



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

Report No.: 50-416/85-21

Licensee: Mississippi Power and Light Company  
Jackson, MS 39205

Docket No.: 50-416

License No.: NPF-29

Facility Name: Grand Gulf 1

Inspection Conducted: June 17 - 21, 1985

Inspector: *P. T. Burnett* *10 July 1985*  
P. T. Burnett Date Signed

Approved by: *Frank Jape* *7/10/85*  
F. Jape, Section Chief Date Signed  
Engineering Branch  
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection entailed 36 inspector-hours at the site on the areas of review of completed startup tests.

Results: No violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

J. E. Cross, General Manager  
\*C. R. Hutchinson, Manager, Plant Maintenance  
R. F. Rogers, Technical Assistant  
\*J. D. Bailey, Compliance Coordinator  
M. J. Wright, Manager, Plant Operations  
\*D. Cupstid, Start-up Supervisor  
\*W. P. Harris, Compliance Coordinator

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

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on June 21, 1985, with those persons indicated in paragraph 1 above. 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

Not inspected.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

### 5. Plant Tour (71707)

The inspector accompanied the senior resident inspector on a general plant tour of portions of the control building, turbine building, and rooms containing safeguards equipment. Observations included safety-related tagout verifications, housekeeping, and general plant conditions. No conditions adverse to safety were noted.

### 6. Review of Completed Startup Tests (72532)

The following completed startup tests were reviewed to assure that the results had been reviewed and accepted by plant management, that the acceptance criteria had been satisfied, and that all test exceptions had been resolved or were being actively pursued:

a. Test Condition 1

- (1) 1-C51-SU-6-1 (Revision 1), SRM Performance, was performed over the period September 8 to October 26, 1984. The results were approved on November 1, 1984 with one test exception outstanding. That exception, LP-9, was closed by retest on November 2, 1984, with the results approved on November 16, 1984.
- (2) 1-C91-SU-13-1 (Revision 1), Process Computer, was accepted and the results approved with one open exception, MP-9, on December 20, 1984. Resolution of the exception was deferred until the end of test condition (TC) 3. The inspector confirmed that the deferral was appropriate and that timely resolution was obtained under SU-99-MP (below).
- (3) 1-C51-SU-10-1 (Revision 1), IRM/SRM Overlap was approved on October 30, 1984. It, too, referenced exception LP-9 (see (1) above).
- (4) 1-B21-SU-16-1 (Revision 1), Selected Process Temperatures and Water Level Measurements was approved on October 17, 1984. Inspector concerns in the method of averaging some of the test results are addressed in inspector followup item 416/84-50-01.
- (5) 1-N32-SU-22-1 (Revision 1), Initial Pressure Controller was approved on November 1, 1984, with no open exceptions.
- (6) 1-000-SU-23-1 (Revision 1), Feedwater System, was approved on October 12, 1984 with no open exceptions.

b. Test Condition 3

- (1) 1-C11-SU-05-2 (Revision 1), Control Drive System, was accepted on March 20, 1985, with exception MP-40 open. Further review revealed the exception was closed in SU-05-3.
- (2) 1-E51-14-2 (Revision 2), RCIC System, results were approved on April 11, 1985, with exception MP-61 open. The exception was still open at the end of middle power plateau testing. Discussions with the test engineers revealed that a plant modification to reinstall elbow taps in the RCIC pump suction line to properly measure differential pressure was required to close the exception. That modification will be performed during the next extended plant outage. In the interim, the differential pressure set point is less than 150 inches of water, which, with a measured offset of 162 inches, is conservative with respect to the limit of 363 inches required by technical specification table 3.3.2-2, item 5.a.1.
- (3) 1-N32-SU-22-2 (Revision 2), Initial Pressure Controller, results were approved on March 20, 1985 with no open exceptions.

