



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA, SUITE 400  
ARLINGTON, TEXAS 76011-4005**

November 12, 2002

Paul D. Hinnenkamp  
Vice President - Operations  
River Bend Station  
Entergy Operations, Inc.  
P.O. Box 220  
St. Francisville, Louisiana 70775

SUBJECT: RIVER BEND STATION - NRC INSPECTION REPORT 50-458/02-06

Dear Mr. Hinnenkamp:

On October 11, 2002, the NRC completed an inspection at your River Bend Station. The enclosed report documents the inspection findings which were discussed on October 11, 2002, with Mr. P. Hinnenkamp, Vice President Operations, and other members of your staff.

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. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of 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 its enclosure will be 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 S. Marschall, Chief  
Engineering and Maintenance Branch  
Division of Reactor Safety

Docket: 50-458  
License: NPF-47

Enclosure:  
NRC Inspection Report  
50-458/02-06

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DOCUMENT: S:\DRS\REPORTS\RB2002-06RP-Team-PAG.wpd

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket: 50-458  
License: NPF-47  
Report No.: 50-458/02-06  
Licensee: Entergy Operations, Inc.  
Facility: River Bend Station  
Location: 5485 U.S. Highway 61  
St. Francisville, Louisiana  
Dates: September 23 through October 11, 2002  
Inspectors: P. Goldberg, Senior Reactor Inspector, Engineering and Maintenance Branch  
L. Ellershaw, Senior Reactor Inspector, Engineering and Maintenance Branch  
J. Melfi, Reactor Inspector, Engineering and Maintenance Branch  
G. Miller, Reactor Inspector, Engineering and Maintenance Branch  
Accompanying Personnel: J. Leivo, Contractor Beckman and Associates  
P. Tiipana, NRC Visitor from Finland  
Approved By: Charles S. Marschall, Chief  
Engineering and Maintenance Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

IR 50-458/02-06; 09/23-10/11/02; Entergy Operations, Inc.; River Bend Station; Safety system design and performance capability.

The inspection was conducted by four regional inspectors and one NRC contractor. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

No finding of significance were identified.

## 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 the River Bend Plant is based on the capability of the as-built safety systems to perform its 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.

The team reviewed in detail the emergency diesel generators and the high pressure core spray systems. The primary review prompted parallel review and examination of support systems, such as, electrical power, instrumentation, 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.

#### 1R21 Safety System Design and Performance Capability (71111.21)

##### .1 System Requirements

###### a. Inspection Scope

The team reviewed the following attributes of the emergency diesel generator and the high pressure core spray systems: (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.

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 emergency diesel generator and high pressure core spray systems to verify that the design requirements were adequately demonstrated. The team also reviewed the systems' 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 for the past 3 years that identified issues affecting the selected systems. Older condition reports that were identified while performing other areas of the inspection were also reviewed.

b. Findings

No findings of significance were identified.

.4 System Walkdowns

a. Inspection Scope

The team performed walkdowns of the accessible portions of the emergency diesel generators and high pressure core spray systems, 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 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 instrument and control, electrical, and mechanical design of the emergency diesel generator and high pressure core spray systems. These reviews included a review of design assumptions, calculations, required system thermal-hydraulic performance, electrical power system performance, protective relaying, control logic, and instrument setpoints and uncertainties. The team also performed selected single-failure evaluations of individual components and circuits 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, Regulatory Guide 1.97 submittal, 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 emergency diesel generator and high pressure core spray systems. The review included the results of surveillance tests required by the Technical Specifications.

The team reviewed the program and procedures for testing and inspecting the emergency diesel generator system including the jacket water system and the lube and fuel oil support systems.

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. P. Hinnenkamp, Vice President Operations, and other members of licensee management at the conclusion of the onsite inspection on October 11, 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. Some proprietary information was identified, but it was returned to the licensee.

## ATTACHMENT

### Licensee Contacts :

L. Ballard, Supervisor Quality  
R. Biggs, Coordinator Licensing  
R. Brian, Director Engineering  
C. Busl, Assistant Operations Plant Manager  
T. Gates, Systems Engineering Manager  
R. Gauthreaux, Supervisor Design Engineering  
J. Heckenberger, PS&O Manager  
P. Hinnenkamp, Vice President Operations  
K. Huffstatler, Licensing Specialist  
K. Klamert, Diesel System Engineer  
R. King, Director Licensing  
J. Leavines, Manager Licensing  
W. Mashburn, Programs and Components Manager  
R. McAdams, Supervisor NSSS  
D. Mims, General Manager Plant Operations  
P. Schlesinger, Design Engineering Mechanical Design  
W. Stuart, HPCS System Engineer  
T. Trepanier, Assistant General Manager  
M. Walton, Sr. Licensing Specialist

