



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**

REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064

August 4, 1999

EA 99-158

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. 50-458/99-07**

Dear Mr. Edington:

This refers to the inspection conducted on May 30 through July 10, 1999, at the River Bend Station facility. The enclosed report presents the results of this inspection.

Based on the results of this inspection, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. This violation, which is described in the enclosed report, is being treated as a noncited violation (NCV), consistent with Appendix C of the Enforcement Policy. If you contest the violation or severity level of the NCV, 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, Region IV; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the River Bend Station facility.

In addition, two apparent violations were identified and are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. The first apparent violation involved inadequate work instructions that resulted in improper maintenance on the Division I emergency diesel generator. The second apparent violation involved exceeding the Technical Specification 3.8.1 limiting condition for operation regarding the emergency diesel generators. In accordance with NRC policy, no Notice of Violation is presently being issued for these inspection findings. In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review.

An acceptable date to conduct an open predecisional enforcement conference to discuss these apparent violations is being arranged. The decision to hold a predecisional enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference is being held to obtain information to enable the NRC to make an enforcement decision, such as a common understanding of the facts, root causes, missed opportunities to identify the apparent violation sooner, corrective actions, significance of the issues, and the need for lasting and effective corrective action. In addition,

this is an opportunity for you to point out any errors in our inspection report and for you to provide any information concerning your perspectives on: (1) the severity of the violations, (2) the application of the factors that the NRC considers when it determines the amount of a civil penalty that may be assessed in accordance with Section VI.B.2 of the Enforcement Policy, and (3) any other application of the Enforcement Policy to this case, including the exercise of discretion in accordance with Section VII.

You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding these apparent violations is required at this time.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Sincerely,

/s/

Ken E. Brockman, Director  
Division of Reactor Projects

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

Enclosure:  
NRC Inspection Report No. 50-458/99-07

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket No.: 50-458  
License No.: NPF-47  
Report No.: 50-458/99-07  
Licensee: Entergy Operations, Inc.  
Facility: River Bend Station  
Location: 5485 U.S. Highway 61  
St. Francisville, Louisiana  
Dates: May 30 through July 10, 1999  
Inspectors: N. P. Garrett, Resident Inspector  
M. E. Murphy, Senior Resident Inspector (Acting)  
Approved By: David N. Graves, Chief, Project Branch B  
Attachment: Supplemental Information

## EXECUTIVE SUMMARY

### River Bend Station NRC Inspection Report 50-458/99-07

This routine announced inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a 6-week period of resident inspection.

#### Operations

- The conduct of operations was generally professional and safety conscious (Section O1.1).
- The plant startup was well controlled. Postmodification and surveillance tests were properly conducted and well coordinated. The control room supervisor provided good direction to the crew during the reactor startup and poststartup testing (Section O1.2).
- The control room supervisor maintained good command and control in response to an onsite fire alarm caused by an overheated battery charger connected to a forklift in the main warehouse. The fire brigade responded in a timely manner (Section O1.3).

#### Maintenance

- The conduct of maintenance and surveillances was generally thorough and professional (Section M1.1).
- Plant material condition was generally good. Material condition concerns included an out-of-service control building chiller. Material improvements included the replacement of failed fuel assemblies and the repair and modification of the main steam isolation valve poppet valves (Section M2.1).
- An apparent violation of 10 CFR Part 50, Appendix B, Criterion V, was identified regarding failure to provide adequate work instructions for maintenance of the Division I emergency diesel generator. This apparent violation is in the licensee's corrective action program as Condition Report CR 99-0366. The issue is being tracked by EA 99-158 (Section M8.1).
- An apparent violation of Technical Specifications 3.8.1.b and -c was identified regarding Divisions I and II emergency diesel generator inoperability. As a result of improper maintenance on the Division I emergency diesel generator fuel oil pump coupling, the Division I emergency diesel generator was inoperable for approximately 30 days and 4 hours. During this period, the Division II emergency diesel generator was removed from service for approximately 26 hours. This apparent violation is in the licensee's corrective action program as Condition Report CR 99-0366. The issue is being tracked by EA 99-158 (Section M8.1).

