UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

May 9, 2002

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

SUBJECT: GRAND GULF NUCLEAR STATION - NRC INSPECTION REPORT 50-416/02-03

Dear Mr. Eaton:

On April 5, 2002, the NRC completed an inspection at your Grand Gulf Nuclear Station. The enclosed report documents the inspection findings, which were discussed on April 4, 2002, with Mr. J. B. Edwards, General Manager, Plant Operations, and other members of your staff.

A supplemental exit meeting was conducted by telephone on April 25, 2002, with Mr. J. B. Edwards, General Manager, Plant Operations, and other members of licensee management.

The 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 interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter 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/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Charles M. Marschall, Chief
Engineering and Maintenance Branch
Division of Reactor Safety

Docket: 50-416
License: NPF-29

Enclosure:
NRC Inspection Report
50-416/02-03

cc w/enclosure:
Executive Vice President
and Chief Operating Officer
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Wise, Carter, Child & Caraway
P.O. Box 651
Jackson, Mississippi 39205

Winston & Strawn
1400 L Street, N.W. - 12th Floor
Washington, DC 20005-3502

Sam Mabry, Director
Division of Solid Waste Management
Mississippi Department of Natural
Resources
P.O. Box 10385
Jackson, Mississippi 39209

President, District 1
Claiborne County Board of Supervisors
P.O. Box 339
Port Gibson, Mississippi 39150

General Manager
Grand Gulf Nuclear Station
Entergy Operations, Inc.
P.O. Box 756
Port Gibson, Mississippi 39150

The Honorable Richard Ieyoub
Attorney General
Department of Justice
State of Louisiana
P.O. Box 94005
Baton Rouge, Louisiana 70804-9005

Office of the Governor
State of Mississippi
Jackson, Mississippi 39201

Mike Moore, Attorney General
Frank Spencer, Asst. Attorney General
State of Mississippi
P.O. Box 22947
Jackson, Mississippi 39225

Dr. F. E. Thompson, Jr.
State Health Officer
State Board of Health
P.O. Box 1700
Jackson, Mississippi 39215

Robert W. Goff, Program Director
Division of Radiological Health
Mississippi Dept. of Health
P.O. Box 1700
Jackson, Mississippi 39215-1700

Vice President
Operations Support
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Director, Nuclear Safety
and Regulatory Affairs
Entergy Operations, Inc.
P.O. Box 756
Port Gibson, Mississippi 39150

Electronic distribution by RIV:
Regional Administrator **(EWM)**
DRP Director **(KEB)**
DRS Director **(ATH)**
Senior Resident Inspector **(TLH4)**
Branch Chief, DRP/A **(DNG)**
Senior Project Engineer, DRP/A **(JMK)**
Staff Chief, DRP/TSS **(PHH)**
RITS Coordinator **(NBH)**
Scott Morris **(SAM1)**
GG Site Secretary **(MJS)**

SRI:EMB	SRI:EMB	SRI:EMB	SRI:EMB	RI:EMB	RI:EMB
LEEllershaw/lmb	RPMullikin	RLNease	CJPaulk	PAGoldberg	JMelfi
/**RA**/	/**RA**/	/**RA**/	/**RA**/	/**RA**/	/**RA**/
04/30/02	04/30/02	04/30/02	04/26/02	04/30/02	04/26/02

C:EMB	C:PBA	C:EMB			
CSMarschall	WDJohnson	CSMarschall			
/**RA**/	/**RA**/	/**RA**/			
4/26/02	05/01/02	05/08/02			

