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

October 30, 2000

EA 00-242

Randal K. Edington, Vice President - Operations
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

SUBJECT: NRC INSPECTION REPORT NO. 50-458/00-17

Dear Mr. Edington:

On October 6, 2000, the NRC completed a safety system design and performance capability inspection at your River Bend Station facility. The results of this inspection were discussed on October 6, 2000, with you and other members of your staff.

This inspection was an examination of 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.

Based on the results of this inspection, the NRC has identified issues that were evaluated under the risk significance determination process as having very low safety significance (green). The NRC has also determined that two violations are associated with these issues. These violations are being treated as Non-Cited Violations, consistent with Section VI.A of the Enforcement Policy. The Non-Cited Violations are described in the subject inspection report. If you contest these violations or significance of the Non-Cited Violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001 and the NRC Resident Inspector at River Bend Station facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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,

/RB/

Jeffrey L. Shackelford, Chief
Engineering and Maintenance Branch
Division of Reactor Safety

Docket No.: 50-458
License No.: NPF-47

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NRC Inspection Report No.
50-458/00-17

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.:	50-458
License No.:	NPF-47
Report No.:	50-458/00-17
Licensee:	Entergy Operations, Inc.
Facility:	River Bend Station
Location:	5485 U.S. Highway 61 St. Francisville, Louisiana
Dates:	September 18 through October 6, 2000
Team Leader:	Michael F. Runyan, Senior Reactor Inspector Engineering and Maintenance Branch
Inspectors:	Richard W. Deese, Reactor Inspector Engineering and Maintenance Branch
	William M. McNeill, Reactor Inspector Engineering and Maintenance Branch
	Charles J. Paulk, Senior Reactor Inspector Engineering and Maintenance Branch
	Javier Rodriguez, Resident Inspector Reactor Projects Branch E
Accompanying Personnel:	Robert Quirk, Consultant
Approved By:	Jeffrey L. Shackelford, Chief Engineering and Maintenance Branch Division of Reactor Safety

ATTACHMENTS:

Attachment 1: Supplemental Information

Attachment 2: NRC's Revised Reactor Oversight Process

SUMMARY OF FINDINGS

River Bend Station
NRC Inspection Report No. 50-458/00-17

IR 05000458-00-17; on 09/18-10/06/2000; Entergy Operations, Inc.; River Bend Station; Safety System Design and Performance Capability Inspection

This report covers a 2-week onsite inspection by a team of five Region IV inspectors and one contractor. The report includes the results of a safety system design and performance capability team inspection of the residual heat removal system, 480 Vac, and 125 Vdc systems. Two issues identified during the inspection are discussed in the report. The significance of these issues is indicated by their color (green, white, yellow, red) and was determined by the Significance Determination Process in Inspection Manual Chapter 0609.

Cornerstone: Mitigating Systems

- Green. The licensee failed to identify that a failure of the Division I hydrogen igniter to start in 1999 was a maintenance preventable functional failure. Consequently, when the same failure occurred in 2000, a repeat maintenance preventable functional failure was not identified. As a result, the hydrogen igniter system was not assessed as required for inclusion under the licensee's maintenance rule provisions of 10 CFR 50.65(a)(1). This was identified as a violation of 10 CFR 50.65(a)(1) and additionally of 10 CFR 50.65(a)(2), since the performance monitoring provisions of this section were not properly accomplished. This violation is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy. This violation (EA-00-242) (50-458/0017-01) was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1762 (Section 1R21.2.b).

  This finding was of very low safety significance because the Division II hydrogen igniter train was operable during this period and alone could have fulfilled the design intent of the system. Additionally, the risk significance of the hydrogen igniter system is very low.

- Green. The specified minimum voltage on the ac buses used to calculate equipment operability was based on an assumption of 95 percent nominal voltage at the Fancy Point substation in lieu of the more limiting technical specification allowable value for the degraded grid voltage relays on the 4.16 kV buses. The technical specification bases stated that these relays were set high enough to ensure that sufficient power was available to the required equipment. However, design calculations did not exist to support this statement. The non-conservative voltage assumption resulted in overestimating the minimum voltage available for motor-operated valves and other loads on the safety-related 480 Vac buses. This discrepancy was identified as a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," and is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy. This violation (50-458/0017-02) was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1764 (Section 1R21.5.b).