### Engineering

- The licensee, although unable to determine a single root cause, identified multiple contributing factors for the failure of seven fuel elements during Fuel Cycle 8. The investigation and analyses performed as a result of the fuel failures were extensive and comprehensive (Section E2.1).
- The inspectors conducted a review of the Year 2000 activities and documentation using Temporary Instruction 2515/141, "Review of Year 2000 (Y2K) Readiness of Computer Systems at Nuclear Power Plants." Conclusions regarding the Year 2000 readiness of this facility are not included in this summary. The results of this review will be combined with reviews of Year 2000 programs at other plants in a summary report to be issued at a later date (Section E8.1).
- In July 1997, the licensee identified, and reported in Licensee Event Report 50-458/97-004, that proper design information for the Division III battery had not been used to determine the surveillance acceptance criteria. This was a violation of Technical Specification 5.4.1. This Severity Level IV violation is being treated as a noncited violation in accordance with Appendix C of the NRC Enforcement Policy. This violation is addressed in the licensee corrective action program as Condition Reports 97-1079 and 97-1111 (Section E8.3).

### Plant Support

- Licensee personnel were observed to be properly implementing radiological control practices and procedures in the field (Section R4.1).
- Emergency preparedness facilities were properly maintained (Section P2.1).
- Protected area illumination levels, maintenance of the isolation zone around the protected area barriers, and the status of the security secondary power supply equipment were properly maintained (Section S1.1).

## **Report Details**

### **Summary of Plant Status**

At the beginning of the inspection period the plant was in Operational Mode 5 for Forced Outage 99-01. The plant entered Mode 2 on June 29 and was synchronized to the grid on July 3. At the end of the period, the plant was at 80 percent power for rod sequence exchange.

## **I. Operations**

### **O1 Conduct of Operations**

#### **O1.1 General Comments (71707, 93702)**

The inspectors used Inspection Procedure 71707 to conduct frequent reviews of ongoing plant operations. The conduct of operations was generally professional and safety conscious. Interviews with various operators confirmed that they were knowledgeable of system conditions and were observed to be properly responsive to recurring alarms.

#### **O1.2 Plant Startup**

##### **a. Inspection Scope ( 71707)**

The inspectors observed the reactor startup to criticality on June 29 and postmodification and surveillance testing during the approach to full power.

##### **b. Observations and Findings**

The plant startup was well controlled and conducted in accordance with procedural requirements. The control room supervisor provided appropriate and timely briefings during the evolution. Criticality was achieved consistent with the estimated critical rod position predicted by the reactor engineer.

The inspectors observed portions of the turbine control valve postmodification tests. These tests were conducted in accordance with Procedures OSP-0102, "Turbine Valve Testing," and STP-508-4514, "Turbine Stop Valve Channel Functional Test (C71-N006) Channels A through H." The pre-test briefings were properly conducted. Coordination among operations, instrumentation and controls, and engineering personnel was effectively established. Briefings were held for each power level at which portions of the tests were conducted. Coordination during the conduct of the tests was excellent. The tests were completed satisfactorily.

##### **c. Conclusions**

The plant startup was well controlled. Postmodification and surveillance tests were properly conducted and well coordinated. The control room supervisor provided good direction to the crew during the reactor startup and poststartup testing.



### O1.3 Operations Response to Fire Alarm

#### a. Inspection Scope (93702)

The inspectors observed the control room response to an onsite fire alarm.

#### b. Observations and Findings

The inspectors observed control room personnel response to the report of smoke in the main warehouse. The fire alarm was sounded, the fire brigade was summoned, and all plant personnel were advised of the reported condition. The required notifications were made in a timely manner. The fire brigade leader promptly informed the control room of his observations when he reached the warehouse. The cause of the alarm was an overheated battery charger attached to a forklift. The fire brigade completed a thorough search for other signs of fire and reported all clear. The control room announced all clear for the benefit of plant personnel.

#### c. Conclusions

The control room supervisor maintained good command and control in response to an onsite fire alarm caused by an overheated battery charger connected to a forklift in the main warehouse. The fire brigade responded in a timely manner.

## 02 Operational Status of Facilities and Equipment

### 02.1 Engineered Safety Feature System Walkdowns

#### a. Inspection Scope (71707)

The inspectors walked down accessible portions of the following safety-related systems:

- High Pressure Core Spray
- Low Pressure Core Spray
- Residual Heat Removal, Trains A, B, and C
- Reactor Core Isolation Cooling
- Divisions I, II, and III Emergency Diesel Generators
- Divisions I, II, and III Switchgear and Battery Rooms
- Standby Gas Treatment System Trains A and B
- Standby Service Water System Trains A and B

The systems were found to be properly aligned for the plant conditions and generally in good material condition.

During plant tours, housekeeping in readily accessible areas was observed to be good.

