



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

March 30, 2000

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. 50-458/2000-07**

Dear Mr. Edington:

This refers to the inspection conducted on March 13-17, 2000, at the River Bend Station facility. The inspection focused on radiation protection program activities during Refueling Outage 9. The enclosed report presents the results of this inspection.

Overall, the radiation protection program was acceptably implemented. However, adherence to radiation work permit requirements continued to be a problem.

Based on the results of this inspection, the NRC has determined that three Severity Level IV violations of NRC requirements occurred. These violations are being treated as noncited violations (NCVs), consistent with Section VII.B.1.a of the Enforcement Policy. These NCVs are described in the subject inspection report. If you contest the violation or severity level of these NCVs, 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, 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 accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, if requested, will be placed in the NRC Public Document Room (PDR).

Entergy Operations, Inc.

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Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

**/RA/**

Gail M. Good, Chief  
Plant Support Branch  
Division of Reactor Safety

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

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NRC Inspection Report No.  
50-458/2000-07

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket No.: 50-458  
License No.: NPF-47  
Report No.: 50-458/2000-07  
Licensee: Entergy Operations, Inc.  
Facility: River Bend Station  
Location: 5485 U.S. Highway 61  
St. Francisville, Louisiana  
Dates: March 13-17, 2000  
Inspector: Michael P. Shannon, Senior Radiation Specialist  
Approved By: Gail M. Good, Chief, Plant Support Branch  
Division of Reactor Safety

Attachment: Supplemental Information

## EXECUTIVE SUMMARY

### River Bend Station NRC Inspection Report No. 50-458/2000-07

This announced routine inspection reviewed the radiation protection program, focusing on refueling outage activities. Areas reviewed included: exposure controls, planning and preparation, controls of radioactive material and contamination, surveying and monitoring, the program to maintain occupational exposure as low as is reasonably achievable (ALARA), contractor training and qualifications, and quality assurance oversight of radiation protection activities.

#### Plant Support

- In general, high radiation areas were properly controlled and posted in accordance with regulatory requirements. Workers were knowledgeable of radiological conditions and low-dose waiting areas. Some weaknesses were noted during the ALARA pre-job briefing for reactor water clean-up valve work (Section R1.1).
- Five examples of a Technical Specification 5.4.1 violation were identified for failure to follow radiation work permit requirements. These failures to follow radiation work permit system requirements were similar to violations identified in NRC Inspection Report 50-458/99-04. The five examples of a Severity Level IV violation are being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. The violation examples are in the licensee's corrective action program as Condition Reports 99-1890, 2000-0104, 2000-0564, 2000-0606, and 2000-0626, respectively (Section R1.1).
- A violation of Technical Specification 5.7.1 was identified for failure to wear an alarming dosimeter or have continuous radiation protection coverage during an entry into a locked high radiation area. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Report 2000-0642 (Section R1.1).
- An effective internal exposure control program was in place. In general, continuous air monitors, portable air samplers, and high efficiency particulate air filter ventilation units were appropriately used to monitor and evaluate radiological conditions and limit airborne exposures during work evolutions. A proper total effective dose equivalent/ALARA evaluation was performed to ensure compliance with the requirements of 10 CFR Part 20, Subpart H. No problems were identified with the whole-body counting and internal dose assessment programs (Section R1.2).
- Radiological outage work planning was good. Radiological work tasks were well planned, and ALARA personnel were appropriately involved during the outage planning stage. Post-job briefings captured lessons learned from craft workers and radiation protection personnel. The ALARA plan and radiation work permit used for the cutout and removal of Reactor Water Clean-Up system inlet line Manual Isolation Valve

No. G33-VF105 properly incorporated appropriate radiological controls and hold points (Section R1.3).

- Radiation workers properly used contamination monitoring equipment. Contaminated areas were clearly identified and posted in accordance with station procedures. Radiological postings were conspicuous and clear (Section R1.4).
- A violation of 10 CFR 20.1501(a) was identified for failure to perform an adequate survey to identify the concentration or quantities of radioactive material and the potential radiological hazard that could be present. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Report 1999-0832 (Section R1.4).
- An effective outage ALARA program was implemented. The ALARA committee was supported by all station departments. The exposure goal of 160 person-rem for Refueling Outage 9 was an aggressive, challenging goal and the lowest estimated goal in the licensee's history. As of March 16, 2000, the station's outage exposure was approximately 64 person-rem. A review of the actual outage exposure to date, versus the remaining work, indicated that it was likely that the station would meet the 160 person-rem exposure goal. The outage temporary shielding program was estimated to save the station about 27 person-rem (Section R1.5).
- An effective quality assurance program was maintained. The lead auditor was well qualified to perform radiation protection audits and surveillances. Quality assurance program audit and surveillances provided management with a critical perspective of the radiation protection program. The station's corrective action program was effectively used to document radiation protection program concerns (Section R7.1).

## Report Details

### Summary of Plant Status

During this inspection the station was in days 10 through 14 of a planned 25-day refueling outage.

