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May 14, 1984

JAMES P. McGAUGHY, JR.
VICE PRESIDENT

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30303

Attention: Mr. J. P. O'Reilly, Regional Administrator

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station
Unit 2
Docket No. 50-417
License No. NPF-13
File 0260/15525/15526/16694.4
PRD-84/05, Interim Report No.
2 for Unit 2, Main Feed Water
Line Moment Guide Temperature
AECM-84/2-0005

Reference: AECM-84/0209, 4/2/84

On March 29, 1984, Mississippi Power & Light Company notified Mr. R. Carroll, of your office, of a Reportable Deficiency at the Grand Gulf Nuclear Station (GGNS). The deficiency concerns the [calculated maximum temperature for the main feedwater line moment guides exceeding the original design basis limitation for the concrete within the auxiliary building G-line wall.

MP&L has determined that this deficiency is reportable under the provisions of 10CFR21 for Unit 1 and 10CFR50.55(e) for Unit 2. The Final Unit 1 10CFR21 Report was previously submitted per the referenced letter. All current details for Unit 2 are contained in our attached Interim Report. We expect to submit a Final Report for Unit 2 prior to Fuel Load.

Yours truly,

for J. P. McGaughey, Jr.

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ATTACHMENT

cc: See page 2

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Mr. J. P. O'Reilly
NRC

AECM-84/2-0005
Page 2

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INTERIM REPORT NO. 2 FOR PRD-84/05, UNIT 2

I. Description of the Deficiency

During low power operation of Grand Gulf Unit 1, the main steam line moment guides, located within the auxiliary building G-line wall, experienced an overheating problem. In reviewing the applicable calculations, it was discovered that heat losses from the uninsulated portions of the moment guides to the concrete wall had been neglected in the original analysis for the main steam and main feedwater lines.

The temperature of the concrete wall near the main feedwater line moment guides could have exceeded 300°F, the design limiting temperature of the G-line wall. Therefore, the potential exists for degradation of concrete properties and strength. However, for the main steam line moment guides, the reanalysis indicated that the concrete temperature limits would not be exceeded. The deficiency is applicable to both Units 1 and 2; however, the deficiency has previously been reported under 10CFR21 for Unit 1. This report applies only to Unit 2. Part 21 is not applicable for Unit 2 since the system has not been turned over to MP&L.

Degradation of the auxiliary building G-line wall, enclosing the main steam and main feedwater line moment guides, from temperatures in excess of the 300°F limiting temperature could result in failure of the wall to perform its intended safety function as follows:

1. The wall forms a part of the secondary containment which in conjunction with the standby gas treatment system serves to limit doses within the guidelines of 10 CFR 100 and 10 CFR 50, during the design basis accident.
2. The wall contains the main steam and feedwater line moment guides which are necessary to protect the outboard Main Steam Isolation Valves (MSIV's) from excessive loads due to a postulated pipe failure in the turbine building. The basis for these restraints is the NRC's Branch Technical Position MEB 3-1, Paragraph 3.1.b(1)(c).

Therefore, had the cited condition remained uncorrected, the deficiency could have affected adversely the safety of operations of the nuclear power plant at any time throughout the expected lifetime of the plant.

II. Approach to Resolution of Problem

The cause of the deficiency was that the heat losses from the uninsulated portions of the moment guide to the concrete wall had been neglected in the original analysis for the main steam and main feedwater lines.

For Unit 2 a design review will be initiated based on the Design Change Package (DCP) issued to correct the problem for Unit 1.

The changes described in the DCP will be assessed by our Architect/Engineer and additional alternatives will be reviewed during the engineering study of the problem for Unit 2.

III. Status of Proposed Resolution

At this time the analysis of the safety implications has been completed and cause and extent of the deficiency have been determined. However, remedial actions and actions to prevent recurrence have not been formulated at this time. All actions will be complete prior to Unit 2 fuel load. Our Architect/Engineer has issued MCAR 152 to track this concern for Unit 2.

IV. Reason Why Final Report is Delayed

The project schedule does not require the design of the moment guides to be completed in the near future; therefore, the design review and problem resolution will be performed at a later date commensurate with the schedule requirements.

V. Date when Final Report will be Submitted

A final report will be submitted prior to Unit 2 fuel load.