Clearance Orders: The inspectors observed or walked down the following safety-related clearance orders:

- RB-99-0923, EGA-C2A EGA Compressors (Division II EDG)
- RB-99-0932, HVR-UC1A Blower (Division I Unit Cooler)

The inspectors verified the restoration of the following safety-related clearance order following maintenance:

- RB-99-1032, HVF-FLT2B Filter

No problems were noted during the review of the clearance orders.

## **08 Miscellaneous Operations Issues (92901)**

### **08.1 Violation Closure**

The inspectors performed an in-office review of outstanding violations in the operations area. The Severity Level IV violation listed below was issued in a Notice of Violation prior to March 11, 1999. On this date, the NRC changed the policy for treatment of Severity Level IV violations (Appendix C of the Enforcement Policy). Because this violation would have been treated as a noncited violation in accordance with Appendix C, it is being closed out in this report, consistent with the new Enforcement Policy for Severity Level IV violations. The inspectors verified that the licensee had included this violation in their corrective action (CA) program. The CA program reference for the violation is listed below. In addition, the violation already has a docketed response.

<b>Violation Number</b>	<b>Description</b>	<b>CA Program Reference</b>
50-458/9710-01	Procedure not established for corrective lenses for operations donning SCBA	CR 97-0873

Corrective action effectiveness reviews for selected violations will be accomplished as a routine part of the NRC's CA program inspections.

## **II. Maintenance**

### **M1 Conduct of Maintenance**

#### **M1.1 General Comments**

##### **a. Inspection Scope (61726, 62707)**

The inspectors observed all or portions of the following maintenance and surveillance activities:

- MAI 326464, Fuel Building Charcoal Filter 2B (Filter medium replacement)
- STP 209-6310, RCIC Pump Quarterly Operability and Flow Test, Revision 12
- STP 209-0601, RCIC Initiation Functional, Revision 10
- STP 209-0602, RCIC System Flow Test, Revision 9
- STP-050-0702, Refueling Outage Reactor Pressure Vessel Inservice Leakage Test, Revision 4
- STP-052-3701, Control Rod Scram Testing, Revision 14

b. Observations and Findings

The performance of maintenance and surveillances was generally thorough and professional.

**M2 Maintenance and Material Condition of Facilities and Equipment**

M2.1 Review of Material Condition During Plant Tours

a. Inspection Scope (62707)

During this inspection period, the inspectors conducted interviews and routine plant tours to evaluate plant material condition.

b. Observations and Findings

Overall plant material condition was good, with one exception. The following material condition problem was observed:

- HVK "C" Chiller Inoperable: On May 18, 1999, the "C" HVK chiller tripped following restoration of offsite power during emergency core cooling system testing. The chiller is required to continue operations following restoration of power. Troubleshooting efforts continued; however the chiller has remained inoperable during this period.

Material condition improvements included:

- Fuel Element Failures: During the outage, the licensee confirmed that seven fuel bundles contained leaking fuel pins. The licensee replaced the failed fuel elements with new fuel elements (see Section E2.1).
- Main Steam Isolation Valves: One of the eight main steam isolation valves failed the 18-month local leak rate test. Displaying a good questioning attitude, mechanical maintenance questioned the adequacy of using a single setscrew to

secure the poppet valve retaining nut to the poppet valve. Upon further investigation of the remaining valves, one poppet valve was identified in the early stages of seat failure. The method of securing the poppet valve nut to the poppet valve was modified from the use of a single setscrew to welding the poppet valve retaining nut to the poppet valve. This modification was completed for all main steam isolation valves. The licensee was assessing the need to disseminate this information to the industry.

c. Conclusions

Plant material condition was good. Material condition concerns included an out-of-service control building chiller. Material condition improvements include the replacement of the failed fuel assemblies and repair and modification to the main steam isolation valve poppet valves.

**M8 Miscellaneous Maintenance Issues (92902)**

- M8.1 (Closed) Unresolved Item (URI) 50-458/9903: Inoperable emergency diesel generator due to inadequate maintenance. On March 24, 1999, the Division I emergency diesel generator failed a one-hour surveillance test. After running for 55 minutes, the engine experienced load swings and was secured by the operator. The licensee identified that the engine-driven fuel oil booster pump had failed as the result of a taper pin dislodging from the drive side of the engine-driven fuel oil pump coupling. The licensee also identified that testing of the emergency diesel generator without reliance on a nonsafety-related function had not been performed.

