



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

Report No. 50-416/82-55

Licensee: Mississippi Power and Light Company
Jackson, MS

Facility Name: Grand Gulf

Docket No. 50-416

License No. NPF-13

Inspectors:

Koss Butcher for
A. G. Wagner

7/30/82
Date Signed

Koss Butcher for
D. E. Scott

7/30/82
Date Signed

Koss Butcher for
J. W. Chase

7/30/82
Date Signed

Approved by:

Koss Butcher for
F. S. Cantrell, Section Chief, Division of
Project and Resident Programs

7/30/82
Date Signed

SUMMARY

Inspection on June 16 - July 16, 1982

Areas Inspected

This routine, announced inspection involved 218 resident inspector-hours on site in the areas of surveillance procedure review, surveillance procedure witnessing, plant tour, fuel load witnessing, review of shift logs and operations, and inspection follow-up item.

Results

Of the six areas inspected, no items of noncompliance or deviations were identified in four areas; Four items of noncompliance were found in two areas. (Failure to follow procedure; paragraph 6.a, 6.d, 7a. Failure to perform 10 CFR 50.59 evaluation; paragraph 6.b.)

DETAILS

1. Persons Contacted

Licensee Employees

- *C. K. McCoy, Nuclear Plant Manager
- *J. W. Yelverton, Quality Assurance Manager
- *M. A. Lacey, Quality Assurance Supervisor
- *R. F. Scott, QA Supervisor
- *R. A. Ambrosino, Assistant Plant Manager

Other licensee employees contacted included operators.

Other Organizations

- *F. S. Cantrell, Jr., Division Project and Resident Programs Region II
- *Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on July 16, 1982, with those persons indicated in paragraph 1 above. Exit meeting were also held on July 1 and July 9, 1982. The licensee made mitigating comments concerning various inspection findings.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 7.c.

5. Review of Surveillance Procedures

The following surveillance procedures were reviewed to verify compliance with the technical specifications (TS) for the unit.

Comments are noted:

- a. 06-OP-1000-D-0001, Operating Logs.

Procedure requires recirculation flow between loops to be within 10% if flow was less than or equal to 70% and 5% if flow was greater than or

equal to 70%. Technical Specification 4.4.1.3 requires the flow balance to be within 10% if less than 70% flow and 5% if greater than or equal to 70%.

- b. 06-OP-1C41-M-0001 which tests the Standby Liquid Control (SLC) system monthly for operation capability also checked the relief valve to be set at greater than or equal to 1386 psig. Technical Specification (T.S.) 4.1.5 requires the setpoint on the relief valve to be checked every 18 months when shutdown and to have it set at less than or equal to 1386 psig. The surveillance did not contain provisions to ensure that the relief valve does not lift during the monthly test as required by the T.S.
- c. 06-OP-1C11-W-0001 stated that it was to be performed when three control rods are inoperable. Technical Specification 4.1.3.1.2 requires the surveillance be performed when one rod is inoperable.
- d. T. S. 4.1.5.a.3 requires that the standby liquid control (SLC) pump suction piping temperature be determined every 24 hours to ensure that the heat tracing circuit is operable. The inspector determined that this surveillance was not being performed. The daily check required only the high and low alarms be checked, not the temperature. The auxiliary building daily log stated these alarms were on the 166 ft. elevation when they were on the 139 ft. level. When checked by the inspector all four low temperature alarms were in the alarm condition on the panel. The auxiliary operator stated that he was not checking that panel but the one at the SLC tank station. This panel does not indicate the suction temperature of the SLC pump and it is not the one required by the daily log sheet.

The inspector expressed his concern regarding the technical adequacy of the procedures and that a thorough review of the procedures should be performed in regards to setpoints, technical compatibility with the license and proper references. The licensee agreed to review their operations surveillance procedures prior to fuel loading. It is the inspectors understanding that appropriate corrective actions will be taken and these actions will be reviewed during a subsequent inspection. This item will be categorized as Inspector Followup Item 416/82-55-01.

These items have a diminished safety significance due to fuel not being loaded in the reactor. If however, they were to be found by the NRC after the commencement of fuel load they would constitute a violation for failure to follow procedure.

Subsequent to the licensee review the NRC was notified of a licensee identified technical specification violation. Temperatures in safety-related areas were not being verified every 12 hours as required by Technical Specification 3.7.8. They were being verified every 24 hours.

6. Plant Tours

The inspector toured portions of the control building, auxiliary building, containment, and refueling floor. The inspector observed the following activities in progress: housekeeping, equipment preservation, health physics activities, fire equipment, clearances, temporary alterations, maintenance and equipment controls. The following observations were made.