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket:	50-416
License:	NPF-29
Report No:	50-416/ 02-03
Licensee:	Entergy Operations, Inc.
Facility:	Grand Gulf Nuclear Station
Location:	Waterloo Road Port Gibson, Mississippi 39150
Dates:	March 18 through April 5, 2002
Team Leader:	L. E. Ellershaw, Senior Reactor Inspector, Engineering Maintenance Branch
Inspectors:	P.A. Goldberg, Reactor Inspector, Engineering Maintenance Branch
	J .F. Melfi, Reactor Inspector, Engineering Maintenance Branch
	R. P. Mullikin, Senior Reactor Inspector, Engineering Maintenance Branch
	R. L. Nease, Senior Reactor Inspector, Engineering Maintenance Branch
	C. J. Paulk, Senior Reactor Inspector, Engineering Maintenance Branch
Accompanying Personnel:	J. L. Taylor, Reactor Inspector, Engineering Maintenance Branch
	G. Miller, Reactor Inspector, Engineering Maintenance Branch
Approved By:	Charles S. Marschall, Chief Engineering Maintenance Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000416-02-03 on 03/18-04/05/2002; Entergy Operations, Inc., Grand Gulf Nuclear Station, safety system design and performance capability, and evaluation of changes, tests, or experiments.

The inspections were conducted by six regional inspectors. No findings of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) and determined by using Inspection Manual Chapter 0609, "Significance Determination Process (SDP)." Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

Report Details

1 REACTOR SAFETY

Introduction

A team inspection was performed to verify that facility safety system design and performance capability were adequate and that the initial design and subsequent modifications have preserved the current design basis of the systems selected for review. The scope of the review also included any necessary nonsafety-related structures, systems, and components that provided functions to support safety functions. The inspection effort also reviewed the licensee's programs and methods for monitoring the capability of the selected systems to perform the current design basis functions. This inspection verified aspects of the initiating events, mitigating systems, and barrier cornerstones.

The probabilistic risk assessment model for Grand Gulf Nuclear Station is based on the capability of the as-built safety systems to perform their intended safety functions successfully. The area and scope of the inspection were determined by reviewing the licensee's probabilistic risk analysis models to identify the most risk significant systems, structures, and components according to their ranking and potential contribution to dominant accident sequences and/or initiators. Deterministic effort was also applied in the selection process by considering recent inspection history, recent problem area history, and all modifications developed and implemented within the past 3 years. The team reviewed in detail the standby service water system. The primary review prompted parallel review and examination of support systems, such as, electrical power, instrumentation, room cooling systems, and related structures and components.

The objective of this inspection was to assess the adequacy of calculations, analyses, engineering processes, and engineering and operating practices that were used to support the performance of the safety systems selected for review and the necessary support systems during normal, abnormal, and accident conditions. Acceptance criteria utilized by the NRC inspection team included NRC regulations, the technical specifications, applicable sections of the Final Safety Analysis Report, applicable industry codes and standards, as well as, industry initiatives implemented by the licensee's programs.

An inspection to assess the performance of the licensee's program to meet the regulatory requirements of 10 CFR Part 50.59, "Changes, Tests, And Experiments," was also conducted by one member of the team during the first week of the inspection.

1R02 Evaluations of Changes, Tests, or Experiments (71111.02)

a. Inspection Scope

The inspectors reviewed a selected sample of 8 safety evaluations to verify that the licensee had appropriately considered the conditions under which the licensee may make changes to the facility or procedures or conduct tests or experiments without prior NRC approval. In addition, the inspectors reviewed Procedure LI-101, "10CFR50.59 Review Program," Revision 2, which implemented the new safety evaluation program.

The team reviewed a selected sample of 12 safety evaluation screenings, in which the licensee determined that safety evaluations were not required, to ensure that the licensee's exclusion of a full evaluation was consistent with the requirements of 10 CFR 50.59, "Evaluations of Changes, Tests, or Experiments."

The team reviewed 10 condition reports initiated by the licensee that addressed problems or deficiencies associated with 10 CFR 50.59 requirements to ensure that appropriate corrective actions were being taken.

b. Findings

No findings of significance were identified.

1R21 Safety System Design and Performance Capability (71111.21)

.1 System Requirements

a. Inspection Scope

The team reviewed the following attributes for the standby service water system: (1) process medium (water, steam, and air), (2) energy sources, (3) control systems, and (4) equipment protection. The team verified that procedural instructions to operators were consistent with operator actions required to meet, prevent, and/or mitigate design basis accidents. The review also considered requirements and commitments identified in the Final Safety Analysis Report, technical specifications, design basis documents, and plant drawings. These reviews further verified that required support functions for the standby service water system would be available.

b. Findings

No findings of significance were identified.

