



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA ST., N.W., SUITE 3100  
 ATLANTA, GEORGIA 30303

Report No. 50-416/82-70

Licensee: Mississippi Power and Light Company  
 Jackson, MS 39205

Facility Name: Grand Gulf

Docket No. 50-416

License No. NPF-13

Inspection at Grand Gulf site near Port Gibson, MS

Inspector: *J.J. Lenahan* *for* 11-16-82  
 J.J. Lenahan Date Signed

Approved by: *T.E. Conlon* 11-16-82  
 T.E. Conlon, Section Chief Date Signed  
 Engineering Inspection Branch  
 Division of Engineering and Technical Programs

SUMMARY

Inspection on November 2-4, 1982

Areas Inspected

This special announced inspection involved 17 inspector-hours on site in the area of follow up on IE Bulletin 80-11.

Results

In the area inspected, no violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*A. Barfield, Civil Engineer, Nuclear Plant Engineering
- \*R. C. Fron, Supervisory Civil Engineer, Nuclear Plant Engineering
- G. Grim, Licensing Engineer
- \*C. K. McCoy, Plant Manager

#### Other Organizations

- J. Chapman, Civil Engineer, Bechtel
- P. Mulrenin, Civil Resident Engineer, Bechtel

#### NRC Resident Inspector

- \*A. Wagner
- \*D. Scott

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on November 4, 1982, with those persons indicated in paragraph 1 above. The licensee was informed of the inspection findings listed below. The licensee acknowledged the inspection findings with no dissenting comments.

Inspector Followup Item 416/82-70-01, Review of FCRs/FCNs pertaining to masonry wall modifications.

### 3. Licensee Action on Previous Enforcement Matters

Not inspected.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

### 5. (Open) IE Bulletin 80-11, Masonry Wall Design (Unit 1)

In a letter dated April 21, 1980, entitled Information Request on Category I Masonry Walls employed by Plants under CP&OL Review, the NRC Office of Nuclear Reactor Regulation requested data from plants under construction regarding design and construction of masonry walls in Category I structures. On May 8, 1980, NRC issued IE Bulletin 80-11 to all licensees. IEB 80-11 required a written response from plants that had operating licenses, and was issued for information only to those under construction. In a letter dated

October 2, 1980, Mississippi Power and Light Company (MP&L) provided the information requested in the NRR letter of April 21, 1980 for the Grand Gulf Plant. In a letter dated January 19, 1982 the licensee stated that they had initiated a re-evaluation of concrete masonry wall in Category I structure at Grand Gulf in accordance with IEB 80-11 requirements. Attached to this letter was a report on the re-evaluation of the masonry walls. This report contained all the information requested in IEB 80-11, as well as a comparison of the Grand Gulf masonry wall design criteria with NRC's interim criteria for safety related masonry wall evaluations. A summary of the licensee's program for re-evaluation of the masonry walls and details of the inspection of the program are stated below.

a. Summary of Masonry Wall Re-evaluation Program

In order to re-evaluate the masonry walls in accordance with IEB 80-11, the licensee conducted a field survey between November 1980 and January 1981 to identify all masonry walls in the proximity of safety related equipment. During this survey, sketches were prepared showing the location of penetrations, location and magnitude of attached loads, and any additional information which could affect the structural integrity of the walls. Upon completion of the survey, design criteria were developed which considered FSAR commitments and state-of-the-art analysis and design techniques to perform a design re-evaluation of the masonry walls using information developed during the field survey. Masonry walls which did not conform with the criteria were modified. In the fall of 1981, a second field survey was initiated to identify any additional wall attachments or changes in wall configuration, subsequent to the first survey. The walls were then re-evaluated if necessary and modified as required.

b. Field Walkdown in Safety Related Area to Identify Masonry Walls

The inspector, accompanied by licensee and Bechtel engineers, walked down the following areas to verify that all masonry walls in the proximity of safety-related equipment had been identified for design re-evaluation in accordance with the licensee's January 19, 1982 letter and IEB 80-11 requirements:

- (1) Elevations 93, 103, 119, 139, and 166 in the auxiliary building
- (2) Elevations 93, 111, 133, 148, 166, 177 and 189 in the control building
- (3) Elevation 133 in the containment building
- (4) The diesel generator building
- (5) The standby service water structures

No additional masonry walls were identified by the inspector during the walkdown. The field survey performed by licensee and Bechtel engineers appears to have been adequate to identify all masonry walls in the proximity of safety related equipment.

c. Review of Field Survey Sketches

The inspector examined sketches showing as-built details of masonry walls in proximity of safety related equipment for wall numbers C-133-003, C-148-007, and C-148-008 in the control building. These sketches were reviewed during the walkdown inspection to verify that the as built details of the masonry walls were accurate. In review of the sketches, the inspector noted that wall dimensions, location and size of wall openings and penetrations, and location and identification of wall attachments, including the manner of attachment, had been accurately recorded.

d. Inspection of Masonry Wall Modifications

The inspector examined the modifications which had been made for selected masonry walls in the auxiliary and control buildings and compared the wall modification with details shown on the construction drawings. The walls examined and the drawings showing the modification details are listed in the table below:

TABLE

<u>Wall Number</u>	<u>Wall Modification Shown on Construction Drawing Number</u>
A-139-008	A-1162 A-1165
A-139-013	A-1161 A-1163
A-166-002	A-1150 A-1161 A-1163
C-133-003	A-0881A A-0880 A-0881A
C-148-007	A-0882A A-0882C A-0882H A-0882J

C-148-088

A-0882A

A-0882J

Examination of the wall modifications for wall numbers A-139-008, A-139-013, and C-148-007 disclosed the following discrepancies

- (1) On wall A-139-008, one of the base plates for a horizontal support was welded to an embed plate. The drawings indicated that concrete expansion anchors would be used to attach the base plate to the structure
- (2) On wall A-139-013, 12 inch by 12 inch backing plates were used in place of the 10 inch by 10 inch backing plates shown on the construction drawings
- (3) On wall C-148-007, a W 4 X 13 horizontal member was not installed on the west side of the wall as required by the construction drawings

Discussions with licensee and Bechtel engineers disclosed that these changes were indicated on either approved field changes requests (FCRs) or on approved field change notices (FCNs). There was insufficient time during this inspection to review the FCRs and FCNs. The inspector will review this documentation in a future inspection. This was identified to the licensee as Inspector Followup Item (IFI) 416/82-70-01, Review of FCRs/FCNs pertaining to masonry wall modifications.

Within the areas examined, no violations or deviations were identified.