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

April 17, 2002

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

SUBJECT: NRC INTEGRATED INSPECTION REPORT 50-458/01-07

Dear Mr. Hinnenkamp:

On March 30, 2002, the NRC completed an inspection at your River Bend Station. The enclosed report documents the inspection findings which were discussed on April 4, 2002, with you 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.

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/reading-rm/adams.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/

David N. Graves, Chief
Project Branch B
Division of Reactor Projects

Docket: 50-458
License: NPF-47

Enclosure:
NRC Inspection Report
50-458/01-07

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket:	50-458
License:	NPF-47
Report No.:	50-458/01-07
Licensee:	Entergy Operations, Inc.
Facility:	River Bend Station
Location:	5485 U.S. Highway 61 St. Francisville, Louisiana
Dates:	December 30, 2001, through March 30, 2002
Inspectors:	P. J. Alter, Senior Resident Inspector S. M. Schneider, Resident Inspector M. O. Miller, Resident Inspector C. J. Paulk, Senior Reactor Inspector, Engineering and Maintenance Branch G. B. Miller, Reactor Inspector, Engineering and Maintenance Branch B. D. Baca, Health Physicist, Plant Support Branch C. A. Clark, Reactor Inspector, Engineering and Maintenance Branch
Approved By:	D. N. Graves, Chief, Project Branch B
ATTACHMENT:	Supplemental Information

SUMMARY OF FINDINGS

River Bend Station
NRC Inspection Report 50-458/01-07

IR 05000458-01-07; on 12/31/2001-03/30/2002; Entergy Operations, Inc; River Bend Station. Integrated Resident & Regional Report. No findings of significance were identified.

The inspections were conducted by the resident inspectors, two regional engineering program inspectors, and a regional radiation protection inspector. No findings of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) 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/ASSESS/index.html.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Findings

One violation of very low significance which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear to be reasonable. This violation is listed in Section 4OA7 of this report.

Report Details

Summary of Plant Status: The reactor was operated at 100 percent power throughout the inspection period.

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

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

a. Inspection Scope

The inspector reviewed a selected sample of eight 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. The inspector used the Updated Safety Analysis Report (USAR), the NRC Safety Evaluation Report, and other licensing basis documents as references for the basis of verification.

The inspector reviewed a selected sample of 10 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, "Evaluation of Changes, Tests, or Experiments."

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

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspectors performed safety-related system walkdowns to verify equipment alignment and discrepancies that impact the function of the system and potentially increase risk. The inspectors also verified that the licensee has properly identified and resolved equipment alignment problems that could impact mitigating system availability.

.1 Division I Engineered Safety Feature 4160 Vac System Walkdown

During the week of March 4, 2002, the inspectors performed a complete system walkdown of Division I Engineered Safety Feature 4160 Vac system. Specifically, the inspectors: (1) reviewed the listed documents to determine the correct system lineup; (2) reviewed outstanding maintenance work requests to ensure that no deficiencies existed that could affect the ability of the system to perform its safety function; and

(3) reviewed outstanding design issues, temporary modifications, operator workarounds, and pending design changes.

- System Operating Procedure SOP-0046, “4.16 KV System,” Revision 18
- Surveillance Test Procedure STP-000-0102, “Power Distribution Alignment Check,” Revision 3A
- USAR Section 8.3.1, “Onsite Power Systems: AC Power Systems”
- Technical Specifications Section 3.8, “Electrical Power Systems”

Additionally, the inspectors sampled the licensee’s corrective action program to ensure that the licensee had identified equipment alignment problems at the appropriate threshold and evaluated their resolution for risk significant systems. Condition reports reviewed included:

- CR-RBS-2000-1169, voltage calculations of Category I 480V motor-operated valves do not reflect normal lineup
- CR-RBS-2000-1764, calculations used to establish setpoint for degraded voltage relays used input higher than Technical Specification Bases B 3.3.8
- CR-RBS-2001-0258, Part 21 report by Asea Brown Boveri applicable to River Bend Station
- CR-RBS-2001-0266, errors in drawings found during development of a temporary alteration for circulation water pumps
- CR-RBS-2001-0933, as-left specifications in surveillance procedures lower than allowed in the Technical Requirements Manual
- CR-RBS-2001-1435, loss of Division II power followed by Division II emergency diesel generator automatic start and immediate restoration of power to the bus