The Division I diesel engine had been removed from service on February 23, 1999, for a planned maintenance outage to repair a shaft seal leak on the fuel oil pump. The maintenance was performed on February 24, 1999, using Work Package MAI 319116. The work package required disassembly of the engine-driven fuel oil pump coupling in order to repair the leak. The work package was completed and the diesel engine was returned to service following the outage on February 25, 1999, after successfully completing a one-hour surveillance test run of the diesel generator. On March 23, 1999, the next monthly Technical Specification Surveillance run was initiated. Approximately 55 minutes into the run, erratic generator load indications were observed and the diesel generator was tripped by the Unit Operator at 12:04 a.m. on March 24. The load swings were determined to be caused by the fuel pump drive coupling separating, resulting in loss of fuel to the engine.

The licensee initiated an investigation into the event and determined that the fuel oil pump coupling had been improperly reassembled. Specifically, the coupling had not been staked properly nor had Loctite 680, a compound utilized to increase the coupling bond shear strength, been applied as required by the vendor in Cooper-Enterprise Service Information Memo #363, step 10.2.

On March 25, 1999, the fuel pump coupling was reassembled in accordance with the vendor's requirements. The engine was started, tested satisfactorily, and declared operable.

Further review by the licensee determined that the work package under which the work was initially conducted, MAI 319116, did not provide direction to apply the Loctite 680 compound upon reassembly of the coupling. The planner that generated the work package had reviewed prior job packages that accomplished the same task, but all were deficient in the requirement to apply the Loctite 680 compound.

River Bend procedure, "Maintenance Planning Guideline", Revision 6. Section 6.5.9.5, states, in part, "Reference all procedures, vendor procedures, and design documents required to perform the work instructions and to return the . . . system . . . to operational or desired status."

The vendor manual contained Cooper-Enterprise Service Information Memo, S.I.M. 363, Revision 1, dated December 2, 19993, which states, in part, "Reports have been received from the field that the overspeed governor/fuel booster pump couplings have worked loose under certain operating conditions. Failure of this coupling will result in a loss of fuel oil pressure . . ." Step 10 of Service Information Memo states, "Install fuel pump drive couplings with Loctite 680."

The failure to provide adequate work instructions for reassembly of the fuel pump coupling is an apparent violation of 10 CFR Part 50, Appendix B, Criterion V (50-458/9907-01).

The engine is required to be able to operate a sufficient length of time to mitigate the consequences of an accident, and Surveillance Requirement 3.8.1.13 requires that the emergency diesel generators be able to operate for  $\geq 24$  hours. The diesel engine demonstrated that it was able to run only 1 hour and 55 minutes prior to failure of the fuel pump coupling and, as such, was inoperable from the time it was taken out of service for maintenance on February 23 until it was repaired and restored to operability on March 25, 1999. The total time the engine was inoperable was approximately 30 days and 4 hours. The maximum allowable outage time for a single emergency diesel generator is 72 hours.

During the period that the Division I emergency diesel generator was inoperable, the Division II emergency diesel generator was removed from service on two occasions for a total period of 25 hours and 54 minutes. With two required emergency diesel generators inoperable, the maximum time allowed to restore at least one of the diesels to an operable status was 2 hours.

The Division III emergency diesel generator, and/or systems to support the Division III emergency diesel generator, were also out of service for approximately 6 days and 11 hours during the period that the Division I diesel generator was out of service.

The failure to maintain the diesel generators operable consistent with the Technical Specification requirements is an apparent violation of Technical Specifications 3.8.1.b and -c (50-458/9907-02).

Upon failure of the Division I emergency diesel generator, immediate corrective actions were taken to ensure the operability of the Division II emergency diesel generator, including inspection of the fuel pump coupling. This was previously documented in NRC Inspection Report 50-458/99-03. Corrective actions to prevent recurrence were being generated and included updating vendor manuals, developing standard job plans for use on the engine-driven fuel pump coupling that will include the appropriate requirements, reviewing of proper pin staking techniques by maintenance personnel, and reviewing service information memoranda to determine the applicability of previous work on the emergency diesel generators.

This issue is in the licensee corrective action tracking system as Condition Report CR 99-0366. The issue is being tracked by EA 99-158.