This finding was of very low safety significance because the probability of an accident accompanied by a degraded offsite grid is extremely unlikely, and, were it to occur, operators would have the option of detaching from the grid and powering the vital buses from the emergency diesel generators. Also, the design calculations contained a conservative assumption for amperage that could potentially be revised to offset the effect of lowering the assumed available voltage.

Report Details

1. **REACTOR SAFETY**
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R21 Safety System Design and Performance Capability

.1 System Requirements

a. Inspection Scope

The team verified that heat removal needs for the residual heat removal (RHR) system (including the low pressure safety injection, shutdown cooling, and suppression pool cooling modes), as well as the 480 Vac and 125 Vdc systems (including the associated inverters, battery chargers, and batteries) were met. In this regard, the team reviewed calculations, specifications, and testing of the cooling loads for the rooms in which the equipment was located.

The team verified that required inputs to components, such as flow, pressure, and temperature parameters, were consistent with design basis analyses for the RHR, 480 Vac, and 125 Vdc systems and their support systems. In this effort, the team compared the Updated Safety Analysis Report and system design criteria to calculations, engineering requests, and the equipment found in the field.

The team verified that operating procedures were consistent with operator actions for accident and abnormal conditions and verified that instrumentation and alarms were available to operators for making necessary decisions.

The team reviewed electrical power and control signals to RHR pumps PC002A, B, and C, and major motor- and air-operated valves. For the 480 Vac system, the team reviewed the availability of electrical power to safety-related loads during accident and off-normal conditions. For the 125 Vdc system, the team verified the capacity of the safety-related batteries and battery chargers.

The team reviewed the process media required for operation of the RHR system. These media included the water and electrical supplies for the RHR system. This effort included review of piping and instrumentation diagrams, operating procedures, calculations, the Updated Safety Analysis Report , system descriptions, and design bases documents. This review was performed to verify that the process media will be available and unimpeded during accident or off-normal conditions.

b. Findings

No findings were identified.

.2 System Condition and Capability

a. Inspection Scope

The team reviewed equipment protection efforts with respect to fires, floods, missiles, and high energy line breaks. This assessment included inspection of hose stations, flood doors, building structure, and pipe whip restraints that were identified in design documents as being installed on the RHR, 480 Vac, and 125 Vdc systems.

The team verified that operation and system alignments were consistent with design and licensing basis assumptions.

The team verified that applicable insights from operating experience had been applied to selected components in the RHR, 480 Vac, and 125 Vdc systems.

The team reviewed safety-significant RHR pumps and motor-operated valves to ensure that they received adequate electrical voltage. The team reviewed selected RHR air-operated valves to ensure that they failed to a safe position.

The team reviewed design calculations (listed in Attachment 1) to verify that the design bases had been appropriately translated into design calculations and procedures. The team also reviewed the environmental qualification of equipment in the RHR system to verify that the equipment was qualified to perform its intended function when required, subject to the accident environment.

The team also reviewed the predictive maintenance program for the RHR system to verify that the licensee was monitoring for potential degradation of components. Through a review of historical and current maintenance records including performance tests, the team evaluated the RHR and support system components for signs of degradation.

The team verified that design-basis assumptions had been appropriately translated into procedures for the RHR, 480 Vac, and 125 Vdc systems. This effort consisted of review of normal operating, annunciator response, and emergency operating procedures; Updated Safety Analysis Report; technical specifications; system design criteria; and plant drawings.

b. Findings

While attempting to start the Division I hydrogen igniters for testing on May 12, 1999, the 480 Vac power supply breaker (EHS-MCC2A BKR 3A) igniters tripped, resulting in a failure of the system to operate. The licensee considered this breaker failure to be a nuisance trip. As corrective action, the licensee adjusted the breaker instantaneous trip setting from the No. 1 setting to the No. 2 setting in accordance with their guidance for nuisance tripping (based on industry practice and the National Electric Code). This action raised the instantaneous trip current setting from the as-found value of 1100 percent full load amps to near (but not above) a setting of 1300 percent full load amps. The breaker was retested satisfactorily and no additional actions were taken. At the time, the licensee categorized the incident as a functional failure, but did not consider it to be a maintenance preventable functional failure (MPFF) as defined under the Maintenance Rule.