.2 <u>High Pressure Core Spray System Walkdown</u>

On February 14, 2002, the inspectors performed a partial system walkdown of the high pressure core spray system while the reactor core isolation cooling system was out of service for planned maintenance. The inspectors reviewed System Operating Procedure SOP-0030, “High Pressure Core Spray,” Revision 19, to determine the correct system lineup. Then the inspectors walked down critical portions of the system to identify any discrepancies between the existing equipment lineup and the correct lineup.

.3 Reactor Core Isolation Cooling System Walkdown

On March 8, 2002, the inspectors performed a partial system walkdown of the reactor core isolation cooling system which was recently returned to service following maintenance. The inspectors reviewed System Operating Procedure SOP-0035, "Reactor Core Isolation Cooling System," Revision 21, to determine the correct system lineup. Then the inspectors walked down critical portions of the system to identify any discrepancies between the existing equipment lineup and the correct lineup.

.4 Division II Emergency Diesel Generator Walkdown

On March 20, 2002, the inspectors performed a partial system walkdown of the Division II emergency diesel generator while the Division I emergency diesel generator was out-of-service for corrective maintenance. The inspectors reviewed System Operating Procedure SOP-0053, "Standby Diesel Generator and Auxiliaries," Revision 34, to determine the correct system lineup. Then the inspectors walked down critical portions of the system to identify any discrepancies between the existing equipment lineup and the correct lineup.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

Throughout the period the inspectors toured the following plant areas important to reactor safety to observe conditions related to: (1) licensee control of transient combustibles and ignition sources; (2) the material condition, operational lineup, and operational effectiveness of fire protection systems, equipment and features; and (3) the material condition and operational status of fire barriers used to prevent fire damage or fire propagation.

- Review of Hot Work Permit for work on Division II Main Steam Positive Leakage Control System Compressor Seal Water Makeup Isolation Valve, SWP-SOV220B, on January 18, 2002
- High Pressure Core Spray System Pump Room, Fire Zone AB-2/Z-1, on February 14, 2002
- Division I Remote Shutdown Panel Room, Fire Zone C-16, on February 14, 2002
- Standby Switchgear Room 1A, Fire Zone C-15, on March 8, 2002
- Reactor Core Isolation Cooling pump room, Fire Zone Z-1 and Z-2, on March 8, 2000

- Reactor Recirculation Pump Motor Generator Building, Fire Area MG-1, on March 9, 2002

The inspectors reviewed the following documents during the fire protection inspections:

- Pre-Fire Strategy Book
- USAR Section 9A.2, “Fire Hazards Analysis”
- River Bend post-fire safe shutdown analysis
- Fire Protection Procedure FPP-0095, “Fire Extinguisher Inspection and Maintenance,” Revision 07
- Abnormal Operating Procedure AOP-0052, “Fire Outside the Main Control Room in Areas Containing Safety Related Equipment,” Revision 10

The inspectors completed Temporary Instruction 2515/146, "Hydrogen Storage Locations," and verified that River Bend Station storage facilities were in accordance with National Fire Protection Association 50A, "Standard for Gaseous Hydrogen Systems at Consumer Sites."