### Documents Reviewed:

#### Safety Evaluations

NUREG-0989, River Bend Station Safety Evaluation Report, May 1984 through Supplement 5

SEN 99-0004, 50.59 Evaluation of ER 98-050, Revision 1

#### Condition Reports

2000-0575  
1999-1913  
2001-0664  
2000-0241  
2002-0672  
1999-1835  
1999-1170  
1999-0912  
2002-01438  
2002-01545  
2002-0034  
2000-00026  
2002-01551  
1995-0335  
2002-00478  
2002-00413  
2000-1838

2001-1641  
2001-0437  
2002-01550  
2002-00544  
2000-183  
ER 98-0580  
97-2010A  
97-2110  
1999-1687  
1999-0912  
2000-0252  
2000-1009  
2000-1547

Procedures

EDP-AA-20, "Engineering Calculations," Revision 15

ENG-3-028, "Processing of System Design Criteria Documents," Revision 4

STP-000-6606, "Section XI Safety and Relief Valve Testing," Revision 0

STP-203-6305, "HPCS Quarterly Pump and Valve Operability Test," Revisions 10, 11, and 12

STP-203-6604, "HPCS Bypass and Test Return Valves to CST - 24 Month Leak Rate Test,"  
Revisions 0 and 1

STP-203-6605, "HPCS System 18 Month Position Indication Verification Test," Revision 4

STP-203-6805, "HPCS Cold Shutdown Valve Operability Test," Revisions 7 and 8

EDP-AA-77, "Control of Locked Valve List," Revision 09

GMP-0099, "Instrument Sensing Line High/Low Point Valves," Revision 3

Repetitive Task No. 11354, E22-FTN005 and E22-FTN056 (instrument purge), dated  
February 21, 2001

MCP-1032, "Testing and Calibration of GE Type IJF-51A Relay," Revision 5A

SOP-0053, "Standby Diesel Generator and Auxiliaries (System #309), "Revision 34

OSP-0028, "Log Report - Normal Switchgear, Control, and Diesel Generator Buildings, "  
Revision 30

STP-309-0202, "Division II Diesel Generator Operability Test," Revision 24

STP-309-6302, "Division II EDG Fuel Oil Transfer Quarterly Pump and Valve Operability Test,"  
Revision 16

STP-309-6304, "Division I EDG Forward Bank Air Start System Quarterly Valve Operability Test," Revision 11

STP-309-6307, "Division I EDG Rear Bank Air Start System Quarterly Valve Operability Test," Revision 3

STP-000-0001, "Daily Operating Logs," Revision 41B

OSP-0027, "Log Report - Main Control Room," Revision 15

OSP-0029, "Daily Log Report Auxiliary, Reactor, and Fuel Buildings," Revision 16

OSP-0030, "Log Report - Turbine Building," Revision 15B

OSP-0031, "Log Report - Outside Area," Revision 17

OSP-0032, "Log Report - Radwaste/Auxiliary Control Buildings and Auxiliary Control Room," Revision 10

#### Surveillance Tests

E22-PC001, High Pressure Core Spray Pump Quarterly Operability Test

E22-AOVF005, Check Valve Open/Close Cold Shutdown Operability Test

E22-MOVF001, HPCS Pump CST Suction Valve, Position Indication Verification Test, and Open/Close Operability Test

E22-MOVF004, HPCS Injection Isolation Valve, Open/Close Cold Shutdown Operability Test

E22-MOVF010, HPCS Test Bypass Valve to CST, Position Indication Test, Leak Rate Test, and Close Operability Test

E22-MOVF015, HPCS Pump Suppression Pool Suction Valve, Position Indication Test, and Open/Close Operability Test

E22-MOVF023, HPCS Test Return to Suppression Pool, Position Indication Verification Test

E22-RVF014, Safety and Relief Valve Testing

E22-RVF035, Safety and Relief Valve Testing

E22-RVF039, Safety and Relief Valve Testing

E22-VF002, Check Valve Open Operability Test

STP-309-203, Division III Diesel Generator Operability Test, Revision 24A

STP-309-0603, Division III ECCS Test, Revision 21A

STP-203-1102, E22-S001BAT Weekly Surveillance, Revision 16

STP-309-6306, Division III HPCS EDG Air Start System Quarterly Valve Operability Test, Revision 8A

