Dr. Ernst Volgenau

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

PRODUCTION DEPARTMENT

April 15, 1977

Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Region II - Suite 818
230 Peachtree Street, N. W.
Atlanta, Georgia 30303

Attn: Mr. Norman C. Moseley, Director

Dear Mr. Moseley:

SUBJECT: Grand Gulf Nuclear Station
Units 1 & 2
Docket Nos. 50-416/417
File 0272/0498/15525/15526
Final Report-Withdrawal of a Significant Deficiency (Missing Reinforcement Steel in Standby Service Water Cooling Tower Basin) Number 76/8
AECM-77/20

On October 19, 1976, Mississippi Power and Light Company reported a possible significant deficiency to the U. S. Nuclear Regulatory Commission, Region II, concerning missing reinforcement steel in the Standby Service Water Cooling Tower Basins. On November 19, 1976, MP&L filed an Interim Report, Letter AECM-76/55, on this problem which was then considered to be a significant deficiency. Since that date we have determined this is not a reportable significant deficiency as defined by 10CFR50.55(e).

The following is a description of the reported deficiency:

Design documents had specified horizontal dowels (reinforcing bars) installed at six (6) inch center-to-center vertical spacing at the junction of the interior and exterior walls of the Standby Service Water Cooling Tower Basins. These horizontal dowels are incorrectly installed on twelve (12) inch center-to-center vertical spacings. The primary design requirement for this steel is to resist the hydrodynamic surges of the impounded water during the safe shutdown earthquake.

Extensive Engineering reanalyses were conducted, considering the as-built horizontal dowel spacings and all recorded nonconformances, with the conclusion that the structural integrity and function of the basins are not adversely affected.

A meeting was held with members of the NRC Structural Engineering Branch, December 8, 1976, at Bethesda, Maryland, to present and review the analytical approach which considers the original design in terms of the missing rebar. The reanalysis considers the as-built condition which envelopes the maximum horizontal bending condition that occurs in the divide wall between the top of the base mat and bottom of the roof slab at the intersection of the exterior walls. It was therefore concluded that the reported deficiency does not require a repair design. As a result, it is concluded that the Standby Service Water Cooling Tower Basins as constructed retain their structural integrity and function under all loadings.

Corrective actions relative to the Quality Assurance program which have been identified have been reviewed and confirmed for adequacy to prevent recurrence. Documentation of the detailed analyses and corrective actions taken will be available for review by Region II Inspectors at the construction site.

Yours truly,

For J. P. McGaughy, Jr.
Project Manager

TER:dw

cc: Mr. R. C. Travis
Mr. T. B. Conner
Mr. N. L. Stampley

Dr. Ernst Volgenau, Director
Division of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

bcc: QSC Members
Mr. T. W. Habermas
Mr. D. M. Lake
Mr. W. C. Hesslbein
Mr. P. J. Bender
Mr. T. E. Reaves
Mr. W. L. Nail
Mr. P. W. Sly
Significant Deficiency
Mr. C. W. Sandford
Mr. J. E. Wimberley
File