On March 28, 2000 while attempting to start the Division I hydrogen igniters for maintenance, Breaker EHS-MCC2A BKR3A tripped again. A more in-depth investigation into this trip resulted in an engineering evaluation revealing that the correct instantaneous trip setting for the breaker was the No. 3 position, corresponding to the minimum acceptable value above 1300 percent full load amps. An inspection of the Division II hydrogen igniter instantaneous trip setting (an action prescribed after the May 1999 trip, but not performed until after the March 2000 trip) showed it to be properly set on the No. 3 position. As far as the licensee could determine, the breaker settings for both divisions of hydrogen igniters had not been changed since initial plant construction (until the Division I setting was changed from the No. 1 to No. 2 position in 1999 as described above). The licensee determined that the March 2000 failure was an MPFF under the Maintenance Rule.

The team reviewed the available testing and material history information for both divisions of the hydrogen igniter system and determined that the failure on May 12, 1999 should have been designated as an MPFF. This was because at no time in the construction or operating history of the plant had the Division I breaker been properly set at the No. 3 trip setting, nor had any preventative maintenance checked the trip setting of the breaker to assure its adequacy. Also, because the cause of the improper breaker setting was indeterminate, an MPFF should have been identified as a conservative measure.

Considering the May 1999 MPFF along with the licensee-documented MPFF in March 2000, a repetitive MPFF situation existed. Given the documented performance criteria chosen by the licensee (no repetitive MPFFs), the Division I hydrogen igniter system should have been monitored in accordance with 10 CFR Part 50.65(a)(1). Because of the failure to properly classify the first failure as an MPFF, evaluations to determine whether the system should be monitored under 10 CFR 50.65(a)(1) did not occur. The team found that the licensee failed to demonstrate effective maintenance on this component and also failed to address the potential that the problem could affect other components.

The team evaluated this issue using the significance determination process. The hydrogen igniter system is of low risk significance and, during the time that the problems existed, the other division was operable. Since no actual loss of safety function of safety-related equipment occurred and since no Technical Specification limits were exceeded, the safety significance of this issue was very low (Green).

10 CFR 50.65 (a)(2) states that monitoring as specified in 10 CFR 50.65(a)(1) is not required where it has been demonstrated that the performance or condition of a structure, system, or component is being effectively controlled through the performance of appropriate preventive maintenance, such that the structure, system, or component remains capable of performing its intended function. In this instance, the licensee failed to demonstrate that the performance of the hydrogen igniter system was being effectively controlled through the performance of appropriate preventive maintenance. The initial test failure (in 1999) was not properly accounted for as an MPFF, resulting in the failure to identify the second failure as a repeat occurrence. As a result, the Division I hydrogen igniter system was not evaluated to determine whether additional maintenance was required to verify that the problem was not common mode, nor were effective measures taken to ensure that the system remained capable of performing its function. This was identified as a violation of 10 CFR 50.65(a)(1)/(a)(2). This violation is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy. This violation (EA-00-242) was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1762 (50-458/0017-01).

.3 Identification and Resolution of Problems

a. Inspection Scope

The team reviewed a sample of RHR, 125 Vdc, and 480 Vac system problems identified by the licensee’s corrective action program to evaluate the effectiveness of corrective actions related to design issues. A list of condition reports reviewed by the team is provided in Attachment 1 to this report. During this review, selected elements of Inspection Procedure 71152, "Identification and Resolution of Problems," were used as guidance.

The team also evaluated corrective actions taken by the licensee to address operator work-arounds.

b. Findings

No findings were identified.

.4 System Walkdowns

a. Inspection Scope

The team performed walkdowns of the accessible portions of the RHR, 480 Vac, and 125 Vdc systems and supporting equipment The walkdowns focused on the installation and configuration of piping, components, and instruments; the placement of protective barriers and systems; the susceptibility to flooding, fire, or other environmental concerns; physical separation; the provisions for seismic concerns; and accessibility for operator action.

b. Findings

No findings were identified.

