teflon Coating on Drywell Purge
Compressor Aftercoolers
AECM-81/469

On October 29, 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 the Teflon coating on the drywell purge compressor aftercoolers.

We have determined that this deficiency, had it remained uncorrected, could have affected the safety of operations of the nuclear power plant and is reportable under the provisions of 10CFR50.55(e). It is not reportable under the provisions of 10CFR21 as explained in our attached Interim Report No. 1.

A Final Report will be submitted by January 29, 1982.

Yours truly,

J. P. McGaughy, Jr.

For

KDS: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

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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

INTERIM REPORT NO. 1 FOR PRD-81/43

I. Description of the Deficiency

The Drywell Purge Compressor Aftercoolers (Q1E61B001 A & B, Q2E61B001 A & B) shell interiors had been coated with Teflon. During nozzle modifications for new loads, this coating (Teflon) "bubbled" and "blistered" due to welding heat. Further investigation of the subject conditions determined that Teflon is not acceptable for use in the containment from a radiation standpoint.

This deficiency affects the Combustible Gas Control System (E61) in Units 1 and 2.

If the Teflon coating had not been removed from the aftercooler shell interiors, it could have chipped and/or peeled off, resulting in possible blockage of the cooling water to the coolers, thus affecting the ability of the aftercooler to maintain the air compressor discharge air temperature below the maximum allowable temperature in the drywell for long-term post LOCA conditions. Therefore, this condition is reportable under 10CFR50.55(a). The Combustible Gas Control System (E61) had been turned over to Mississippi Power & Light but the affected components had been punchlisted. So, the deficiency is not reportable under 10CFR21 for MP&L.

II. Approach to Resolution of the Problem

The deficiency was caused by the aftercooler manufacturer providing material on the interior of the aftercooler shells, which is not compatible with the environmental conditions as stated in our Constructor's Purchase Specification. The manufacturer failed to recognize the limitation of Teflon in elevated radiation environments.

At present the condition is known only to affect the four (4) drywell purge compressor aftercoolers supplied by Atlas Copco Turbonetics. All other safety-related coolers and heat exchangers located in high radiation areas are in the process of being investigated for Teflon coatings.

To correct the existing deficiency, the Teflon will be removed from the aftercoolers. Actions to preclude recurrence have not been formulated at this time.

III. Status of Proposed Resolution

Safety implications and the cause of the deficiency have been determined. We are currently working with our Constructor to determine the extent of the deficiency and actions to preclude recurrence.

IV. Reason Why A Final Report Will Be Delayed

Investigative actions to determine the extent have not been completed and actions to preclude recurrence have not been addressed.

V. Date When Final Report Will Be Submitted

We expect to submit a Final Report by January 29, 1982.