STP-203-1302, E22-S001BAT Quarterly Surveillance, Revision 17

STP-309-0201, Division I Diesel Generator Operability Test, Revision 22

STP-309-0203, "Division III Diesel Generator Operability Test," revision 24A, performed October 10, 2002

#### Work Orders

320106

311950

322915

329746

332397

340884

344114

347458

347846

350523

352250

361593

P597414

#### Modifications

E&DCR C-15, 153B, "Remove the Class Breaks at Valves 1EGF\*PCV25A&B," Revision B

E&DCR C-22, 964C, "Turbocharger Prelube System," Revision C

MR 87-0524, "Discrepancy on P&ID 8-9A," Revision 6

ER-RB-1997-0981-000, "Provide Corrected Level Versus Volume Curves for Fuel Oil Storage and Day Tanks," Revision 0

ER-96-0509, "Reconciliation of Loop Calibration Reports to Set Point Data Sheets," Revision 0

#### Calculations

G13.18.14.0\*98, "Minimum Service Water Flow for Division I and II Diesel Generator Heat Exchangers," Revision 0

G13.18.14.0\*166, "Heat Rejected by Emergency Generator Division I and II to Cooling Water," Revision 0

ES-061, "Post-LOCA Draw Down Level Change in Suppression Pool & VOLMAX," Revision 5

PEP-0245, "Division I Standby Diesel Generator Jacket Water Cooler Data and Performance Evaluation," Revision 0

PEP-0246, "Division II Standby Diesel Generator Jacket Water Cooler Data and Performance Evaluation," Revision 0

G13.18.2.2\*09, "Effect of Venting on HPCS NPSH," Revision 0

G13.18.2.2\*009, "Level Instrument Effect on Post Containment Venting HPCS NPSH," Revision 0, Addendum A

G13.18.9.5\*055-0, "Impact of Off-site and Control Room LOCA Doses due to Additional Leakage Paths Through the HPCS and RCIC Test Return Lines," Revision 0

ER-97-0548, "105% Power Uprate Evaluation Report for GE Task No. 13.0 Containment Analysis," Revision 1

ES-061-5, "Post-LOCA Draw Down Level Change in Suppression Pool and VOLMAX," Revision 5

G13.18.2.2\*31, "NPSH available for ECCS pumps for suction from the suppression pool under accident conditions," Revision 1

G13.18.2.6\*183, "High Pressure Core Spray System Hydraulic Performance," Revision 0

G13.18.2.2\*09, "Effect of Venting on HPCS NPSH," Revision 0

G13.18.2.2\*009, "Level Instrument Effect on Post Containment Venting HPCS NPSH," Revision 0, Addendum A

G13.18.9.5\*055-0, "Impact of Off-site and Control Room LOCA Doses due to Additional Leakage Paths Through the HPCS and RCIC Test Return Lines," September 2, 1997

12210-IA-E22\*4, "Setpoint Calculation for HPCS Condensate Storage Tank Low-Level Bistables 1E22\*ESN654C&G," Revision 2, Addendum B

12210-IA-100, "Worst Case & Normal Indication Errors for HPCS Pump 1E22\*PC001 Discharge Flow Rate from Transmitter 1E22\*FTN005 as Displayed on Indicator 1E22\*FIR603," Revision 0

G.13.3.E-143, "Standby Battery ENB-BAT01A Duty Cycle, Current Profile, and Size Verification," Revision 9, Addendum O

G.13.3.E-192, "Standby Diesel Generator Loading Calculation," Revision 4, Addendum V

G13.3.E-225, "Voltage Calculation of Category I 480 V Motor Operated Valves," Revision 4, Addendum F

G13.18.3.6\*009, "Division III 125 Vdc Battery Sizing, Load Flow, Circuit Voltage Drop, Short Circuit, Charger Verification and Cable Verification," Revision 2

G13.18.6.1.B21\*013, "Reactor Vessel Water Level - Low-Low, Level 2," Revision 1

G13.18.6.1.E22\*009, "Instrument Loop Uncertainty/Setpoint Determination for HPCS System Flow Rate - Low (Bypass) Function," Revision 0

G13.18.6.1.E22\*010, "HPCS Pump Suction Transfer - CST Level - Low (E22-ESN654C &G)," Revision 0

G13.18.6.1.E22\*011, "Instrument Loop Uncertainty/Setpoint Determination for HPCS Pump Suction Transfer - Suppression Pool Water Level High," Revision 0

PM-175, "Standby Diesel Generator Fuel Oil Day Tank Capacity," Revision 1, Addendum A

PM-218, "Standby Diesel Generator Fuel Oil Transfer Pump Capacity Verification," Revision 02A

