UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-8064

December 8, 2000

William A. Eaton, Vice President
Operations - Grand Gulf Nuclear Station
Entergy Operations, Inc.
P.O. Box 756
Port Gibson, Mississippi 39150

SUBJECT: GRAND GULF - NRC INSPECTION REPORT NO. 50-416/00-11

Dear Mr. Eaton:

This refers to the inspection conducted on October 1 through November 18, 2000, at the Grand Gulf Nuclear Station facility. The enclosed report presents the results of this inspection.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and conducted interviews with personnel. Specifically, this report focused on reactor safety, emergency preparedness, and physical protection.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

Joseph I. Tapia, Chief
Project Branch A
Division of Reactor Projects

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

Enclosure:
NRC Inspection Report No.
50-416/00-11

cc w/enclosure:
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Only inspection reports to the following:
Scott Morris **(SAM1)**
NRR Event Tracking System **(IPAS)**
GG Site Secretary **(MJS)**
Dale Thatcher **(DFT)**

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.:	50-416
License No.:	NPF-29
Report No.:	50-416/00-11
Licensee:	Entergy Operations, Inc.
Facility:	Grand Gulf Nuclear Station
Location:	Waterloo Road Port Gibson, Mississippi 39150
Dates:	October 1 through November 18, 2000
Inspectors:	Jennifer Dixon-Herrity, Senior Resident Inspector Timothy Hoeg, Senior Resident Inspector Peter Alter, Resident Inspector
Approved By:	Joseph I. Tapia, Chief, Project Branch A

ATTACHMENTS:

Attachment 1: Supplemental Information

Attachment 2: NRC's Revised Reactor Oversight Process

SUMMARY OF FINDINGS

Grand Gulf Nuclear Station
NRC Inspection Report No. 50-416/00-11

IR 05000416-00-11, on 10/01-11/18/2000, Entergy Operations, Inc., Grand Gulf Nuclear Station. Routine Resident Inspection Report. No findings identified.

Report Details

Summary of Plant Status: During this inspection period, the plant operated at 100 percent power, with the exception of minor power reductions for control valve testing and control rod pattern adjustments.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors performed a partial walkdown of the high pressure core spray system after the reactor core isolation cooling system was taken out of service for maintenance.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors performed walkdowns to assess the material condition of fire protection equipment and control of transient combustibles. Specific risk significant areas covered included the residual heat removal Train B rooms, three divisions of safety-related batteries, the remote shutdown panel room, and the high pressure core spray diesel generator room. The inspectors reviewed fire Preplan A-04, “RHR B Rooms,” Revision 1.

The inspectors observed as the fire protection coordinator conducted a drill for the fire brigade on November 2, 2000. The inspector verified that the drill was comprehensive and that the fire brigade was at a level of readiness to fight fires.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

The inspectors reviewed operator requalification training activities in the simulator on October 17, 2000, to assess the licensee’s effectiveness in evaluating the requalification program and ensuring that licensed individuals received the appropriate level of training required to maintain their licenses.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors reviewed three failures that were evaluated under the maintenance rule to assess the effectiveness of the implementation of the maintenance rule. Specifically, the inspectors evaluated; the indication of an air space in the reactor core isolation cooling system discharge line, the failure of the standby service water Train B cooling tower fan, and the unexpected spike into gross failure on low pressure core spray and residual heat removal Train C minimum flow trip Units 1E21N651 and 1E12N652C during surveillance testing of a suppression pool clean up valve.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Contro (71111.13)

a. Inspection Scope

Throughout the inspection period, the inspectors reviewed weekly and daily work schedules to determine when risk significant activities were scheduled. The inspectors discussed selected activities with operations and work control personnel regarding risk evaluations and overall plant configuration control. The inspectors discussed emergent work issues with work control center personnel and reviewed the prioritization of scheduled activities when scheduling conflicts occurred. Specific items reviewed during this period included:

- Reinjection of furmanite into reactor water cleanup return outboard containment isolation Valve 1G33F039

- Emergent work added to planned maintenance during scheduled downpower for control rod pattern exchange

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the operability evaluation of Condition Report CR-GGN-2000-1439, adequacy of monthly firewater system lineup surveillance procedure, for technical adequacy, applicable compensatory measures, and impact on continued plant operation.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed Maintenance Action Item 282587 and Engineering Request Number 2000-0044, "Rotate Reactor Core Isolation Cooling System Steam Supply Bypass Valve 1E51F095." The inspectors reviewed the system modification to verify the design basis, licensing basis and performance capability of the reactor core isolation cooling system has not been degraded.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors observed or evaluated the postmaintenance tests of the following systems or equipment to determine whether the tests confirmed equipment operability:

- Reactor water cleanup return outboard containment isolation Valve 1G33F039 following furmanite reinjection on October 12, 2000
- Reactor core isolation cooling system following a major equipment outage
- Functional retest of reactor protection system Division 1 alternate power supply

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed or reviewed the following surveillance tests:

- 06-IC-1E61-R-1002-05, "Channel E Containment / Drywell Differential Pressure Calibration Test," Revision 101
- 06-OP-1000-D-0001, "Daily Operating [Technical Specifications] Logs" Revision 110
- 06-OP-1E51-Q-0002, "RCIC System Valve Operability Test," Revision 104

b. Findings

No findings of significance were identified.