.5 Design Review

a. Inspection Scope

The team reviewed electrical one line drawings, calculations, vendor recommendations, and maintenance procedures for the 480 Vac and 125 Vdc electrical systems. The team also reviewed process and instrumentation diagrams, logic and elementary wiring drawings, and selected instrument uncertainty calculations associated with accident and off-normal operation of the RHR system.

b. Findings

During review of Calculation G13.3 E-225, “Voltage Calculation of Category 1 480V Motor Operated Valves,” Revision 3, the team concluded that non-conservative motor control center voltages were used when calculating the voltages at safety-related motor-operated valve motor terminals. As a result, the voltage values used to determine the operability of individual motor-operated valves in response to Generic Letter 89-10, “Safety-Related Motor-Operated Valve Testing and Surveillance,” were non-conservative.

The bases for Technical Specification 3.3.8.1, “Loss of Power Instrumentation,” note that the degraded voltage setpoints for the 4160V emergency buses are set high enough to ensure that emergency core cooling system loads will operate when the offsite power supply has degraded to a point where pump motors, motor-operated valves, and associated control components may not operate properly. Technical Specification, Table 3.3.8.1-1, states that the allowable value for Division I and II degraded voltage is ≥3605V before the emergency buses are automatically separated from offsite power and re-powered from the emergency diesel generators. The corresponding setpoint for the Division III bus is ≥3702V.

During the review of Calculation G13.3 E-225, the team noted that the motor-operated valve capability calculations were based on an assumption that grid voltage would not fall lower than 95 percent of nominal voltage at the nearby Fancy Point substation. According to Calculation E-132, “Voltage Profile,” Revision 3, this (95 percent) assumption corresponded to 3781V on Bus 1NNS-SWG1A, 3870V on 1NNS-SWG1B, and 3779V on 1NNS-SWG1C (Divisions I, II, and III of the Class 1E 480 Vac electrical system). Under normal and accident conditions not associated with a loss of offsite power, these three buses supply power to safety-related Division I, II, and III motor-operated valves. The team determined that Calculation G13.3 E-225 should have used the lowest allowable value (from Technical Specification 3.3.8.1) associated with the degraded voltage relay setpoints on the 4160V emergency buses when connected to the preferred (offsite) power supply. The Technical Specification 3.3.8.1 values correlate to values significantly less than those used in Calculation G13.3 E-225, as shown below:

Bus	Technical Specification 3.3.8.1 allowable value	Minimum voltage assumed in Calculation G13.3 E-225
Division I (1NNS-SWG1A)	3605V	3781V
Division II (1NNS-SWG1B)	3605V	3870V
Division III (1NNS-SWG1C)	3702V	3779V

The significance of this issue is that the voltage at the terminals of safety-related motor-operated valves could, under certain conditions, be lower than the value assumed in Calculation G13.3 E-225. Consequently, the team questioned the capability of safety-related motor-operated valves to generate adequate torque during design basis accidents.

The licensee issued Condition Report CR-RBS-2000-1764 and performed an operability assessment, concluding that there was sufficient voltage to ensure that motor-operated valve could perform their safety functions. The electrical design engineering supervisor stated, based on a review of several years of completed surveillance tests, that the actual degraded voltage instrument setpoints had not experienced any significant drift and remained close to the nominal setpoints. He further stated that the recently completed grid stability calculations determined that if voltage at the Fancy Point Substation approached the 95 percent condition, then the loss of all offsite power was only fractions of a second away and that the loss of voltage setpoints would be reached before the degraded voltage timer setpoint would be reached. Based on this fact, the Fancy Point substation and 4160V emergency voltage level at the time of the inspection, and a calculation conservatism (use of full locked-rotor current in lieu of the typically-used half locked- rotor current when determining the motor-operated valve terminal voltage), the team did not challenge the licensee's operability determination.