.2 System Condition and Capability

a. Inspection Scope

The team reviewed the periodic testing procedures for the standby service water system to verify that the design requirements were adequately demonstrated. The team reviewed the environmental qualification of a sample of system components to verify the capability to operate under design environmental conditions and the assumed operating parameters including: voltage, speed, power, flow, temperature, and pressure.

The team also reviewed the system's operations by conducting system walkdowns; reviewing normal, abnormal, and emergency operating procedures; and reviewing the Final Safety Analysis Report, technical specifications, design calculations, drawings, and procedures.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

a. Inspection Scope

The team reviewed a sample of problems identified by the licensee in the corrective action program to evaluate the effectiveness of corrective actions related to design issues. The sample included open and closed condition reports written or initiated in the past 3 years that identified issues related to or affecting the standby service water system.

The team also reviewed a sample of deficiency reports concerning the standby service water system which documented deficiencies resulting from the licensee's review of their Final Safety Evaluation Report. The team reviewed these deficiency reports to verify that condition reports were written in accordance with the corrective action program as appropriate.

b. Findings

No findings of significance were identified.

.4 System Walkdowns

a. Inspection Scope

The team performed walkdowns of the accessible portions of the standby service water system as well as the required support systems. The walkdowns focused on the installation and configuration of power supplies, piping, components, and instruments. During the walkdowns, the team assessed:

- The placement of protective barriers and systems,
- The susceptibility to flooding, fire, or environmental conditions,
- The physical separation of trains and the provisions for seismic concerns,
- Accessibility and lighting for any required local operator action,
- The material condition and preservation of systems and equipment, and
- The conformance of the currently installed system configurations to the current design and licensing bases.

b. Findings

No findings of significance were identified.

.5 Design Review

a. Inspection Scope

The team reviewed the current as-built instrumentation and control, electrical, and mechanical design of the standby service water system. These reviews included a review of design assumptions, calculations, required system thermal-hydraulic performance, electrical power system performance, protective relaying, and instrument setpoints and uncertainties. The team also performed a single failure review of individual components to determine the effects of such failures on the capability of the systems to perform their design safety functions.

The team reviewed calculations, drawings, specifications, vendor documents, Final Safety Analysis Report, technical specifications, emergency operating procedures, and temporary and permanent modifications.

b. Findings

No findings of significance were identified.

.6 Safety System Inspection and Testing

a. Inspection Scope

The team reviewed the program and procedures for testing and inspecting selected components in the standby service water system. The review included the results of surveillance tests required by the technical specifications.

b. Findings

No findings of significance were identified.

.7 Generic Letter 89-13 Commitments

a. Inspection Scope

The team reviewed the implementation of the licensee's commitments made in response to Generic Letter 89-13, "Service water System Problems Affecting Safety-Related Equipment," as documented in the licensee's letter dated January 29, 1990. The review included procedures, and the results of surveillance tests and maintenance activities.

b. Findings

No findings of significance were identified.

4 OTHER ACTIVITIES (ZA)

4OA6 Management Meetings

Exit Meeting Summary

The team leader presented the inspection results to Mr. J. B. Edwards, General Manager, Plant Operations, and other members of licensee management at the conclusion of the onsite inspection on April 4, 2002.

At the conclusion of this meeting, the team leader asked the licensee's management whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

A supplemental exit meeting was conducted by telephone on April 25, 2002, with Mr. J. B. Edwards, General Manager, Plant Operations, and other members of licensee management.

