UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report No.: 50-416/85-31

Licensee: Mississippi Power and Light Company
Jackson, MS 39205

Docket No.: 50-416 License No.: NPF-29

Facility Name: Grand Gulf

Inspection Conducted: August 7-12, 1985

Inspector: K. W. VanDyke 8/22/85
K. W. VanDyke Date Signed

Approved by: F. Jape 8/22/85
F. Jape, Section Chief Date Signed
Test Programs Section, Engneering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection involved 40 inspector-hours on site in the areas of startup testing results review and startup testing procedure review.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

   Licensee Employees

   J. D. Bailey, Compliance Coordinator
   J. E. Cross, General Manager
   *D. G. Cupstid, Start-up Test Supervisor

   Other licensee employees contacted included engineers, technicians, operators, and office personnel.

   Other Organization

   T. R. Enright, General Electric, Engineer, Startup Testing

   NRC Resident Inspectors

   R. C. Butcher, Senior Resident Inspector
   J. L. Caldwell, Resident Inspector

   *Attended exit interview

2. Exit Interview

   The inspection scope and findings were summarized on August 12, 1985, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

   This subject was not addressed in the inspection.

4. Unresolved Items

   Unresolved items were not identified during the inspection.

5. Independent Inspection Effort (72302)

   Unit 1 resumed operation on August 9, 1985, following a reactor scram due to a turbine generator rotor low cooling flow transmitter failure. The inspector witnessed portions of the startup preparations on August 8 and the startup on August 9. Activities observed included withdrawal of control

rods and adjustment of cooling water flow to the turbine generator rotor. Documentation reviewed included the reactor operator's log, shift technical advisor's log and plant computer output. In addition, the inspector conducted a general inspection of adherence to proper housekeeping and formal behavior in the control room during startup and subsequent operation. All personnel appeared to be attentive to their respective duties and responsibilities.

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

6. Startup Test Program Inspection (72300, 72301, 72512)

a. The following test procedures were reviewed to ensure that preparation, review, approval, and revision were accomplished in accordance with applicable administrative requirements. In addition, the Final Safety Analysis Report (FSAR) was reviewed to ensure testing commitments were included in the test procedures. All test procedures reviewed appeared to be adequate. The procedures and the purpose of each are as follows:

(1) 1-B33-SU-30-6, Recirculation System, Recirculation Pump Trip section only

- to obtain Recirculation System performance data during the pump trip, flow coastdown and pump restart
- to verify that the Feedwater Control System can satisfactorily control water level without a turbine trip
- to obtain baseline data for analysis of flow related neutron flux oscillations and core plate delta-P fluctuations
- to record and verify acceptable performance of the Recirculation System two-pump trip (RPT) circuit
- to obtain baseline data for analysis of flow related neutron flux oscillations and core plate delta-P fluctuations.

(2) 1-000-SU-23-6, Feedwater System, Feedwater Pump Trip section only

- to demonstrate that the feedwater system has been adjusted to provide acceptable reactor water level control by inducing level and flow transients
- to demonstrate the capability of the automatic core flow runback feature to prevent a low level scram following a feedwater pump trip via performance of that event
- to determine the feedwater flow runout capability via data collection and analysis

b. 1-B33-SU-30-6, Recirculation System Pump Trip Testing is partially complete. Recirculation Pump 'A' was tripped per section 6 of the test procedure on August 7, 1985. The inspector reviewed and evaluated the data obtained against FSAR acceptance criteria and expected test results as outlined on the licensee's test assessment form. Included in the review were the following plant parameters:

(1) Recirculation Pump 'A'

(a) High speed breaker (open/close)
(b) Speed
(c) Drive flow

(2) Recirculation Loop 'A' flow
(3) Recirculation Loop 'B' flow
(4) Core flow
(5) Feedwater flow
(6) APRM Simulated heat flux
(7) Reactor vessel level (narrow range)
(8) Flow-biased scram
(9) Flow-biased rod block

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