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors conducted a periodic flooding assessment to verify that the licensee’s flooding mitigation plans and equipment were consistent with design requirements and risk analysis assumptions. The inspectors conducted a walkdown of the high pressure core spray pump room on February 22, 2002. Specifically, the inspectors examined: (1) sealing surfaces of watertight doors, (2) sealing of equipment below design flood level, (3) sealing of penetrations in floors and walls, (4) operable sump pumps and level alarm circuits, (5) interconnections with common drain systems, and (6) sources of potential internal flooding from plant systems. The inspectors reviewed the following documents during the inspection:

- USAR Section 3.4.1, “Flood Protection”
- G13.18.12.3*15, “Internal Flooding Screening Analysis”
- G13.2.3 PN-317, “Max Flood Elevations for Moderate Energy Line Cracks in Cat I Structures”

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

On March 25, 2002, the inspectors observed a simulator evaluation of an operating crew, as part of the operator requalification training program, to assess licensed operator performance and the training evaluator's critique. The inspectors reviewed Simulator Training Scenario, RBS-1-SIM-SMS-00614.03, "Main Turbine Trip, Anticipated Transient Without a Scram with Standby Liquid Control System Failure," dated January 13, 2000. Emphasis was placed on observing weekly evaluation exercises of high risk licensed operator actions, operator activities associated with the emergency plan, and lessons learned from industry and plant experiences. In addition, the inspectors compared simulator control panel configurations with the actual control room panels for consistency, including recent modifications implemented in the plant.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

.1 Periodic Evaluation Reviews

The inspectors reviewed the licensee's report documenting the performance of the last Maintenance Rule periodic effectiveness assessment. This periodic evaluation covered the period from January 1 to December 31, 2000.

The inspectors verified that the licensee's program had monitored risk-significant functions associated with structures, systems, and components using reliability and unavailability criteria. Additionally, the performance of nonrisk-significant functions were monitored using plant level criteria.

The inspectors reviewed the conclusions reached by the licensee with regard to the balance of reliability and unavailability for specific maintenance rule functions. This review was conducted by examining the licensee's evaluation of all risk-significant functions that had exceeded performance criteria during the evaluation period.

The inspectors also examined the licensee's evaluation of program activities associated with the placement of maintenance rule program risk-significant functions in Categories (a)(1) or (a)(2). Additionally, the inspectors reviewed the periodic evaluation

conclusions reached by the licensee for the following systems: diesel generators, standby service water, reactor core isolation cooling, service water cooling, and high pressure core spray.

.2 Identification and Resolution of Problems

The inspectors evaluated the use of the corrective action system within the maintenance rule program for issues identified in the top 15 risk significant systems. This review was accomplished by the examination of a sample of the condition reports, maintenance action items, maintenance rule expert panel meeting minutes, and other documents listed in the attachment. The purpose of this review was to establish that the corrective action program was entered at the appropriate threshold for the purposes of:

- Implementation of the corrective action process when a performance criterion was exceeded;

- Correction of performance-related issues or conditions identified during the periodic evaluation; and

- Correction of generic issues or conditions identified during programmatic surveillances, audits, or assessments.

The inspectors verified that the identification of problems and implementation of corrective action was acceptable.

.3 Maintenance Rule Implementation

The inspectors reviewed structure, system, or component (SSC) performance problems to assess the effectiveness of the licensee's maintenance efforts for SSCs scoped under the licensee's maintenance rule program. The inspectors verified the licensee's implementation of the maintenance rule (10 CFR 50.65) for the performance problems reviewed by answering the following questions: (1) was the SSC scoped for monitoring in accordance with 10 CFR 50.65; (2) was the SSC assigned the proper safety significance; (3) were the problems characterized properly; (4) as a result of the problems, was the SSC assigned the proper classification under 10 CFR 50.65; and (5) were the appropriate performance criteria established for the SSC or, when necessary, were appropriate goals set and corrective actions taken to restore the SSC status under the maintenance rule. The following performance problems were evaluated:

- CR-RBS-2001-1415, reactor feed Pump A high bearing temperature during startup from Refueling Outage-10

- CR-RBS-2001-1558, reassignment of containment airlocks as separate maintenance rule system - removal from "virtual" system "Primary Containment Integrity"

- CR-RBS-2001-0232, reevaluate maintenance rule functional failure determination for two suppression pool cleanup system condition reports: CR-RBS-1999-0381 and CR-RBS-1999-1542

- CR-RBS-2002-0139, as-found leak rate for standby service water Valve SWP-AOV599 (Station Blackout Valve) control air system out of tolerance

- CR-RBS-2002-0376, Division II residual heat removal heat exchanger performance test

The following documents were reviewed as part of this assessment:

- NUMARC 93-01, Revision 2, Nuclear Energy Institute Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants

- River Bend maintenance rule function list

- River Bend maintenance rule performance criteria list

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed maintenance activities to verify the performance of assessments of plant risk related to planned and emergent maintenance work activities. The inspectors verified: (1) the adequacy of the risk assessments and the accuracy and completeness of the information considered; (2) management of the resultant risk and implementation of work controls and risk management actions; and (3) effective control of emergent work, including prompt reassessment of resultant plant risk.