ATTACHMENT

Licensee Contacts :

D. Barfield, Manager, Design Engineering
C. Bottemiller, Manager, Licensing
F. Brown, Senior Engineer, Electrical, Instrumentation and Controls
M. Causey, System Engineer
N. Deshpande, Supervisor, Design Engineering
W. Eaton, Vice President
J. Edwards, General Manager, Plant Operations
D. Franklin, Supervisor, System Engineering
A. Gallagher, Mechanical Engineer, Desing Engineering
T. Holcombe, Shift Manager, Operations
C. Holifield, Senior Licensing Engineer
M. Humphries, Supervisor, Electrical, Instrumentation and Controls
G. Ingram, Licensing Engineer
G. Lantz, Senior Staff Engineer
M. Renfroe, Manager, Engineering Programs and Components
J. Roberts, Director, Nuclear Safety Assurance
G. Sparks, Manager, Operations
D. Wiles, Acting Engineering Director
D. Wilson, Design Engineer
R. Wright, Supervisor, System Engineering
H. Yeldell, Manager, System Engineering

NRC:

T. Hoeg, Senior Resident Inspector
C. Marschall, Chief, Engineering and Maintenance Branch

Documents Reviewed

Licensing Document Change Requests

2001-083, “Revise basis of Technical Specification surveillance requirements,” May 23, 2001
2001-089, “Fuel pool cooling and cleanup system,” September 26, 2001
2001-090, “Remove un-necessary details concerning procedures,” June 4, 2001
2001-141, “Loose parts detection system,” August 27, 2001
2001-178, “Modification of Inboard MSIV-LCS,” November 13, 2001

10CFR 50.59 Safety Evaluations

2002-0001-R0, January 10, 2002
2002-0001-R1, January 15, 2001
2001-0073-R0, December 10, 2001
2001-0054-R00, June 4, 2001
2001-0059-R0, June 12, 2001
2001-0240-000-00, June 14, 2001
2001-0072-R0, August 31, 2001
2000-0086-00-02, January 9, 2000

Specifications

9645-E-029.0, Technical Specification for 9000-Volt Power Cable
9645-E-030.2, Technical Specification for 600-Volt Multiconductor Control Cable

Drawings

1A0AP41A,E,F and Q1P41C001A-A, Cable and raceway routing list for cables

1061A, Standby Service Water System, Unit 1, Revision 55

1061B, Standby Service Water System, Unit 1, Revision 43

1061C, Standby Service Water System, Unit 1, Revision 34

1061D, Standby Service Water System, Unit 1, Revision 35

1072A, Plant Service Water System, Unit 1, Revision 36

1072F, Plant Service Water System, Unit 1, Revision 8

E-0121-01, Revision 8 and DRN 7684

E-0121-02, Revision 8 and DRN 3139

E-0121-03, Revision 8 and DRN 7685 and 6702

E-0121-04, Revision 10

E-0663, Enlarged Site Raceway Plans, Revision 17

E-0665, Electrical Manhole Plans, Revision 12

E-0674, Enlarged Site Raceway Plans, Revision 17

E-0688, Raceway Plan Control Bldg. El. 111’-0" Area 25A Unit 1, Revision 41

E-0690, Raceway Plan Control Bldg. Elev. 148’-0" Area 25A, Revision 42

E-0701, Raceway Plan Control Building El. 111’-0" Area 25B Unit 2, Revision 28

E-1052, Lube Oil Cooler #2020 Type SP - One Pass, Revision 2

E-1053, #2422 - Type SP - One Pass Jacket Water Cooler, Revision 15

E-1225-001, Standby Service Water Control System A, Revision 12

E-1225-002, Standby Service Water Control System B, Revision 13

E-1225-003, P41 Standby Service Water System SSW Pump C0001A Unit 1, Revision 16

E-1225-009, Standby Service Water Recirculation to Basin MOV F006A-A, Revision 7, 8, and 12

E-1225-023, HPCS Standby Service Water Pump C001C, Revision 7, 8, and 17

E-1228-007, Service Water System Cross Tie MOV F067-B, Revision 8

E-1266-02, Y47 SSW Pump House Vent System SSW PMP HSE Fan Return Mod F001B-B, Revision 9

E-1266-03, Y47 SSW Pump House Vent System SW PMP HSE Fan Return Mod F003B-B, Revision 10

