



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

Report No. 50-416/82-37

Licensee: Mississippi Power and Light Company
Jackson, MS

Facility Name: Grand Gulf

Docket No. 50-416

License No. CPPR-118

Inspection at Grand Gulf site near Port Gibson, Mississippi

Inspector: W. B. Swan
W. B. Swan

5/18/82
Date Signed

Approved by: F. S. Cantrell
F. S. Cantrell, Section Chief, Division of
Project and Resident Programs

5/18/82
Date Signed

SUMMARY

Inspection on May 4-7, 1982

Areas Inspected

This routine, announced inspection involved 32 inspector-hours on site in the areas of review of as-built configuration of plant Unit 1 and one open item on valve classification.

Results

Of the area inspected, no violation or deviations was identified.

DETAILS

1. Persons Contacted

Licensee Employees

- *T. E. Reaves, Jr., Corporate QA Manager
- *C. K. McCoy, Nuclear Plant Manager
- *J. C. Roberts, Startup Supervisor
- *J. W. Yelverton, Field QA Supervisor
- S. Tanner, QA Coordinator
- *R. Williams, Office/Services Supervisor
- *J. Kelley, NDE Specialist
- B. Lee, QA Representative
- D. Little, QA Representative
- P. Different, Technical Support Section, Reactor Engineering
- R. Dubey, PHD, Design Engineer Supervisor

Other organizations

- D. Lindsey, Lead Piping Mechanical QC Engineer,
Bechtel Power Corporation
- C. O'Neil, Project Engineering Supervisor,
Light Structures Design, Bechtel Power Corporation
- J. Novak, Design Engineer, Anchors, Bechtel Site Project Engineering

NRC Resident Inspectors

- A. Wagner, Senior Resident
- *D. Scott

*Attended Exit Interview

2. Exit Interview

The inspection scope and findings were summarized on May 7, 1982, with those persons indicated in paragraph 1 above. The licensee had no comments regarding the inspection findings.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item 416/82-10-01 "Uncertainties in ASME Code Class for Valves."

Amendment No. 55 to the FSAR issued in April, 1982 corrected the classifications of questioned non-NSSS valves to conform with class designations in the specification and drawings, which listed them as Class 2. The inspector reviewed the Amendment and found it adequate to resolve this item.

The FSAR Amendment deleted feedwater inlet valve B 21 F065-A/B and RCIC steam supply valve E 51F013 from Table 5.2-5 and added them to the listing

of non-NSSS valves in Table 3.9-3C, with ASME Section III Code Classification 2.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Review of As-builts (I&E Procedure 37051B)

The objectives of this inspection of safety-related systems were to determine that as-built conditions, design and construction drawings correctly depict the as-built condition of the plant; that changes from the original design (or SAR) were properly reviewed and approved; and that plant seismic and other stress calculations are based on as-built conditions.

Document Control:

Changes to drawings to reflect as-built conditions are primarily controlled through Bechtel field document control unit and made by Bechtel design group at Gaithersburg, Maryland. Drawing changes are routed through MP&L Records (DCU) unit of the Office Service Section. For systems which have been turned over to Startup Test, ECN's, FCR's and as-built changes are routed to the specific responsible startup engineer for verification and approval. For systems not already turned over to MP&L, the proposed or effected change documents are routed to the responsible system engineers in the MP&L technical engineering support group.

The inspector examined samples of the memoranda concerning drawing changes and as-built documentation from the records section to the systems startup supervisors and technical support units. The personnel involved were interviewed. The production of new as-built aperture cards and cancellation of the out dated cards were witnessed.

Documents reviewed included:

- a. MP&L Plant Operations Manual, Vol. 13, Section 01; Instruction 13-S-01-55, Revision 7, Office Services Section Instruction, Maintenance of Plant Drawings Safety-Related.
- b. FSAR Section 3, Design Criteria; Parts 3.5 and 3.7.
- c. Bechtel Project Engineering Procedures Manual, Section 4.3 Drawing/Document Procedures
 - 4.3.4 Design Change Package
 - 4.3.5 Design Turnover Package
 - 4.4 Calculations
 - 4.4.6 Review and Approval

- d. MP&L QA Audit No. BCGA-8207 Audit of Bechtel Gaithersburg (Construction)

Seismic Loading Considerations for As-Built Drawings:

Basic stress calculation for structure and piping systems were made by Bechtel, Gaithersburg.

Changes in loadings, static and dynamic including seismic, occur due to changes in procedures, dimensions, equipment, or location of hanger, supports, anchors, guides and snubbers. Information on changes are fed to Gaithersburg design where calculations on loading changes are made. Any necessary redesigns on systems except for anchors are accomplished there. For anchors, Gaithersburg notifies the Bechtel site Small Structures Design group of changed loadings. This group, using specified design criteria, makes revised stress calculations for any involved anchors and redesigns anchors where necessary. This procedure gives assurance that changed loadings, including seismic, are compensated for in the as-built condition.

Review of Calculations for Anchors and Restraints:

With engineers in the Bechtel site Small Structures group the inspector reviewed the calculations and drawings made for revision 2 to drawing Q1C1G002 A01 for a pipe anchor in the auxiliary building. Loadings and force directions supplied by Gaithersburg were worked into formulas based on specified design criteria.

The inspector compared the as-built configuration with details of drawing Q1E22G001C01 for a complex dual restraint on the 16" High Pressure Core Spray discharge line. No discrepancy was noted.

With a site MP&L stress analyst, the inspector reviewed checks of calculations by Bechtel Gaithersburg reported in the MP&L Audit No. BCGA-82/07 of Bechtel Gaithersburg on "Criterion III, VI, XVI, XVII, and Verification of Corrective Action." The auditors had concluded that Bechtel calculations and design for various hangers at piping systems were correct and adequately met FSAR and ASME Section III criteria for all stresses including seismic.

By discussions with the stress analyst and review of the audit report, the inspector was assured that as-built designs of anchors, restraints and piping meet requirements for seismic and other loadings.

Inspection of As-built Systems:

The inspector compared the as-built conditions of three major pipeline systems with changes noted on as-built documents. Pipe routing,

component type and location, dimensions, anchors and restraints were noted and compliance with change documents was verified. Systems inspected were:

E-12 Residual Heat Removal
E-22 High Pressure Core Spray
E-51 Reactor Core Isolation Cooling

Drawings referred to included:

M-1348 B, Rev. 14, System Piping Isometric, RHR "B" Pump Suction and Discharge - Unit 1
HL-1348B, Rev. 7 - Same Title (Hangers)
M-1346A, Rev. 23, 24, and 25, System Piping Isometric RCIC Pump Discharge to RPV Head Spray
HL-1346A, Rev. 11, Same Title, Hangers
M-1349A, Rev. 18, System Piping Isometric, HPCS Pump Discharge to Auxiliary Building and CTMT-Unit 1
HL-1349, Rev. 15, same title (Hangers)

Electrical connections to motor control valves were noted. Cable tray details, supports and routing were noted. No violation was identified.

Conclusion: The inspector determined that the licensee has a workable, working system for assuring the timeliness and accuracy of information pertaining to changes and for posting as-built drawings and associated documents. In the areas examined, the as-built information was acceptably current for status of construction and startup testing of systems.

No violation or deviation was identified in the areas examined.