During investigation of the diesel generator failure, the licensee also identified that appropriate testing of the diesel generator to start and operate without reliance on a nonsafety-related function had not been demonstrated. When the diesel is started, the nonsafety-related auxiliary direct current fuel oil pump normally starts to prime the fuel injectors. The licensee did not have documented evidence that the diesel engine would start without the aid of the auxiliary fuel oil pump. On April 23, 1999, the licensee performed a diesel generator start test with the auxiliary direct current fuel oil pump de-energized. The test was performed with the pump secured and the licensee concluded that the engine-driven fuel oil booster pump alone was sufficient to start the diesel engine.

### **III. Engineering**

#### **E2 Engineering Support of Facilities and Equipment (37551)**

##### **E2.1 Failed Fuel**

###### **a. Inspection Scope (37551)**

During Fuel Cycle 8, seven fuel element failures occurred. The inspector followed the licensee evaluation of the failures.

###### **b. Observations and Findings**

During Refueling Outage 8, the licensee confirmed that seven fuel element failures had occurred during cycle operations. An extensive root cause analysis was performed during the refueling outage. The licensee root cause analysis did not identify a single specific cause for the failures, but did identify multiple possible causes and contributing factors.

As each potential fuel element failure was identified, the licensee took prompt action to suppress the failures by inserting a control rod to minimize the potential damage. During the recent refueling outage, the seven potential failures were confirmed. Some of the fuel inspection findings were:

1. All of the failed rods were in new fuel bundles installed for Fuel Cycle 8 (HGE),
2. Six of the seven bundles were in symmetrical core cells,
3. All of the cladding perforations appeared to be due to cladding corrosion and related to the thermal effects of high Chalk River unidentified deposits (CRUD) loading,
4. The failed fuel rods had a heavy buildup of CRUD in clumpy formations,
5. The perforations occurred at approximately the 50-inch elevation on the fuel rods under heavy CRUD formations. This is a region which is typically at the end of the bulk boiling region within the bundles, and
6. All of the failed bundles were in the high-power core ring.

The licensee's root cause investigation covered plant chemistry history and controls, the CRUD deposit chemistry, core design and operation, comparison with other operating boiling water reactors, chemical intrusions, and cycle operating differences. The observations made included:

1. Use of different feedwater resins from previous fuel cycles,
2. Feedwater iron and copper content were higher than preceding fuel cycles,
3. Depleted zinc injection was used,
4. An extended control blade sequence exchange interval was used,
5. The core was operated in an extended operating domain using the maximum extended load line limit analysis. This operating domain allowed a higher rod line for the normal core flow,
6. At least two conductivity excursions occurred during the operating cycle. One of the excursions was long term, lasting 21 days, and
7. The fuel assembly CRUD chemical analysis revealed a high iron content.

The licensee did not determine a single cause for the clad perforations. However, the licensee fuel inspection team concluded that the fuel failures were caused by the extreme CRUD loading on the fuel bundles which reduced heat transfer. The reduction in heat transfer combined with high power operation resulted in cladding perforations.

The licensee corrective actions included:

1. Discharging all of the General Electric HGE bundles from the core and replacing them with new fuel assemblies,
2. Increasing chemistry monitoring and maintaining chemistry within closer tolerances. This included not using depleted zinc during Fuel Cycle 9,
3. Reducing iron and copper introduction to the reactor,
4. Not operating in the extended operating domain using the maximum extended load line limit analysis, and
5. Not introducing planned hydrogen water chemistry controls during Fuel Cycle 9.

The licensee could not determine a single specific root cause for the failure of the seven fuel elements during Fuel Cycle 8. The conclusions drawn indicated that the failures were related to conductivity excursions experienced during the fuel cycle, high power bundles in high power regions, and increased injection of metals into the reactor. The inspectors considered the corrective actions implemented prior to returning the plant to operation to be acceptable.

c. Conclusions

The licensee, although unable to determine a single root cause, identified multiple contributing factors for the failure of seven fuel elements during Fuel Cycle 8. The investigation and analyses performed as a result of the fuel failures were extensive and comprehensive.

**E8 Miscellaneous Engineering Issues (92903)**

E8.1 Year 2000 (Y2K) Readiness Review

a. Inspection Scope (TI 2514/141)

The inspectors conducted a review of the licensee's preparations for the Y2K transition.

b. Observation and Findings

The inspectors conducted a review of Y2K readiness activities and documentation using Temporary Instruction (TI) 2515/141, "Review of Year 2000 (Y2K) Readiness of Computer Systems at Nuclear Power Plants," dated April 13, 1999. The review addressed aspects of Y2K management planning, documentation, implementation planning, initial assessment, detailed assessment, remediation activities, Y2K testing and validation, notification activities, and contingency planning. The reviewers used



NEI/NUSMG 97-07, "Nuclear Utility Year 2000 Readiness," dated October 1997, and NEI/NUSMG 98-07, "Nuclear Utility Year 2000 Readiness Contingency Planning," dated August 1998, as the primary references for this review.