E-1266-04, Y47 SSW Pump House Vent System SSW PMP HSE Fan Intake Mod F002B-B, Revision 12

E-1288-002, RSS Transfer Panel Relays R1-R2, Revision 4

E-1716, Raceway Plan Standby Service Water Cooling Towers No. 1 & No. 2, Revision 19

E-7100, Raceway Plan Standby Service Water Cooling Towers No. 1 & No. 2, Revision 3

J-1321 Sh 6, P41 Trip Unit Fault Monitor, Revision 3

J-1321 Sh 7, P41 HPCS Service Water, Revision 7

J-1321 Sh 8, P41 Computer Interface, Revision 7

J-1321 Sh 9, P41 Computer Interface, Revision 7

J-1321-000, P41 Standby Service Water System Index, Revision 23

J-1321-001, P41 Power Distribution, Revision 14

J-1321-002, P41 Standby Service Water Loop A Leak Detection, Revision 10

J-1321-003, P41 Standby Service Water Loop B Leak Detection, Revision 11

J-1321-004, P41 Standby Service Water Pressure Basin Level & Temperature, Revision 6

J-1321-005, P41 Standby Service Water Pressure Basin Level & Temperature, Revision 7

J-1358 Sh 1, Y47 Power Distribution, Revision 3

J-1358-000, Y47 Standby Service Water Pump House Vent. System Index, Revision 6

J-1358-002, Y47 Standby Service Water Pump House A & B Temperature, Revision 5

J-1358-003, Y47 Standby Service Water Pump House A Temperature, Revision 4

M-7207A, Standby Service Water System M.I.C. Inspection Locations, Revision 2

M-7207B, Standby Service Water System M.I.C. Inspection Locations, Revision 4

M-7207C, Standby Service Water System M.I.C. Inspection Locations, Revision 3

M-7207D, Standby Service Water System M.I.C. Inspection Locations, Revision 4

M-7207E, Standby Service Water System M.I.C. Inspection Locations, Revision 2

M0030B, Legend, Units 1 & 2, Revision 4

SFD-1061E, System Flow Diagram - Standby Service Water System, Revision 1

Protective Relaying and Coordination Curves

PR28, R1, PR for Bus 15AA Incoming Feeder Breakers, June 24, 1999

PR53, R1, Relay Setting for SSW Pump Motor per DCP 8215020

PR63, R0, Relay Setting, Ground Sensing Relays, August 2, 1979

PR63A, R0, Ground Overcurrent Relay on Diesel Generator, February 14, 1978

PR143, R0, Relay Settings (Loss of Excitation Relay for DG), June 12, 1978

PR144, R0, Underfrequency Relays on Diesel Generators, June 9, 1978

PR145, R0, Relay Settings (Reverse Power Relay Device #132 on Diesel Generator), June 15, 1978

PR146, R0, Diesel Generator Overcurrent Relay, June 7, 1978

Design Changes

ER-GG-2000-0086-000, “Provide engineering evaluation in response to CR 1999-1505. PSW thin wall piping in SSW A and B,” Revision 2

ER-GG-2000-0240-000, “Provide new fill location for existing SLC test barrels,” October 1, 2000