4 OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors verified the accuracy and completeness of the data used to calculate and report the reactor coolant system leakage performance indicator for the first two quarters of 2000. The inspectors reviewed the corrective action program records, operations department logs, performance indicator technique sheets, and NRC inspection reports to complete the verification of the performance indicators.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

a. (Closed) Licensee Event Report (LER) 50-416/00-004

Inadvertent reactor core isolation cooling (RCIC) isolation due to failure to follow procedure. This LER addressed an individual's failure to follow procedures while performing surveillance testing. This resulted in the unexpected isolation of the RCIC system. The inspectors determined that the violation was minor because alarms in the control room immediately informed the licensee of the isolation, the licensee was able to recover the system within 41 minutes after it isolated, and the RCIC system's safety function could have been met by the high pressure core spray system, which was available throughout the period of time that the RCIC system was isolated. This issue constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The event is documented

in the licensee's corrective action program under Condition Report CR-GGN-2000-1293.

b. (Closed) LER 50-416/00-005

Automatic reactor scram due to offsite 500 kV circuit breaker failure. This event was discussed in NRC Inspection Report 50-416/00-10 and was considered minor.

c. (Closed) LER 50-416/00-006

Unanalyzed condition - turbine control valves may move in excess of design assumptions. The licensee identified this unanalyzed condition while investigating the trip addressed in Paragraph 4OA3b. The safety impact of this unanalyzed condition is limited. A generic analysis conducted for BWR-6 units indicated that concurrent failures of the scram, the bypass system, and the recirculation pump trip resulted in the licensee's exceeding the fuel operating limits but incurred no fuel damage due to the brief duration of the event. The licensee has documented the condition in their corrective action program under Condition Report CR-GGN-2000-1352 and has made a temporary modification to cause the recirculation pump trip and reactor trip to occur sooner in the transient until the condition is completely analyzed and permanent corrective actions are taken.

4OA6 Management Meetings

Exit Meeting Summary

On November 22, 2000, the inspectors conducted a meeting with Joe Venable, General Manager, Plant Operations and other members of plant management and presented the inspection results. The plant management acknowledged the findings presented. Plant management also informed the inspectors that no proprietary material was examined during the inspection.

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

C. Bottemiller, Manager, Plant Licensing
B. Edwards, Manager, Maintenance
C. Ellsaesser, Manager, Corrective Action and Assessment
F. Guynn, Manager, Emergency Preparedness
T. Holcombe, Assistant Manager, Operations
C. Lambert, Director, Engineering
R. Moomaw, Manager, Outage Planning and Scheduling
J. Venable, General Manager, Plant Operations

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-416/00004	LER	Inadvertent reactor core isolation cooling system isolation due to failure to follow procedure (40A3a)
50-416/00005	LER	Automatic reactor scram due to offsite 500 kV circuit breaker failure (40A3b)
50-416/00006	LER	Unanalyzed condition - turbine control valves may move in excess of design assumptions (40A3c)

LIST OF DOCUMENTS REVIEWED

Procedures:

04-1-01-E51-1, “Reactor Core Isolation Cooling System,” Revision 113

Condition Reports:

CR-GGN-2000-0947
CR-GGN-2000-1472
CR-GGN-2000-1508

Miscellaneous:

- GG-1-SES-LOR-W0017, “Licensed Operator Requal Exam Scenario,” Revision 01
- TSTI 1C71-99-001-0-S, “Functional Retest of Reactor Protection System Division 1 Alternate Power Supply as Modified by ER 96/0403-00-01,” October 10, 2000
- E-1174, “C71 Reactor Protection System Motor Generator Set Control System,” Revision 9A
- MAI 261623, “RPS Bus A Motor Generator Backup Voltage Regulator Bench Test,” September 20, 2000

ATTACHMENT 2

NRC'S REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
•Initiating Events	•Occupational	•Physical Protection
•Mitigating Systems	•Public	
•Barrier Integrity		
•Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC used two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, or RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http:\\www.nrc.gov\NRR\OVERSIGHT\index.html.