- (4) 1-000-SU-23-2 (Revision 2), Feedwater System results were approved on February 26, 1985, with exception MP-32 open. That exception was still open at the end of middle power testing. Discussions with the test engineers revealed that the exception was not related to acceptance criteria but to the performance of function generators in obtaining baseline data. Additional tests will be performed under SU-23-6. SU-23-6. No level 1 acceptance criteria were involved in the exception.
- (5) 1-B21-SU-26-2 (Revision 2), Relief Valves, results were approved with exception MP-38 open. That exception was closed by the end of middle power testing.
- (6) 1-000-SU-27-2 (Revision 1), Generator Load Rejection within Bypass Capacity, results were approved on March 20, 1985 with no test exceptions.
- (7) 1-000-SU-28-2 (Revision 1), Shutdown from Outside the Main Control Room, results were approved without test exceptions on February 26, 1985. The licensee's written commentary on the test included identifying a need to provide a correlation between the control room narrow range vessel level indicator and the remote shutdown panel wide range indicator. Followup by the inspector revealed that the necessary correlation data had been collected, and the technical department was generating the necessary curves under a design change request.
- (8) 1-000-SU-31-2 (Revision 1), Loss of Turbine Generator and Offsite Power, results were approved on April 26 with all test exceptions closed.
- (9) 1-M51-SU-72-2 (Revision 1), Drywell Cooling System, test results were approved on January 19, 1985. Related test exception MP-31 was still open at the end of middle power testing, but it did not involve a level 1 acceptance criterion.

c. Plateau Procedures

At the close of 1-000-SU-99-MP (Revision 2), Plateau Procedure-Medium Power, there were three test exceptions open from open-vessel and low-power testing and fifteen exceptions open from medium power testing. Three of the latter were related to level 1 acceptance criteria. Review of SU-99-FP, the full power plateau procedure revealed that the three significant exceptions were resolved prior to actual power escalation.

No violations or deviations were identified in the review of the completed startup test procedures. The status of the review of the startup tests is shown in an attachment to this report.

ATTACHMENT:  
Power Level Data Review

## ATTACHMENT

## GRAND GULF UNIT 1: POWER LEVEL DATA REVIEW (file GG72532)

Startup Test Performance and Review Schedule  
(NR = not required by FSAR Table 14.2-3 )

Test No.	Title	Test Condition						
		Heatup	One	Two	Three	Four	Five	Six
SU-01	Chemical and radiochemical			NR		NR		
SU-02	Radiation measurements			NR		NR	NR	
SU-05	Control rod drive system	84-04	NR	85-21		NR	NR	
SU-06	SRM performance & rod sequence	84-04	85-21	NR	NR	NR	NR	NR
SU-08	Rod sequence exchange	NR	NR	NR	NR	NR		NR
SU-10	IRM performance	84-04	85-21	NR	NR	NR	NR	NR
SU-11	LPRM calibration		84-46	NR		NR	NR	
SU-12	APRM calibration	84-04	84-46	84-50		NR		
SU-13	Process computer		85-21	NR		NR	NR	
SU-14	RCIC system	84-04	NR	85-21	NR	NR	NR	NR
SU-16	Selected process temperature		85-21	84-50			NR	
SU-17	System expansion			NR		NR	NR	
SU-18	Core power distribution	NR	NR	NR		NR	NR	
SU-19	Core performance	NR	84-46	84-50				
SU-21	Core power-void mode response	NR	NR	NR	NR			NR
SU-22	Pressure controller setpoint changes	NR	85-21	85-21				
SU-23	Feedwater system		85-21	85-21				
SU-24	Turbine valve surveillance	NR	NR	NR		NR		
SU-25	Main steam isolation valves		NR	NR		NR		
SU-26	Relief valves		NR	85-21	NR	NR	NR	
SU-27	Turbine SV trip & gen load rejection	NR	NR	85-21		NR	NR	
SU-28	Shutdown from outside control room	NR	NR	85-21	NR	NR	NR	NR
SU-29	Recirculation flow control system	NR	84-46	NR		NR	NR	
SU-30	Recirculation system	NR	NR	84-50				
SU-31	Loss of turbine/generator & offsite power	NR	NR	85-21	NR	NR	NR	NR
SU-33	Drywell piping vibration		NR			NR		
SU-34	RPV internals vibration		NR			NR		
SU-35	Recirculation system flow calibration	NR	NR	NR		NR	NR	
SU-36	Isolated reactor stability	84-04	NR	NR	NR	NR	NR	NR
SU-70	Reactor water cleanup system		NR	NR	NR	NR	NR	NR
SU-71	Residual heat removal system	84-04	84-46	NR	NR	NR	NR	
SU-72	Drywell atmosphere cooling		NR	85-21	NR	NR	NR	
SU-74	Offgas system			NR		NR	NR	
SU-75	Cooling water system		85-21	NR		NR	NR	

84-04(typ) = Inspection in which review  
of the completed procedure was finished.