Conclusions regarding the Y2K readiness of this facility are not included in this report. The results of this review will be combined with reviews of Y2K programs at other plants in a summary report to be issued at a later date.

**E8.2** Violation Closure

The below violation is closed consistent with the guidance previously provided in Section O8.1 of this report.

<b>Violation Number</b>	<b>Description</b>	<b>CA Program Reference</b>
50-458/9710-03	Failure to install criticality monitoring during new fuel inspection	CR 97-1010

- E8.3** (Closed) License Event Report (LER) 50-458/97-04: Inadequate surveillance of Division III battery due to calculation error. This event report documented a failure to perform an adequate surveillance on the Division III battery as a result of a calculation error of the battery profile. The issues identified in this LER were reviewed in NRC Inspection Report 50-458/97-13. The failure to incorporate the proper design information for the Division III battery into the surveillance acceptance criteria is a violation of Technical Specification 5.4.1 (50-458/9907-03). This Severity Level IV violation is being treated as a noncited violation in accordance with Appendix C of the NRC Enforcement Policy. The circumstances addressed in the LER and the NRC inspection report are addressed in the licensee corrective action program as Condition Reports 97-1079 and 97-1111. The licensee's corrective actions were acceptable and the battery was determined to be operable.

**IV. Plant Support**

**R4** **Staff Knowledge and Performance in Radiological Protection Controls**

**R4.1** Refueling Outage Radiological Controls (71750)

**a.** Inspection Scope

The inspectors observed licensee radiological control practices during plant tours, new fuel receipt, and fuel movements in the upper fuel pool and the fuel building.

**b.** Observations and Findings

Licensee personnel were observed to be properly implementing radiological control practices and procedures in the field. The fuel receipt activity was properly monitored by

radiological control technicians. During movements of spent fuel in the upper fuel pool, proper radiological practices were demonstrated by the licensee personnel involved in the fuel movement. Radiological control technicians provided continuous and appropriate monitoring during fuel movements in the fuel building.

**P2 Status of Emergency Preparedness Facilities, Equipment, and Resources**

**P2.1 General Comments (71750)**

During routine plant tours, the inspectors verified that the emergency preparedness facilities were properly maintained. No problems were found.

**S1 Conduct of Security and Safeguards Activities**

**S1.1 General Comments (71750)**

During routine tours, the inspector observed protected area illumination levels, maintenance of the isolation zones around protective area barriers, and the status of security secondary power supply equipment. No problems were observed.

**V. Management Meetings**

**X1 Exit Meeting Summary**

The exit meeting was conducted on July 19, 1999. The licensee did not express a position on any findings in the report. None of the material discussed in the exit meeting was considered proprietary.

## ATTACHMENT

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

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P. Chapman, Superintendent, Chemistry  
D. Dormady, Manager, Plant Engineering  
J. Fowler, Director, Quality Programs  
T. Hildebrandt, Manager, Maintenance  
J. Holmes, Manager Radiation Protection and Chemistry  
H. Hutchens, Superintendent, Plant Security  
R. King, Director, Nuclear Safety and Regulatory Affairs  
D. Lorfing, Supervisor, Licensing  
D. Mims, General Manager, Plant Operations  
J. McGhee, Acting Manager, Operations  
D. Pace, Director, Design Engineering  
A. Wells, Superintendent, Radiation Control

### INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering  
IP 61726: Surveillance Observations  
IP 62707: Maintenance Observations  
IP 71707: Plant Operations  
IP 71750: Plant Support  
IP 92700: Onsite Followup of Written Reports of Nonroutine Events at Power  
Reactor Facilities  
IP 92901: Followup - Operations  
IP 92902: Followup-Maintenance  
IP 93702: Prompt Response to Events  
Temporary Instruction 2515/141: Review of Year 2000 (Y2K) Readiness of Computer Systems  
at Nuclear Power Plants

### ITEMS OPENED AND CLOSED

#### Opened

50-458/9907-01	EEI	An apparent violation of Criterion V of Appendix B to 10 CFR Part 50 regarding failure to provide adequate work instruction for the performance of maintenance on the Division I diesel generator (Section M8.1).
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