.1 Risk Assessment and Management of Risk

On a routine basis, the inspectors verified performance of risk assessments, in accordance with Administrative Procedure ADM-096, “Risk Management Program Implementation and On-Line Maintenance Risk Assessment,” Revision 01, for planned maintenance activities and emergent work involving SSCs within the scope of the maintenance rule. Specific work activities evaluated included planned and emergent work for the weeks of February 24 and March 11 and 18, 2002.

.2 Emergent Work Control

During emergent work, the inspectors verified that the licensee took actions to minimize the probability of initiating events, maintained the functional capability of mitigating systems, and maintained barrier integrity. The inspectors also reviewed the emergent

work activities to ensure the plant was not placed in an unacceptable configuration. Specific emergent work activities evaluated included:

- Replace Division I outboard main steam line isolation logic Relay B21H-K7J on January 18, 2002
- Troubleshoot and rework solenoid operated control valves for standby service water Valve SWP-AOV599 (Station Blackout Valve) on January 24, 2002
- Main turbine electrohydraulic control system -22 Vdc power supply replacement on February 12, 2002

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions and Events (71111.14)

a. Inspection Scope

Small Fire in Division I Emergency Diesel Generator Exhaust Hood Shroud

The inspectors reviewed personnel performance following a small “incipient stage” fire on the Division I emergency diesel generator exhaust hood shroud on March 20, 2002. The inspectors interviewed the fire brigade leader. The inspectors also reviewed Abnormal Operating Procedure AOP-0052, “Fire Outside the Main Control Room in Areas Containing Safety Related Equipment,” Revision 10, used by the control room operators during the event and Emergency Implementing Procedure EIP-2-001, “Classification of Emergencies,” Revision 11. The inspectors evaluated the initiating causes of the event as documented in CR-RBS-2002-0450. In addition, the inspectors reviewed operator logs to determine what occurred and that operators responded in accordance with plant procedures and training.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed five operability evaluations performed by the licensee for risk significant systems to determine that the operability was justified, such that availability was assured, and no unrecognized increase in risk has occurred. Specific areas evaluated included: (1) the technical adequacy of the evaluation; (2) whether other existing degraded conditions were considered; and (3) if operability was based on compensatory measures, were these measures in place and would they work. The

inspectors also reviewed Nuclear Procedure RBNP-078, “Operability Determinations,” Revision 6.

- Technical Specification 3.1.7.B.1, standby liquid control system, restoration following maintenance on standby liquid control Pump B on January 4, 2002
- Technical Specification 3.5.3.A.1, high pressure core spray system while reactor core isolation system was out of service on February 14, 2002
- Technical Specification 3.5.3, reactor core isolation cooling system, restoration following maintenance on March 8, 2002
- Technical Specification 3.5.3, reactor core isolation cooling system, return to service during startup from refueling outage on October 11, 2001, reviewed March 11, 2002
- CR-RBS-2002-0376, Division II residual heat removal heat exchanger performance test performed March 4, 2002, reviewed March 18, 2002

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (IP 71111.16)

a. Inspection Scope

An operator workaround is defined as a degraded or nonconforming condition that complicates the operation of plant equipment and is compensated for by operator action. On January 23, 2002, the inspectors reviewed the temporary line-up to set up a feed and bleed on the Division I emergency diesel generator jacket cooling water system to determine if the functional capability of the emergency diesel generator or human reliability in responding to an initiating event such as a loss of off-site power was affected. Specifically, the inspectors evaluated the effect of this operator workaround on the operators ability to implement abnormal or emergency operating procedures.