G13.18.10.1-014, "Standby Diesel Generator Fuel Oil Storage Tank Capacity," Revision 0, Addendum B

G13.18.2.1\*083, "Diesel Generator Building Design Basis Calculation - Summer Condition," Revision 0, Addendum A

G13.18.2.6\*039, "Lube Oil Consumption for Div I, II, & III Diesel Generators," Revision 0

G13.18.14.0\*68, "Div I, II, and III Diesel Generator Lube Oil Sump Dipstick Markings for Tech Spec Compliance," Revision 0

G13.18.2.3\*185, "G.L. 89-10 Design Basis Review for E22-MOVF-12," Revision 5

G13.18.2.6\*183, "Subsystem Fill Pumps Calculation of TDH, NPSH, and Heat Dissipation Capabilities," Revision 3

#### Design Criteria

R-SEA-97-004-00, Engineering Report for "Applicability of Information Notice 91-56 to River Bend Station," September 2, 1997

22A3131AR, "High Pressure Core Spray System Design Specification Data Sheet," Revision 9

Pump Curves for High Pressure Core Spray Pump, E22-PC001

SDC 309/405, "High Pressure Core Spray Diesel Generator Div III, Diesel Generator Building Ventilation," Revision 1

SDC-203, "High Pressure Core Spray System Design Criteria," Revision 0

SDC-309, "(Div I & II), Standby Diesel Generator Division I & II, Diesel Generator Building Ventilation System Design Criteria, System Numbers 309 & 405," Revision 0

SDC-309/405, "High Pressure Core Spray Diesel Generator Division III, Diesel Generator Building Ventilation System Design Criteria System Numbers 309 & 405," Revision 0



Drawings

BE-230D, 4.16 kV Bus 1E22\*S004 Relay Settings, Revision 0

EE-001K, 4160 V One Line Diagram, Standby Bus1ENS\*SWG1A, Revision 17

EE-001L, 4160 V One Line Diagram, Standby Bus1ENS\*SWG1B, Revision 14

EE-001M, 4160 V One Line Diagram, Standby Bus E22-S004, Revision 8

EE-001SA, 480 V One Line Diagram, 1E22\*S002, Control Building, Revision 11

ESK-05SWP06 Sheet 1, Elementary Diagram, Standby Service Water Pump P2C, Revision 25

ESK-05SWP06 Sheet 2, Elementary Diagram, Standby Service Water Pump P2C, Revision 2

ESK-06CSH01 Sheet 1, Elementary Diagram, 480 V Control Circuit, HPCS Pump Suction Valves, Revision 8

ESK-06CSH03 Sheet 1, Elementary Diagram, 480 V Control Circuit, HPCS Pump Injection Shutoff & Minflow to Suppression Pool Valve, Revision 6

ICNS-110 Sheet 1, Loop Diagram, Condensate Storage Tank Level, September 25, 1981

LSK-9-10.03C, Logic Diagram, Service Water-Standby, Revision 19

LSK-9-10.3Z, Logic Diagram, Service Water-Standby, Revision 15

PID-27-04A, Engineering P&I Diagram System 203, HPCS System, Revision 24

0221.415-000-101, 125 Vdc Distribution System, 2600 kW 4160 V, 3 Phase, 60 Hz, 0.8 PF Emergency Diesel Generator 22712AU Sheet 1, Revision G

0221.415-000-102, DC Control Schematic, 2600 kW 4160 V, 3 Phase, 60 Hz, 0.8 PF Emergency Diesel Generator 22712AU Sheet 2, Revision F

0221.415-000-121, DC Control Schematic, 2600 kW 4160 V, 3 Phase, 60 Hz, 0.8 PF Emergency Diesel Generator 22712AU Sheet 1, Revision H

0221.418-000-003, One Line Diagram [125 Vdc] High Pressure Core Spray System, Revision N

12210-E-238, HPCS Pump Motor 1E22\*C001 and Diesel Generator 1E22\*S001 Time-Current Characteristic Curves, Revision 1

152D8167 Sheet 1, Functional Control Diagram, HPCS Power Supply, Revision 5

152D8167 Sheet 2, Functional Control Diagram, HPCS Power Supply, Revision 6

152D8167 Sheet 3, Functional Control Diagram, HPCS Power Supply, Revision 6

152D8167 Sheet 4, Functional Control Diagram, HPCS Power Supply, Revision 7

828E536AA Sheet 1, Elementary Diagram, High Pressure Core Spray System, Revision 22