- a. On June 22, 1982 during a tour of the containment, the inspector noted two temporary test gages connected by plastic tubing to the standby service water system (SSW). The SSW lines supplied the drywell purge compressor. The gages were connected under authority of a maintenance work order for providing support for the SSW flow balance. The gages did not have a maintenance tag or a temporary alteration tag attached to them. A review of the temporary alterations log indicated that one had not been issued. This is a violation of Plant Administrative Procedure 01-5-06-3, Revision 6, paragraph 6.1.1. This violation will be identified as 416/82-55-02, failure to follow procedure.
- b. During the review of the temporary alterations log on June 22, 1982, the inspector noted that several safety-related alterations were not reviewed for unreviewed safety questions as required by 10 CFR 50.59. The alterations were: 820637 on the refueling bridge; 820640 on the neutron monitoring system; 820639 on the standby diesel generator; 820478 on the Radwaste Building HVAC, and others. This item will be identified as violation 416/82-55-03, failure to perform safety evaluations. The Grand Gulf Senior Resident Inspector and the Browns Ferry Senior Resident Inspector discussed the significance of the 10 CFR 50.59 evaluations and other possible 10 CFR 50.59 problem areas with the Nuclear Plant Manager.
- c. The following H. P. observations were made:
 - (1). On June 24, 1982, during a tour of the containment, the inspector observed an operator in a "reclined" position on the containment fuel handling crane. No crane operations were in progress at the time. The crane was controlled as a health physics regulated area. The inspector was informed that there was not a radiation hazard present. This practice is not consistent with H. P. ALARA Procedures to maintain radiation exposure as low as reasonably achievable.
 - (2). On June 24, 1982, during a tour of the refueling floor, the inspector observed a security guard passing drinking water over a radiological barrier to a worker who drank it. The worker was in a regulated area. This is inconsistent with Plant Administrative Procedure 08-2-01-21, Revision 0, Work Rules for Controlled Areas, Paragraph 6.14 prohibits drinking in regulated areas.
 - (3) On June 25, 1982, during a tours of the refueling floor, the inspector observed an operator exiting a posted contamination area

without going through a step-off pad. A step-off pad was not convenient to the operator's work area. The operator's activities were under health physics observation and control. This is inconsistent with Plant Administrative Procedure 01-S-08-3, Revision 0, Radiation Protection Manual. Paragraph 6.1.1.f. requires exit from contamination areas be made only through specified entry points.

The inspector discussed the above inconsistencies with the Plant Radiation Protection Manager (RPM). The inspector was informed that the posting were made by direction of plant management. The RPM was of the opinion that the inconsistent actions did not constitute a serious radiological hazard.

In further discussions with the Nuclear Plant Manager the inspector was told that the controls in place were for training purpose to allow plant staff personnel to become accustomed to working with radiological controls. It is the inspectors understanding that this in plant training method will be reviewed for its effectiveness in accomplishing the training objectives and appropriate action taken.

- d. On June 30, 1982, while in the containment, the inspector observed a contract engineer cross a health physics posting. The posting prohibited exit from the refueling bridge crane on the south side. This would prevent the possibility of exiting the crane into a contamination controlled area. After crossing the sign several times the engineers removed the sign. There was no health physics technicians in the area. The shift superintendent was informed. This is a violation of Radiation Protection Procedure 08-S-01-21, Revision 0, Work Rules for Controlled Areas, paragraph 6.2 which states that controlled area barriers, signs and health physics equipment must not be moved or bypassed unless designated by health physics. This violation will be identified as violation 416/82-55-04, failure to follow procedure.

This same engineer informed the bridge operator that he was going to replace a broken part on a limit switch for the rod block circuitry. The engineer stated that he did not want to wait for the work authorizing maintenance work orders to be processed. This would involve the quality assurance organization who would in turn want to see the paperwork for the replacement part. And he wanted to use a part that he had in his desk drawer with no documentation. The operator stopped the actions and notified the shift superintendent who initiated the appropriate work requests. In subsequent discussions, the Plant Manager stated corrective action had been taken.

The inspector is concerned that any person working on-site in a safety-related capacity would deliberately attempt to bypass or ignore procedural controls as described to the NRC in the Operational Quality Assurance Manual MPL-Topical-1.

7. Fuel Load Witnessing

The inspectors witnessed portions of the preparations and conduct of Startup Test Procedure 1-000-SU-03-0 Revision 2, Fuel Loading. The witnessing verified compliance with FSAR Chapter 14; Startup Manual Chapter 8000; Plant Administrative Procedure 01-S-06-02, Conduct of Operations; 01-S-06-4, Access and Conduct in the Control Room; 01-S-06-6, Fuel Management and Control; 01-S-06-10, Control of Refueling Operations; 01-S-06-12, GGNS Surveillance Program; 01-S-06-15, Special Nuclear Materials Inventory and Transfer Control. The following comments were noted.