As part of the inspection, the inspectors reviewed the following documents:

- CR-RBS-2002-0112, diesel fuel biocide additive added to Division I emergency diesel generator jacket cooling water system
- System Operating Procedure SOP-0053, “Standby Diesel Generator and Auxiliaries,” Revision 34, change notice “to provide guidance for performing feed and bleed of jacket cooling water standpipe,” dated January 21, 2002

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the postmaintenance testing requirements specified for the Maintenance Action Items (MAI) listed below to ensure that testing activities were adequate to verify system operability and functional capability:

- MAI 319482, rework and adjust packing for standby liquid control Pump B
- MAI 333327, refurbish Division II main steam positive leakage control system compressor seal water makeup isolation Valve SWP-SOV220B
- MAI 348233, troubleshoot and rework solenoid operated control valves for standby service water Valve SWP-AOV599 (Station Blackout Valve)
- MAI 354330, inspect standby liquid control Train A squib valve continuity monitor relay
- MAI 354905, in-service-test of reactor core isolation cooling system vacuum breaker Valve E51-MOVF077
- MAI 354976, replace Division I outboard main steam line isolation logic Relay, B21H-K7J
- MAI 352702, replace the valve operator screw spline in the trip throttle valve operator of the reactor core isolation cooling system turbine

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors verified, by witnessing and reviewing test data, that selected risk significant systems and component surveillance tests met Technical Specification, USAR, and procedure requirements. The inspectors ensured that surveillance tests demonstrated that the systems were capable of performing their intended safety functions and provided operational readiness. The inspectors specifically evaluated surveillance tests for preconditioning, clear acceptance criteria, range, accuracy and current calibration of test equipment and verified that equipment was properly restored at the completion of the testing. The inspectors reviewed or observed the following surveillance tests and maintenance calibration procedures:

- STP-201-0201, “Standby Liquid Control Valve Continuity and Valve Position,” Revision 8, performed January 3, 2002
- STP-201-6310, “Standby Liquid Control Pump and Valve Operability Test,” Revision 2, performed January 4, 2002
- STP-256-6302, “Division II Standby Service Water Quarterly Valve Operability Test,” Revision 11, performed on January 15, 2002
- MCP-4303, “Functional Test of Standby Cooling Tower Station Blackout Division I Standby Service Water Return Valve and Valve Logic (SWP-AOV599),” Revision 0, performed on January 24, 2002
- STP-209-6310, “RCIC Quarterly Pump and Valve Operability Test,” Revision 17, performed on February 16, 2002
- STP-205-6301, “LPCS Quarterly Pump and Valve Operability Test,” Revision 12, performed on March 19, 2002

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

.1 Division 1 Main Steam Line Outboard Isolation Logic

On January 18, 2002, the inspectors observed the installation of the temporary modification to the Division I main steam line isolation valve isolation logic to allow for replacement of Division I outboard main steam line isolation logic Relay B21H-K7J. Specifically the inspectors: (1) reviewed the temporary modification against the system's design basis documentation, including the USAR and Technical Specifications; (2) verified that the installation of the temporary modification was consistent with the modification documents; (3) verified that adequate compensatory measures were in place for operators to take manual actions to close the outboard main steam line isolation valves had an automatic isolation condition occurred, and (4) reviewed the postinstallation test results to confirm that the actual impact of the temporary modification on the affected system had been adequately verified.

