



MISSISSIPPI POWER & LIGHT COMPANY

ATLANTA REGION
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P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

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January 4, 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-81/41, Final Report, Main
Steam Door Radiation and Pressure
Requirements
AECM-82/03

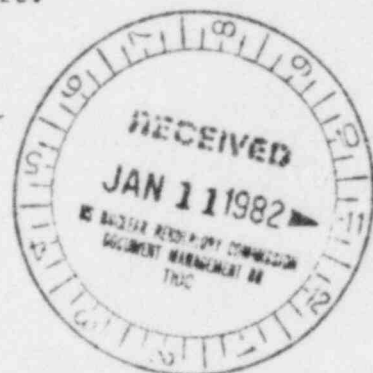
Reference: AECM-81/441, 11/9/81

On October 8, 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 inadequacy of Pressure Door No. 1A320 to provide adequate shielding between the Main Steam Tunnel and the Auxiliary Building Corridor as well as its inability to withstand compartment design pressures.

Based on the results of our investigation, we have determined that this deficiency is reportable under the provisions of 10CFR50.55(e) but not under 10CFR21. All details are provided in our attached Final Report.

Yours truly,

for J. P. McGaughy, Jr.



ACP:dr
ATTACHMENT

cc: See page 2

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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-81/41I. Description of the Deficiency

Pressure door 1A320 was determined inadequate in providing sufficient shielding between the Main Steam Tunnel, which is Zone E, and the Auxiliary Building Corridor, which is Zone B, during normal operating conditions. Also, it had been determined that the pressure retaining capability of the door was inadequate. The door was built to withstand a pressure of 4 psi, however, the design intent of door 1A320 is that it maintain a pressure of 15.39 psi. The door must maintain its integrity to prevent over-pressurization of the adjacent rooms in the Auxiliary Building.

Investigative action to determine the extent of the problem has found that door 1A216, located in the Auxiliary Building, is also structurally deficient in withstanding a pressure of 15.39 psi. Door 1A216 is not required to provide radiation shielding. Investigative actions have revealed that the deficiencies as described above also apply to the Unit 2 doors 2A216 and 2A320.

These deficiencies are contained in the Auxiliary Building and are not directly associated with any particular plant system. Since the areas have not been turned over to MP&L, 10CFR21 does not apply.

Our Architect/Engineer has determined that the deficient pressure door problem was caused by inadequate coordination of criteria changes. The insufficient radiation shielding of door 1A320 and 2A320 was determined to have been caused by an oversight to incorporate appropriate radiation shielding during the design of the door.

II. Analysis of Safety Implications

The Architect/Engineer has determined, that had the deficiencies remained uncorrected, this could have had an adverse affect on plant safety. Under normal operating conditions door 1A320 and 2A320 would not provide the required shielding, i.e., protection from radiation exposure, from the Steam Tunnel to plant equipment or personnel which may be in the Auxiliary Building. Therefore, the personnel radiation exposure could exceed those dose limits of 10CFR20. In the event of a pipe break in the Steam Tunnel, the harsh environment which could consist of pressure, temperature, and radiation could be released into the Auxiliary Building. Therefore, the safety-related equipment located in the Auxiliary Building could be exposed to this harsh environment. This harsh environment could exceed the safety-related equipment qualification envelope and the safety of operations of GGNS would not be assured. Therefore, the determination has been made that these deficiencies are reportable under the provisions of 10CFR50.55(e).

III. Corrective Actions Taken

Our Architect/Engineer has determined that the deficiencies were caused by a lack of communications and human error in describing the change in criteria from the current door design pressure of 4 psi to the compartment design pressure of 15.39 psi.

Also, our A/E has completed the redesign effort and drawing changes required to correct the cited deficiencies have been issued to construction. Doors 1A216 and 1A320 will be worked to the new drawings to correct their cited deficiency. Doors 2A216 and 2A320 will be redesigned to meet the requirements of the newly revised specification. The original Unit 2 doors will be documented as nonconforming and will be dispositioned accordingly. They are presently in storage at the Natchez warehouse.

The design for Units 1 and 2 has been completed. The investigative actions performed were all inclusive to ensure that all pressure doors for Units 1 and 2 were in compliance with design criteria. Therefore, further actions to preclude recurrence of the cited deficiencies at Grand Gulf are deemed not necessary.