- a. During a review of the neutron monitoring data the inspector noted that the data was not recorded, and a 1/m plot determination not made for the control cell 44-33 made up of fuel bundles 43-32, 43-34, 45-32 and 45-34. The fuel load procedure, paragraph 4.1.6 requires that data be taken and a plot made after each control cell is loaded during this part of the load. The failure to take the required data and plot is a violation of the procedure. This will be identified as violation 416/82-55-05, failure to follow procedure.
- b. During tours of the fuel loading bridge the inspectors have observed personnel not in compliance with the posted dress-out requirements. The problems include no head covering, watches and jewelry not taped over to prevent accidentally falling into the reactor vessel. It is the inspectors understanding that licensee management will review the situation and appropriate corrective action taken. The inspectors will observe the corrective action during subsequent tours of the area.
- c. The inspector reviewed the shift assignment schedule for the reactor operators and auxiliary operators since receiving a fuel load license. Technical Specification 6.2.2.f. requires adequate shift coverage without routine heavy use of overtime. The amount of overtime worked is still under evaluation. This will be identified as unresolved item 416/82-55-06.
- d. During fuel movement activities from the spent fuel pool to the containment fuel storage racks, 41 fuel bundles were not properly located in the storage racks, designated by the fuel movement plan. These positions were not correctly recorded on the material transfer reports. The location was recorded by a reactor engineer and verified by the fuel handling senior reactor operator. The bundle mislocations went on over a one day period. The error was discovered when a new shift resumed fuel handling operations.

The inspector is concerned with the adequate implementation of the same control procedures for locating fuel in the reactor. Additional checks and a recorded core mapping operation are planned upon the completion of fuel load. The inspector will review these activities during a subsequent inspection. This will be identified as inspector follow-up item 416/82-55-07.

8. Review of Shift Logs and Operations

The inspector conducted frequent reviews of the logs of on-shift personnel. The logs were reviewed to verify compliance with GGNS Administrative Procedures 02-5-01-04, Revisions 3, Shift Relief and Turnover and 02-S-01-05, Revision 2, Shift Logs and Records. The shift operations were observed to verify adherence to approved operating procedures and compliance with GGNS Administrative Procedure 01-S-06-2, Revision 4 Conduct of Operations.

During the reviews the inspectors noted that operational data limits/guidelines, e.g. high, low, normal readings were not provided in the designated columns. Several of the logs required to be kept by the reactor operator had space for a shift narrative and plant conditions. Not all of the spaces were used by the operator. The operators logs need to be usable and provided necessary information for operations. It is the inspectors understanding that this item will be reviewed and appropriate action taken. This will be identified as Inspector Follow-up Item 416/82-55-08.

9. Surveillance Test Witnessing

Portions of the following surveillance test performance was witnessed. The tests were witnessed to verify compliance with Administrative Procedures 01-S-06-12, GGNS Surveillance Program and 01-S-06-2, Conduct of Operations. This includes adequate manning, use of current procedure and adherence to procedure.

- a. 06-OP-1P81-R0005 Revision 10, HPCS Diesel Generator 13. Functional Test Restoration from trip while in emergency.

The inspector questioned the lack of acceptance criteria for the time from "D/G trip" alarm clearing to the time the diesel generator breaker closes back on the bus. The licensee stated that the other Technical Specification requirements test the time requirement and it is not required for this test. This is inspector follow-up item 416/82-55-09.

- b. 06-OP-1C71-V-0002, Revision 12, Refueling Interlock Check

No comments.

- c. 06-OP-1C51-V-0001, Revision 10, SRM Channel Function Test

No Comments

- d. 06-OP-1000-D-0001, Revision 0, Daily Surveillance

This newly issued procedure was given to a reactor operator for performance after the operating license was issued. The operator had difficulty locating the required readings and deciding what information was requested. Neither the shift supervisor nor the shift superintendent had previously seen the procedure. None of the on-shift personnel had been given any training or guidance on the procedure.

10. Inspector Follow-up Items

(Closed) Inspector Follow-up Item 416/82-40-03

The inspector reviewed the results of a licensee review to correct the Integrated Operating Instructions (IOI's) System Operating Instructions (SOI's), Alarm Response Instructions (ARI's) and Off-Normal Event Procedures (ONEP's).

The review verified correction of typos, added procedural references, corrected technical specification reference and incorporation of NRC comments.

Valve Lineup Field Checks were performed on RHR A, B,C and Standby Liquid Control System. The alarm response instructions for reactor control 680 panel were verified.

The following procedures were reviewed to verify incorporation of required corrections listed above.

03-1-01-1 Rev. 11, Cold Shutdown to Generator Carrying Minimum Load.
 03-1-01-2 Rev. 11, Power Operations
 03-1-01-3 Rev. 11, Plant Shutdown
 04-1-01-B21-1 Rev. 12, Nuclear Boiler System
 04-1-01-B33-1 Rev. 12, Reactor Recirculation System
 04-1-01-C11-1 Rev. 12, Control Rod Drive Hydroaulic System
 04-1-01-C41-1 Rev. 12, Standby Liquid Control System
 04-1-01-E12-1 Rev. 12, Residual Heat Removal System
 04-1-01-E21-1 Rev. 12, Low Pressure Core Spray System

There are no further questions. This item is closed.

(Closed) Inspector Follow-Up Item 416/82-40-04

The inspector has reviewed Administrative Procedure 02-5-01-2, Rev. 3, Control and Use of Operations Section Directives and Appointment Memo for the Directive Coordinator. There are no further questions. This item is closed.