Engineering Request

97-0330-02, “Evaluation of SSW Basin Concrete,” Revision 0

Condition Reports

CR-GGN-1996-00552	CR-GGN-2000-00822	CR-GGN-2001-01849
CR-GGN-1998-00995	CR-GGN-2001-00443	CR-GGN-2001-00446
CR-GGN-1999-00341	CR-GGN-2001-01100	CR-GGN-2001-00023
CR-GGN-1999-00742	CR-GGN-2001-01136	CR-GGN-2001-00413
CR-GGN-1999-00742	CR-GGN-2001-01184	CR-GGN-2001-00488
CR-GGN-1999-01264	CR-GGN-2001-01501	CR-GGN-2001-00490
CR-GGN-1999-01863	CR-GGN-2001-01944	CR-GGN-2001-00591
CR-GGN-1999-00419	CR-GGN-2001-00461	CR-GGN-2001-01103
CR-GGN-1999-00992	CR-GGN-2001-00130	CR-GGN-2002-00226
CR-GGN-1999-00360	CR-GGN-2001-00115	CR-GGN-2002-00296
CR-GGN-1999-01505	CR-GGN-2001-00841	CR-GGN-2002-00300
CR-GGN-2000-01459	CR-GGN-2001-01705	CR-GGN-2002-00389
CR-GGN-2000-00322	CR-GGN-2001-01714	CR-GGN-2002-00511
CR-GGN-2000-01107	CR-GGN-2001-01738	CR-GGN-2002-00246
CR-GGN-2000-01263		

Discrepancy Forms

D-9.2.1.3-2, Revision 1	D-9.2.1.3-20, Revision 0	D-9.2Table9.2-17-2, Revision 1
D-9.2.1.3-3, Revision 1	D-9.2.1.3-29, Revision 1	RG1.2.27-1, Revision 0
D-9.2.1.3-4, Revision 1	D-9.2.5.2.-1, Revision 0	RG1.2.27-2, Revision 0
D-9.2.1.3-7, Revision 0	D-9.2Table 9.2-2-1, Revision 1	RG1.2.27-3, Revision 0
D-9.2.1.3-9, Revision 1	D-9.2Table9.2-5a-2, Revision 0	RG1.2.27-4, Revision 0
D-9.2.1.3-10, Revision 0	D-9.2Table9.2-6a-2, Revision 0	RG1.2.27-5, Revision 0
D-9.2.1.3-14, Revision 0	D-9.2Table9.2-17-1, Revision 0	

Procedures

01-S-03-10, “GGNS Condition Report," Revision 1

04-1-01-E32-1, “System Operating Instruction Main Steam Isolation Valve Leakage Control System Safety Related,” Revision 26

04-1-01-P41-1, “ System Operating Instruction - Standby Service Water System,” Revision 115

04-1-03-A30-1, “Equipment Performance Instruction Cold Wether Protection Non-Safety Related,” Revision 13

04-1-03-P41-1, “Equipment Performance Instruction - SSW “A” Chemical Addition Run,” Revision 2

04-1-03-P41-2, “Equipment Performance Instruction - SSW “B” Chemical Addition Run,” Revision 1

04-1-03-P41-3, “Equipment Performance Instruction - SSW “C” Chemical Addition Run,” Revision 1

04-1-03-P46-1, “Equipment Performance Instruction - “A” ESF Switchgear Room Coolers Flow Test,” Revision 16

04-1-03-P46-2, “Equipment Performance Instruction - “B” ESF Switchgear Room Coolers Flow Test,” Revision 16

04-1-03-Z51-1, “Equipment Performance Instruction - “A” Control Room Air Conditioner Flow Test,” Revision 11

04-1-03-Z51-2, “Equipment Performance Instruction - “B” Control Room Air Conditioner Flow Test,” Revision 5

05-1-02-I-1, “Off-Normal Event Procedure - Reactor Scram,” Revision 109

05-1-02-II-1, “Off-Normal Event Procedure shutdown from the Remote Shutdown Panel Safety Related,” Revision 25

05-1-02-V-11, “Off-Normal Event Procedure - Loss of Plant Service Water,” Revision 21

05-ME-1000-R-0003, “Safety and Relief Valve Functional Test,” Revision 103

05-ME-1P41-R-0001, “Internal Valve Inspection P41F-F174,” Revision 101

06-CH-1000-V-0038, “Surveillance Procedure Diesel Fuel Oil Receipt Analysis Safety Related,” Revision 103

06-IC-1B21-Q-1014, “Surveillance Procedure ADS Air Receiver Low Pressure Functional Test Safety Related,” Revision 100

06-IC-1E31-Q-0021, “Surveillance Procedure LPCS/RHR/HPCS Header Differential Pressure Functional Test Safety Related,” Revision101