828E536AA Sheet 4, Elementary Diagram, High Pressure Core Spray System, Revision 15

828E536AA Sheet 5, Elementary Diagram, High Pressure Core Spray System, Revision 17

828E536AA Sheet 7, Elementary Diagram, High Pressure Core Spray System, Revision 23

828E537AA Sheet 2, Elementary Diagram, HPCS Power Supply System, Revision 30

828E537AA Sheet 7, Elementary Diagram, HPCS Power Supply System, Revision 30

828E537AA Sheet 8, Elementary Diagram, HPCS Power Supply System, Revision 28

828E537AA Sheet 9, Elementary Diagram, HPCS Power Supply System, Revision 23

851E892AA Sheet 1, Functional Control Diagram, HPCS System, Revision 7

851E892AA Sheet 2, Functional Control Diagram, HPCS System, Revision 5

PID-08-09A, System 309 Diesel Generator, Revision 12

PID-08-09B, System 309 Diesel Generator, Revision 17

PID-08-09C, System 309 Diesel Generator, Revision 14

PID-08-09D, System 309 Diesel Generator, Revision 19

#### Miscellaneous Documents

CEP-IST-1, "Inservice Testing Bases Document," Revision 2

CEP-IST-2, "IST Plan-Valve and Pump Summary Listing," Revision 2

System Status/Health Report for High Pressure Core Spray, System 203

RBS ER 99-0737, Modify Safety Related Limitorque Actuator to increase the torque output capability as a result of Limitorque Technical Update 98-01, Revision 0

Setpoint Data Sheet Number E22\*PISN651, "Minimum Flow Interlock," dated May 6, 1996

Setpoint Data Sheet Number E22\*ESN651, "HPCS pump discharge Header Pressure," dated December 6, 1995

Setpoint Data Sheet Number E22\*ESN656, "HPSC pump discharge Header Flow," dated December 6, 1995

Setpoint Data Sheet Number E22\*FISN651, "Minimum Flow Control," dated May 6, 1996

Loop calibration Report Data Sheet, 1, ILDFR.046, "Auxiliary Building Floor Sump TK3F Level

DFR-LT139," Revision 2

Maintenance Rule data, HPCS System

Surveillance Test Data sheets for STP-309-6306, dated 10/11/00, 12/5/01, 2/27/02, 5/22/02

C-68972, Stone & Webster Engineering Corp. Engineering & Design Coordination Report, FDDR LDI-2334 Revision 2, May 10, 1985

E22\*FISN656, Setpoint Data Sheet, "Minimum Flow Control," Revision 3

E22\*PISN651, Setpoint Data Sheet, "Minimum Flow Interlock," Revision 3

LDI-2334, General Electric Field Deviation Disposition Request, "E22-S001, HPCS Power Supply," Revision 2.

NEDO-10905, General Electric Licensing Topical Report, "High Pressure Core Spray System Power Supply Unit," May 1973

NEDO-10905, Amendment 1 (responses to first round AEC requests for additional information), August 1974

NEDO-10905, Amendment 2 (responses to second round AEC requests for additional information), April 1976

NEDO-10905, Amendment 3 (test plan and results), August 1979

21A1913AK, General Electric Purchase Specification, "High Pressure Core Spray Pump," Revision 3

22A3131, General Electric Specification, "High Pressure Core Spray System," Revision 5

22A3131AR, General Electric Design Specification Data Sheet, "High Pressure Core Spray System," Revision 9

C-68972, Stone & Webster Engineering Corp. Engineering & Design Coordination Report, FDDR LDI-2334 Revision 2, May 10, 1985

E22\*FISN656, Setpoint Data Sheet, "Minimum Flow Control," Revision 3

E22\*PISN651, Setpoint Data Sheet, "Minimum Flow Interlock," Revision 3

LDI-2334, General Electric Field Deviation Disposition Request, "E22-S001, HPCS Power Supply," Revision 2

22A3743, General Electric Specification, "Emergency Core Cooling System Network," Revision 2

22A4622AT, General Electric Design Specification Data Sheet(high drywell pressure setpoint), Revision 14

12210-IA-62A-1SWPC08, Setpoint Data Sheet, "Standby Service Water Pump C Load

Sequencing Permissive Time Delay," Revision 2

1.ILCNS.021, Loop Calibration Report, Condensate Storage Tank Level Loop CNS-LT-110, Revision 3

E/IC-99-03, "Failure Modes and Effects Analysis for the Standby Diesel Generator Control System," Revision 1

LOOP 1.ILEGF.012, "Standby Diesel Generator Fuel Oil Day Tank A," Revision 4