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

Report No.: 50-416/84-10

Licensee: Mississippi Power and Light Company
Jackson, MS 39205

Docket No.: 50-416

License No.: NPF-13

Facility Name: Grand Gulf 1

Inspection at Grand Gulf site near Port Gibson, Mississippi

Inspector: T E Conlon for 4-24-84
M. D. Hunt Date Signed

Approved by: T E Conlon 4-24-84
T. E. Conlon, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Inspection on April 11-12, 1984

Areas Inspected

This routine, unannounced inspection involved 12 inspector-hours on site in the areas of gas turbine generators, licensee identified items, and inspector followup items.

Results

Of the three areas inspected, no violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*R. F. Rogeus, Assistant Plant Manager - Operations
*M. J. Wright, Technical Assistant
M. Humphries, Electrical Maintenance Engineer
*J. D. Bailey, Compliance Coordinator

NRC Resident Inspector

A. Wagner

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 12, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the findings.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Gas Turbine Generators

The licensee has installed two 2MW and one 2.2MW gas turbine generators (GTG) which can supply a total of 6.2MW to electrical buses 16AB and 15AA. The GTG system is intended to furnish power to these safety-related buses in the event of a station blackout in which the Emergency Diesel Generators are not available or fail to start and off site power is not available. The GTGs are located outside the plant security fences and are to be operated by personnel employed by Bechtel Power Corporation.

The breaker (BKR) 152-1906 that ties the GTG bus to the safety-related breakers 152-1601 (Bus 16AB) and 152-1514 (Bus 15AA) is located with the GTG installation. The 152-1906 breaker is racked out, locked, and housed in a locked building. The racking tool is not located with the breaker. It should be noted that breaker 152-1901 from ESF Transformer 11 is also connected to breakers 152-1601 and 152-1514. Therefore, when a plant black-out condition exists, it is necessary to open BKR 152-1901 before closing BKR-152-1906.

The inspector noted that a fire in the GTG area could cause an electrical fault in breaker 152-1906 or the electrical cables to this breaker. If ESF Transformer 11 was supplying power through BKR 152-1901 to Bus 16AB and/or Bus 15AA, a fault in the cabling to or at BKR 152-1906 would cause an undervoltage condition at Busses 16AB and 15AA. The licensee agreed that some action on the part of the reactor operator should be taken to prevent this undervoltage condition possibility should a fire in the GTG area be reported while Bus 16AB and/or 15AA are being energized from ESF Transformer 11. This is identified as an Inspector Followup Item 416/84-10-01, Review Procedural Controls for BKR 152-1901 in Emergency Situations.

The inspector reviewed the following off-normal event procedures which had been revised but not issued, to incorporate the operation of the GTGs in conjunction with the loss of off site power or station blackout:

Procedure No. 05-1-02-I-4 - Loss of Offsite Power

Procedure No. 05-1-02-I-6 - Station Blackout

It was noted that minor errors existed in these procedures as revised. These should be corrected and reviewed in accordance with the operations QA program. This is identified as an Inspector Followup Item 416/84-10-02, Review the Off Normal Events Procedures Revised to Incorporate the GTG System Operation.

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

6. Licensee Identified Items

(Closed) 415/CDR-83-15, Brown Boveri Spraque Type 40D Capacitor. This item was reported to Region II on October 7, 1983, and a final report dated October 10, 1983 committed to replace the trip units having capacitors that could potentially become prematurely defective. Maintenance Nonconforming Report 324-83 documented the removal and return to Brown Boveri of the units containing the questionable capacitor. The units having serial numbers below 28300 were upgraded and the capacitor replaced. Completed Maintenance Work Order No. E 39369 documents the reinstallation of the upgraded units in the safety-related switchg ar.

(Closed) 416/PRD 83-12, Failure of Agastat GP Series Relays to Switch. This item was reported to Region II on September 2, 1983, and October 17, 1983. The final report was submitted January 6, 1984. Twenty Maintenance Work Orders were issued to change out 568 relays after bench tests, functional checkout of contacts, and response time on deenergization where completed. It was noted that part of the relays were Model EGP while others were the FGP Series. Based on tests conducted by the NSSS supplier the FGP series relays have the same operating life as the GP series relays which it replaces. Since there are now relays in service which have different operating life periods the location of each series should be known. The licensee agreed that a program should be established for this purpose. This will be identified as an Inspector Followup Item 416/84-10-03, Review the Method for Finding and Controlling the FGP Series Relays.