The team recognized that the probability of an accident in conjunction with a degraded grid was very low. Also, the team considered that the low voltage condition would be transitory and subject to correction by operator action (transfer of power to the emergency diesel generators). Therefore, the risk significance, as determined by use of the significance determination process, was very low (Green). However, the team considered this issue as being more than minor because three of the five motor-operated valves selected for a more thorough review were already in a state where the terminal voltages were classified as less than optimal because worst case transient voltages were marginal. The licensee's electrical design engineering supervisor stated that all safety-related motor-operated valve calculations would be revised to be consistent with the technical specifications. This effort was to be completed approximately by the end of December 2000.

Appendix B of 10 CFR Part 50, Criterion III, "Design Control," states, in part, that "measures shall be established to assure that applicable regulatory requirements and the design basis, as defined in §50.2 and as specified in the license application, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." In this case, the design basis voltages were not correctly translated to the limiting voltages specified for safety-related motor-operated valves. This was identified as a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy. This violation was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1764 (50-458/0017-02).

.6 Safety System Testing

a. Inspection Scope

The team reviewed results from completed safety-related battery service and performance tests.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES (OA)

.4OA6 Meetings, including Exit

.1 Exit Meeting Summary

The team presented the inspection results to Mr. Edington and other members of licensee management at the conclusion of the inspection on October 6, 2000. The licensee acknowledged the findings presented.

The team asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

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R. Edington, Vice President
T. Gates, Manager, Design Engineering
T. Hoffman, Supervisor, Engineering
D. Mims, General Manager
T. Moffitt, Design Engineering
D. Williamson, Licensing

NRC

T. Pruett, Senior Resident Inspector
S. Schneider, Resident Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

458/0017-01	NCV	Failure to implement the Maintenance Rule (Section 1R21.2.b)
458/0017-02	NCV	Improper minimum voltage assumed in design calculations (Section 1R21.5.b)

DOCUMENTS REVIEWED

The team reviewed the following documents to accomplish the objectives and scope of the inspection and to support any findings:

Calculations:

ES-146, "Pool Temperature Response to Stuck Open Relief Valve Isolation and ADS Events," Revision 0

G13.18.2.1*061, "Auxiliary Building Design Basis Heat Loads and Unit Cooler Sizing Verification," Revision 0

G13.18.2.1*62, "Auxiliary Building LOCA w/LOOP Temperature Transient Analysis/Zone Temperature w/Loss of HVAC," Revision 1

G13.18.12.2*10, "Safe at Removal System Temperature Sensing Unit Transmitter 1RHS*R"TD47D," Revision 0

G13.18.4.6-3, "RHR Heat Loads under Various Operating Modes," Revision 0

12210-IA-113, "Worst Case Errors for Suppression Pool Temperature Recorders and Indicators, CMS-TR40A,B; 1CMS*TR103; 1MS*TI40B,D," Revision 0, with Addenda A, B, and D

E-132, 'Voltage Profile," Revision 3

E-143, "Standby Battery ENB-BAT01A Duty Cycle, Current Profile, and Size Verification," Revision 9

E-144, "Standby Battery ENB-BAT01B Duty Cycle, Current Profile, and Size Verification," Revision 5

E-178, "Voltage Drop Calculation for Standby 480 and 120/240 Volt Distribution System," Revision 1

E-219, "480Vac Normal and Standby MCC Load Tabulation, Revision 2

E-222, "Load Tabulation for 480Vac Normal and Standby Load Centers," Revision 1

E-225, "Voltage Calculation of Category 1 480V MOV, Revision 4 with addenda A, B
G13.18.2.3*160, Generic Letter 89-10 Design Basis Review for E12-MOV F042A and MOVF042B," Revision 3

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

G13.18.2.3*171, "Generic Letter 89-10 Design Basis Review for E12-MOV F094," Revision 1

G13.18.2.3*172, "Generic Letter 89-10 Design Basis Review for E12-MOV F096," Revision 2

G13.18.2.3*244, "Generic Letter 89-10 Design Basis Review for E12-MOV F042C," Revision 4

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

G13.18.3.6*021, "DC System Analysis, Methodology, and Scenario Development," Revision 0