.2 Reactor Recirculation System Pumps Seal Purge Supply

On March 13, 2002, the inspectors observed the installation of the temporary modification to the control rod drive hydraulic system seal purge supply to the reactor recirculation pumps, in accordance with Temporary Procedure TP-99-0009, “Operation of Temporary Jumper for Supplying Seal Purge Water to reactor Recirculation Pumps,” Revision 00A. Specifically the inspectors: (1) reviewed the temporary modification

against the system design basis documentation, including the USAR and Technical Specifications; (2) verified that the installation of the temporary modification was consistent with the modification documents; and (3) reviewed the postinstallation test results to confirm that the actual impact of the temporary modification on the affected system had been adequately verified.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY
Cornerstone: Occupational Radiation Safety

2OS2 As Low As Reasonably Achievable (ALARA) Planning and Controls (71121.02)

a. Inspection Scope

The inspector interviewed radiation workers and radiation protection personnel to determine if low dose waiting areas were utilized, personnel were maintaining doses ALARA, radiation workers were receiving appropriate job supervision and radiation protection coverage.

The inspector attended a weekly ALARA Committee meeting which discussed various changes in scheduled work activities and associated dose estimates.

The inspector reviewed a summary of ALARA and radiological worker performance condition reports written since September 2001. The following condition reports were reviewed in detail:

CR-RBS-2001-1073	CR-RBS-2001-1289	CR-RBS-2002-0216
CR-RBS-2001-1147	CR-RBS-2001-1325	CR-RBS-2002-0325
CR-RBS-2001-1148	CR-RBS-2001-1551	CR-RBS-2002-0326
CR-RBS-2001-1149	CR-RBS-2002-0073	CR-RBS-2002-0338
CR-RBS-2001-1199	CR-RBS-2002-0195	
CR-RBS-2001-1246	CR-RBS-2002-0199	

The following items were reviewed and compared with regulatory requirements to determine whether the licensee had an adequate program to maintain occupational exposures ALARA:

- ALARA program procedures
- Plant collective exposure history for the past 3 years, current exposure trends, and 3-year rolling average dose information
- Five radiation work permit packages, which included pre- and postoutage ALARA reviews, for work activities resulting in the highest collective during

Refuel Outage 10 (RF-10]): RWP 2001-1800-01/08, “Disassemble/Reassemble and Refuel Reactor for RF-10"; RWP 2001-1450/01-1950, “Scaffolding Requests for RF-10"; RWP 2001-1933, “ISI Welds”; RWP 2001-1917, “Repair Undervessel Carousel and Replace/Rebuild/Leak Test 15 CRDM’s - including all support work”; and RWP 2001-1912, “Remove/Replace 16 SRV’s”

- Use of engineering and administrative controls to achieve dose reductions, to include temporary shielding and scheduling of work activities
- RF-10 Post Outage Report; ALARA Planning and Controls Focus Area Self Assessment (January 7-24, 2002); Quality Assurance Audit of Maintenance/ Planning and Scheduling (QA-10-2001-RBS-1); Quality Assurance Surveillance Report QS-2001-RBS-0038; and Quality Assurance Surveillance Report QS-2001-RBS-0040
- Hot spot tracking and reduction program
- Overall facility source term reduction plan
- Radiological work planning and interfaces between various departments
- Declared pregnant worker dose monitoring controls and exposures
- ALARA committee meeting minutes since September 2001

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

.1 Unplanned Power Changes and Safety System Unavailability Performance Indicator Verification

The inspectors verified the accuracy and completeness of the data used to calculate and report performance indicator data for the third and fourth quarter of 2001. The inspectors used Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, as guidance and interviewed licensee personnel responsible for compiling the information. The following performance indicators were reviewed:

- Unplanned power changes per 7000 critical hours
- Safety system unavailability, emergency AC power systems

- Safety system unavailability, heat removal system

b. Findings

No findings of significance were identified.

.2 (Closed) Unresolved Item 50-458/0011-05: review of the inclusion of alternate decay heat removal system in performance indicator data. The issue involved the counting of unavailability data during periods of time when the alternate decay heat removal system was being used in place of one train of residual heat removal as permitted by Technical Specifications. The inspectors reviewed the revised licensee procedures for accounting for alternate decay heat removal system unavailability and found that their proposed method was in accordance with guidance provided by Revision 2 of NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," dated November 19, 2001.

4OA6 Management Meetings

Exit Meetings

The inspector presented the inspection results to Mr. Dwight Mims, General Manager - Plant Operations, and other members of licensee management at the conclusion of the Evaluations of Changes, Tests, or Experiments inspection on January 10, 2002. The licensee acknowledged the findings presented.