06-OP-1000-D-0001, “Daily Operating Logs,” Revision 112

06-OP-1B21-C-0004, “Surveillance Procedure ADS Air System Valve Tests Safety Related,” Revision 104

06-OP-1B21-V-0001, “Surveillance Procedure MSIV Operability Test Safety Related,” Revision 107

06-OP-1E51-Q-0002, “Surveillance Procedure RCIC System Valve Operability Test Safety Related,” Revision 106

06-OP-1E51-Q-0003, “Surveillance Procedure RCIC System Quarterly Pump Operability Verification Safety Related,” Revision 113

06-OP-1P41-M-0004, “Standby Service Water (SSW) Loop A Operability Check,” Revision 107

06-OP-1P41-Q-0004, “Standby Service Water Loop A Valve and Pump Operability Test,” Revision 111

06-OP-1P41-Q-0005, “Standby Service Water Loop B Valve and Pump Operability Test,” Revision 114

06-OP-1P41-Q-0006, “HPCS Service Water Valve and Pump Operability Test,” Revision 105

06-OP-1P42-Q-0001, “CCW Fuel Pool Heat Exchanger Valve Test,” Revision 101

06-OP-1P72-C-0002, “Drywell Chilled Water Cold Shutdown Valve Test,” Revision 101

07-S-13-11, “General Maintenance Instruction Calibration/Calibration Check of Thermocouple Points,” Revision 9

07-S-13-41, “General Maintenance Instruction Non-Modulating Pneumatic Valves Low Pressure Switch,” Revision 2

07-S-14-395, “General Maintenance Instruction Safety and Relief Valve Program Safety Related,” Revision 4

07-S-53-19, “Calibration of Bailey 771 Chart Recorder,” Revision 5

07-S-53-25, “Bailey Type 744 Difference Alarm Unit,” Revision 2

07-S-53-38, “Maintenance Calibration Instruction Rosemount 1151, 1152, and 1153 Pressure Transmitters,” Revision 7

07-S-53-335, “Maintenance Calibration Instruction Calibration of Westronics Recorders,” Revision 2

07-S-53-P41-3, “Loop Calibration Instruction SSW Basin A and B Level Control,” Revision 2

07-S-53-P41-8, “Loop Calibration Instruction Standby Service Water Pump Discharge Flow,” Revision 10

07-S-53-P41-10, “Loop Calibration Instruction Standby Service Water Basin Level Indication,” Revision 7

07-S-53-P41-12, “Loop Calibration Instruction HPCS SW Flow and SW Leakage High,” Revision 10

07-S-53-P41-14, “Loop Calibration Instruction HPCS Service Water Pump Discharge Pressure,” Revision 8

07-S-53-Y47-1, “Loop Calibration Instruction Standby Service Water Pump House Ventilation Temperature,” Revision 5

08-S-03-10, “Chemistry Procedure - Chemistry Sampling Program,” Revision 31

08-S-03-14, “Chemistry Procedure - Chemistry Additions to Plant Systems,” Revision 16

08-S-04-400, “Chemistry Instruction - Chemistry Water Treatment Performance Monitors,” Revision 1

17-S-06-21, “Performance and System Engineering Instruction - ESF SWGR Room Cooler and Control Room AC Flow Trending Program,” Revision 2

17-S-06-22, “Performance and System Engineering Procedure - SSW “A” Performance,” Revision 7

17-S-06-23, “Performance and System Engineering Procedure - SSW “B” Performance,” Revision 8

17-S-06-24, “Performance and System Engineering Procedure - SSW “A” Performance,” Revision 3

GGNS-MS-46, “Program Plan for Monitoring Erosion/Corrosion in Moderate Energy Piping Components,” Revision 2

GGNS-MS-51, “Program Plan for Monitoring and Controlling Microbiologically Induced Corrosion (Safety Related),” Revision 0

LI-102, “Corrective Action Process," Revision 1

LL-101, “10CFR50.59 Review Program,” Revision 2

LL-101, “10CFR50.59 Review Program,” Revision 1-1A

OE-100, “Operating Experience Program,” Revision 1

QAI 9.29, “Radiographic Examination for Microbiological Induced Corrosion (MIC),” Revision 4