G13.18.6.1.B21*016, "Reactor Vessel Water Level - Low Low Low Level 1 Instrument Loop Uncertainty/Setpoint Determination," Revision 0

G13.18.6.1.B21*020, "Reactor Vessel Pressure - Low Instrument Loop Uncertainty/Setpoint Determination," Revision 1

12210-IA-114, “Worst Case errors for RHR Heat Exchanger Discharge Temperature Recorders 1RHS*TR47A, B,” September 6, 1985

G13.18.2.6*041, “Flow Required Through the Service Water Side of an RHR Heat Exchanger During LOP or LOP-LOCA Conditions Considering ‘Max Safeguards’,” Revision 2

G13.18.2.6*06, “Sizing of Orifice Plates for RHS A & B Test Return Lines,” Revision 3

G13.18.2.6*067, “Flow Through RHR and LPCS Pumps When Both Are in Minimum Recirculation Mode Simultaneously,” Revision 0

PH-112, “RHR System Relief Valve Header Pressure and Individual RV Backpressure,” Revision 0

PN-263, “Sizing Orifice on RHR, LPCS, HPCS & RCIC Subsystem Fill Pumps Recirculation Lines,” April 1, 1985

PN-268, “RHR System Pumps TDH & NPSHA Except LPCI (Mode A-2) Operation,” Revision 4

G13.18.14.1*2, “Maximum Acceptable RHR HX Overall Heat Transfer Coefficient,” Revision 0

ES-141, “LOCTVS Data Deck for FSAR Analysis,” Revision 4A

G13.18.2.2*031, “NPSH Available for ECCS Pumps for Suction From the Suppression Pool Under Accident Conditions,” Revision 0

GENE 23A5462, “RHR Heat Exchanger Calculated Performance,” Revision 1

<u>Condition Reports</u>:

1986-0199	1999-0605	1999-0896	1999-1756	2000-0704	2000-1351
1989-0911	1999-0665	1999-0923	1999-1866	2000-0723	2000-1623
1994-1481	1999-0718	1999-0926	2000-0041	2000-0779	2000-1648
1997-1393	1999-0777	1999-0932	2000-0069	2000-0831	2000-1652
1998-0591	1999-0784	1999-0966	2000-0107	2000-0856	2000-1656
1998-0794	1999-0842	1999-1025	2000-0132	2000-0857	2000-1659
1998-1572	1999-0854	1999-1522	2000-0505	2000-0908	2000-1736
1999-0225	1999-0860	1999-1538	2000-0518	2000-1055	2000-1739
1999-0560	1999-0863	1999-1572	2000-0523	2000-1088	2000-1761
1999-0602	1999-0870	1999-1692	2000-0601	2000-1169	2000-1764

<u>Drawings</u>:

Control Drawings:

1-RHS-002-CD-A, "1-RHS-020-002-2," Revision 3
1-RHS-003-CD-A, "1-RHS-020-003-2 & 016-023-2," Revision 11
1-RHS-017-CD-A, "1-RHS-010-017-2," Revision 5

1-RHS-032-CD-A, "1-RHS-014-032-2," Revision 5

One Line Diagrams:

EE-001ZC, "One Line Diagram Stby Bus A & B Low Voltage Distribution System," Revision 11

EE-001ZJ, "125V One Line Diagram Normal & Standby Backup Charger Sys," Revision 17

EE-001ZG, "125V One Line Diagram Standby Bus A 1ENB*SWG01A, 1ENB*PNL02A, 03A," Revision 15

EE-001ZH, "125V One Line Diagram Standby Bus B 1ENB*SWG01B, 1ENB*PNL02B, 03B," Revision 16

EE-1L, "4160 V One Line Diagram Standby Bus 1ENS*SWG1B," Revision 14

EE-1WA, "480 V One Line Diagram 1EHS*MCC14A &14 B Standby SWGR Room 1A," Revision 6

EE-42OL, "Seismic Conduit Installation Plan El. 115'-0", 116'-0" Control Bldg," Revision 8

EE-001YB, "480 V One Line Diagram 1EHS*MCC8B Standby Switchgear," Revision 7

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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, and 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. And 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 plan, as described in the Action Matrix.

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