The inspector presented the inspection results to Mr. Paul Hinnenkamp, Vice President, and other members of licensee management at the conclusion of the ALARA inspection March 1, 2002. The licensee acknowledged the findings presented.

The inspectors presented the inspection results to Mr. Dwight Mims, General Manager - Plant Operations, and other members of licensee management at the conclusion of the Maintenance Rule inspection on March 15, 2002. The licensee acknowledged the findings presented.

The inspectors presented the inspection results to Mr. Paul Hinnenkamp, Vice President, and other members of licensee management at the conclusion of the resident inspection period on April 4, 2001.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. While the licensee identified some reviewed material as proprietary, no proprietary information is included in this report.

4OA7 Licensee Identified Violations

The following finding of very low safety significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a noncited violation:

If you deny this noncited violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, 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; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the River Bend Station facility.

NCV Tracking Number	Requirement Licensee Failed to Meet
50-458/2001-07-01	Technical Specification 5.7.1.b states, in part, that any individual or group of individuals permitted to enter a high radiation area shall be provided with a radiation monitoring device that continuously integrates the radiation dose rate and alarms when a preset integrated dose is received. On October 5, 2001, the licensee identified that an individual working in a high radiation area was unable to hear his electronic dosimeter alarming on the dose accumulated alarm. Because the individual was unable to respond to the aural alarm, the device was inadequate to fulfill its Technical Specification required function. This violation is being treated as a noncited violation and is in the licensee's corrective action program as CR-RBS-2001-1325. The safety significance of this finding was determined to be very low by the occupational radiation safety significance determination process because there was no overexposure, no substantial potential for overexposure, and no impact on the ability to assess dose.

ATTACHMENT

SUPPLEMENTARY INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

B. Allen, Manager, Emergency Preparedness
M. Bakarich, Manager, Security
W. Brian, Director, Engineering
C. Bush, Superintendent, Operations
J. Fowler, Manager, Quality Assurance
J. Heckenberger, Manager, Planning and Scheduling
P. Hinnenkamp, Vice President-Operations
R. King, Director, Nuclear Safety Assurance
J. Leavines, Manager, Nuclear Safety and Regulatory Affairs
F. Lenox, Technical Specialist IV, Maintenance Rule Coordinator
T. Lynch, Manager, System Engineering
W. Mashburn, Manager, Engineering Programs
J. McGhee, Manager, Maintenance
D. Mims, General Manager
K. Polson, Manager, Operations
P. Sicard, Manager, Safety and Engineering Analysis
W. Trudell, Manager, Corrective Action and Assessment

ITEMS OPENED AND CLOSED

Opened and Closed

50-458/2001-07-01	NCV	Inaudible alarm for personal electronic dosimeter used in a high radiation area (Section 4OA7)

Closed

50-458/0011-05	URI	Review of the inclusion of alternate decay heat removal system in performance indicator data (Section 4OA1)

DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings:

Condition Reports:

CR-RBS-1995-0239	CR-RBS-2001-0740	CR-RBS-2001-1404
CR-RBS-2000-2175	CR-RBS-2001-0809	CR-RBS-2001-1405
CR-RBS-2001-0139	CR-RBS-2001-0810	CR-RBS-2001-1421
CR-RBS-2001-0193	CR-RBS-2001-0822	CR-RBS-2001-1473
CR-RBS-2001-0197	CR-RBS-2001-0902	CR-RBS-2001-1495
CR-RBS-2001-0201	CR-RBS-2001-0929	CR-RBS-2001-1496
CR-RBS-2001-0202	CR-RBS-2001-0995	CR-RBS-2001-1510
CR-RBS-2001-0204	CR-RBS-2001-0999	CR-RBS-2001-1572
CR-RBS-2001-0299	CR-RBS-2001-1014	CR-RBS-2001-1581
CR-RBS-2001-0391	CR-RBS-2001-1078	CR-RBS-2001-1606
CR-RBS-2001-0403	CR-RBS-2001-1154	CR-RBS-2001-1614
CR-RBS-2001-0422	CR-RBS-2001-1169	CR-RBS-2001-1617
CR-RBS-2001-0475	CR-RBS-2001-1178	CR-RBS-2001-1651
CR-RBS-2001-0518	CR-RBS-2001-1209	CR-RBS-2002-0108
CR-RBS-2001-0557	CR-RBS-2001-1219	CR-RBS-2002-0113
CR-RBS-2001-0674	CR-RBS-2001-1254	CR-RBS-2002-0287
CR-RBS-2001-0695	CR-RBS-2001-1260	CR-RBS-2002-0300
CR-RBS-2001-0697	CR-RBS-2001-1302	CR-RBS-2002-0316
CR-RBS-2001-0710	CR-RBS-2001-1345	CR-RLO-2001-0008
CR-RBS-2001-0724	CR-RBS-2001-1391	