Calculations

3.9.12, “SGTS Infiltration Due to Pipe Break,” Revision 2

EC-01R21-91041, “Verification of Protective Coordination for 4.16 KV Div.II, Bus 16AB,” Revision 0

EC-Q1111-91039, “Cable Amp Rating,” Revision 0

JC-01Y7-N602-1, “Instrument Loop Uncertainty & Setpoint Determination for System 1Y47 Loop N602 SSW Pump House Fan Damper Control,” Revision 0

JC-Q1Y47-N602-1, “Instrument Loop Uncertainty and Setpoint Determination for System 1Y47 Loop N602 SSW Pump House Fan Damper Control,” Revision 0

MC-Q1P41-86007, “Standby Service Water Ultimate Heat Exchanger Performance,” Revision 0, and Supplement 1

MC-Q1P41-87215, "Evaluation of Low SSW (P41) Flow to the Standby Diesel Jacket Water Cooler," Revision 1

MC-Q1P41-97020, "Determination of Minimum Allowable SSW Flows (LOCA Lineup) to Safety Related Heat Exchangers," Revision 3

MC-Q1P41-97036, “Determination of Fuel Pool Cooling & Cleanup Heat Exchanger Capability,” Revision 0

MC-QSZ51-01001, "Determination of Control Room Heat Load at 90^{o} F," Revision 0

MC-QSZ51-96006, "Thermal Performance Evaluation of the Control Room Air Conditioning System," Revision 1

Heat Exchanger Data Sheets

Control Room A/B Air Conditioner Condensers
Fuel Pool Cooling and Cleanup Heat Exchangers
HPCS Diesel Generator Jacket Water Coolers
RHR Heat Exchangers
Standby Diesel Generator A/B Jacket Water Coolers

Work Order

00199421

Maintenance Action Items

220259	259524	271031	275013	281957	288354
250769	260027	272095	281954	282672	292129
259055	267515	274993	281955	284609	299815
259523	270188	275010	281956	287096	305630

Inservice Test Documents

GGNS-01-002, “Engineering Report for Testing Requirements of P44-F052,” Revision 0
CEP-IST-1, “Inservice Testing Bases Document, Entergy Nuclear South,” Revision 2B

Standby Service Water Pump B (1P41C001B) Inservice Testing Performance, 2/28/02

Summary of results for standby service water pressure relief valves for refueling outage 10

Summary of results for standby service water pressure relief valves for refueling outage 11

Miscellaneous Documents

Desktop Guidelines, Updated Final Safety Analysis Report Consistency Review Project, Identification and Documentation of Discrepancies, dated September 30, 1997

Fire Pre-Plan A-04, Revision 1

Letter to the U.S. Nuclear Regulatory Commission from Entergy, providing their response to the NRC's request for information concerning the Grand Gulf Nuclear Station, pursuant to 10 CFR 50.54(f), dated February 6, 1997

Letter to the U.S. Nuclear Regulatory Commission from Entergy, providing an update on their review of the Grand Gulf Nuclear Station Updated Final Safety Analysis Report, dated December 28, 1999

Licensee’s January 29, 1990, letter to NRC in response to Generic Letter 89-13

Report on Engineering Self Assessment of the Grand Gulf Standby Service Water System, March 14, 2002

Results of "SSW 'B' Performance - Thermal Performance Test," July 17, 2001

Results of Technical Special Test Instruction TSTI SZ51-00-001-O-S, "Control Room Air Conditioning Unit Z51B002B Assumed Heat Load Demonstration," completed May 11, 2000

Specification No. M-500.0, “Fire Hazards Analysis,” Revision 12

Standard No. GGNS-MS-39.0, Revision 1

Summary of thermal performance test results for all safety-related heat exchangers

Vendor Manual 460002161, Model 86 Temp-Matic Thermocouple Monitor, Revision 1