MISSISSIPPI POWER & LIGHT COMPANY
Helping Build Mississippi
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

November 9, 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-81/41, Interim Report, Main Steam Door Radiation and Pressure Requirements
AECM-81/441

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.

Our investigation into this matter is continuing but has determined that this deficiency is reportable under the provisions of 10CFR50.55(e) but not under 10CFR21. The Interim Report is attached. We expect to provide our Final Report on or before January 4, 1982.

Yours truly,

For J. P. McGaughy, Jr.

ACP:ar
ATTACHMENT

cc: See page 2

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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

INTERIM REPORT FOR PRD-81/41

I. Description of the Deficiency

Pressure door 1A320 was determined inadequate in providing sufficient shielding between the Main Steam Tunnel and the Auxiliary Building 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 psig. The design intent of door 1A320 is that it maintain a pressure of 15.39 psig. 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 psig. Door 1A216 is not required to provide radiation shielding.

These deficiencies are contained in the Auxiliary Building and are not directly associated with any particular plant system. The deficiencies are applicable to both Unit 1 and Unit 2. Since the areas have not been turned over to MP&L, 10CFR21 does not apply.

The A/E has determined, that had the deficiencies remained uncorrected, this could have an adverse affect on plant safety. Under normal operating conditions door 1A320 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 10CFR Part 20. 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).

II. Approach to Resolution of the Problem

The cause for the shielding and pressure deficiency is indeterminate at this time. However, it appears to be a lack of coordination and human error in describing the change in criteria from the current door design pressure of 4 psig to the compartment design pressure of 15.4 psig.

Our A/E has initiated action to retrofit the doors to achieve the shielding and pressure retention requirements. The design effort for door 1A320 is scheduled for completion by November 13, 1981 and the design effort for door 1A216 will be determined upon MP&L's approval of the design approach.

The corrective actions which have been taken or those that will be taken to preclude recurrence have not been provided due to the fact that the cause and extent of the deficiency is still under investigation.

III. Status of Proposed Resolution

Our A/E is in the process of determining the cause of the deficiency. Upon determination, specific corrective actions and actions to preclude recurrence will be formulated. An estimation has been made that the determination of the cause will be completed by December 11, 1981. All actions will be complete prior to fuel load.

IV. Reason why a Final Report will be Delayed

The cause for the change in pressures (i.e. from 4 to 15.4) and a review of different radiation zones has not been completed.

V. Date when Final Report will be Submitted

We expect to submit our Final Report on this deficiency on or before January 4, 1982.