Procedures:

DOCUMENT	TITLE	REVISION
ADM-0023	Conduct of Maintenance	16
DC-121	Maintenance Rule	0
EDG-PR-001	Maintenance Rule and PI/WANO Unavailability Monitoring Program Administration in System Engineering	8
LI-101	10 CFR 50.59 Review Program	1

LI-102	Corrective Action Process	1

Miscellaneous Documents:

Design Specification 22A3124	Reactor Core Isolation Cooling System, Revision 5
G-LD-9-033	General Electric Letter Regarding RCIC Engineered Safety Feature Classification, Dated January 20, 1989
GE-NE-A41-00069-6.8	Analysis Basis Document, Section 6.8, Control Rod Drop Accident, Revision 0, Dated September 4, 1997
MAI 351244	Test/Rework Containment Annulus Mixing Fan 11B Breaker, EJS-SWG2B-ACB064, per Procedure CMP-1023
NEDE-24011-P-A-11	General Electric Standard Application for Reactor Fuel (GESTAR II), Revision 13, Dated August 20, 1996

TITLE	DATE
Maintenance Rule Periodic Assessment Report 2000	09/13/2001
Entergy Nuclear Southwest Maintenance Rule Desk Top Guide	11/17/1997
River Bend Station QA Surveillance Report QS-2002-RBS-005	02/28/2002
Self-Assessment, Maintenance Rule-Second Phase	01/06/2001
Self-Assessment, Maintenance Rule-Functional Failure Determination	10/04/2000
System Performance Indicators	03/09/2002
Supplier Document Data Form File No. 3244.700-041-082B	02/08/2000

Safety Evaluations:

ER-RB-1999-0726-000
ER-RB-1999-0732-000
ER-RB-1999-0748-000
ER-RB-2000-0370-000
ER-RB-2000-0550-000
ER-RB-2000-0551-000
ER-RB-2000-0691-000
ER-RB-2001-0134-000

Safety Evaluation Screenings:

ER-RB-2000-0184-000	ER-RB-2000-0695-000
ER-RB-2000-0330-000	ER-RB-2001-0639-000
ER-RB-2000-0339-000	ER-RB-2001-0684-000
ER-RB-2000-0649-000	ER-RB-2001-0780-000
ER-RB-2000-0682-000	ER-RB-2001-0807-000

Meeting Minutes-Maintenance Rule Expert Panel (listed per date of meeting/Meeting No.):

07/21/2000 (2000-001)	05/11/2001 (2001-001)	02/18/2002 (2002-001)
12/05/2000 (2000-002)	06/08/2001 (2001-002)	
	12/18/2001 (2001-003)	

LIST OF ACRONYMS AND INITIALISMS USED

ALARA	as low as is reasonably achievable
CFR	Code of Federal Regulations
CR-RBS	River Bend Station Condition Report
MAI	maintenance action item
NCV	noncited violation
NEI	Nuclear Energy Institute
NRC	U. S. Nuclear Regulatory Commission
RF-10	Refueling Outage 10
SSC	structure system or component
URI	unresolved item
USAR	Updated Safety Analysis Report