## IV. Plant Support

### **R1 Radiological Protection and Chemistry Controls**

#### R1.1 External Exposure Controls

##### a. Inspection Scope (83750)

Selected radiation workers and radiation protection personnel involved in the external exposure control program were interviewed. The inspector conducted several tours of the controlled access area, including containment and drywell buildings were performed. The following items were reviewed:

- Control of high radiation areas
- Radiation work permits
- Job coverage by radiation protection personnel
- Personnel dosimetry
- Housekeeping in the radiological controlled area

##### b. Observations and Findings

High radiation areas were posted in accordance with regulatory requirements. All Technical Specification doors were locked and flashing lights were working and appropriately used in accordance with regulatory requirements. Radiological postings were clearly and consistently posted. Radiological job coverage was appropriate for radiological work observed. Radiation protection field briefings re-enforced workers knowledge of radiological conditions and ALARA low-dose waiting areas.

Field interviews with radiation workers revealed that workers were knowledgeable of the radiological conditions in assigned work areas and knew the proper response to electronic dosimeter alarms. In general, all workers observed wore dosimetry properly. During tours of the radiologically controlled access area, the inspector observed that workers appropriately used ALARA low-dose waiting areas in accordance with management's expectations.

Housekeeping throughout the controlled access area was very good. Areas were free of debris. Tools and equipment staged for radiological work activities were properly controlled.

Technical Specification 5.4.1 requires, in part, that written procedures be established, implemented, and maintained covering the activities recommended in Appendix A of

Regulatory Guide 1.33, Revision 2, February 1978. Regulatory Guide 1.33, Appendix A, Section 7.e(1), includes procedures for the radiation work permit system. Section 7.2.2 of Procedure RBNP-024, "Radiation Protection Plan," Revision 9, stated, in part, adherence to the requirements of the radiation work permit is mandatory. Section 6.1.13 of Procedure RSP-0200, "Radiation Work Permit," Revision 19, stated, in part, that a supervisor (radiation protection or job) was to perform a radiological pre-job briefing using a completed radiological pre-job briefing checklist, radiation work permit, appropriate work documents, and the ALARA pre-job review.

Radiation work permits were written clearly and provided workers with the appropriate controls and radiological information to safely accomplish their tasks. However, during the review of condition reports, the inspector noted the following four examples of a Technical Specification 5.4.1 violation.

1. On November 24, 1999, the licensee identified that two maintenance workers entered a posted high contaminated area on Elevation 114 foot of the reactor building without the required double anti-contamination protective clothing stipulated on their radiation work permit (99-0006-00, Revision 1). The licensee documented this issue in Condition Report 99-1890.
2. On January 19, 2000, the licensee identified that two operations personnel entered two nonsteam affected locked high radiation areas using a radiation work permit (00-1002-01, Revision 0) which did not allow entries into such areas. The licensee documented this issue in Condition Report 2000-0104.
3. On March 11, 2000, the licensee identified that a high efficiency particulate air filter unit required by Radiation Work Permit 00-1608-00, Revision 0, was not used during the cutout and removal of valves located in the main steam tunnel. The licensee documented this issue in Condition Report 2000-0564.
4. On March 13, 2000, the licensee identified that a high efficiency particulate air filter unit required by Radiation Work Permit 00-1004-00, Revision 0, was not used during the welding of a pipe associated with the main turbine control valve leak-off line to the main condenser. The licensee documented this issue in Condition Report 2000-0606.

The failure to follow the requirements of Section 7.2.2 of Procedure RBNP-024 on four occasions was identified as four examples of a Technical Specification 5.4.1 violation.

In addition to the four licensee identified occurrences, on March 13, 2000, the inspector attended a pre-job ALARA briefing for the cutout and removal of Reactor Water Clean-Up System inlet line Manual Isolation Valve No. G33-VF105. The briefing was held in the Technical Support Center. Personnel directly involved in the task were spread throughout the room which made it difficult for the maintenance and radiation protection supervisors to focus their attention directly at or on the individuals involved in the task. The radiation protection supervisor distributed copies of the work area radiological survey information. Work area survey data was discussed in detail. During the briefing, the radiation protection supervisor held up a copy of the survey map. However, the survey information was printed on an 8 by 11 inch piece of paper, which made it

extremely difficult for people more than 10 feet away to see where the supervisor was pointing. Although workers had a copy of the work location survey map, the inspector noted that the map did not reflect the work location for the entire room, which made it difficult for workers to understand the travel route and location of the low-dose waiting area. Additionally, workers were not provided with a copy of the radiation work permit for review. Instead, the radiation protection supervisor read the requirements of the radiation work permit.

The inspector noted the following examples of Procedure RSP-0200 required items which were not covered during the ALARA pre-job briefing: (1) personnel exposure margins and training requirements, (2) verification with the operations department that no reactor water clean up resin transfers would occur with personnel working in the area, and (3) that breaching a contaminated system may adversely change local radiological conditions. Further, the pre-job ALARA review was not discussed.

The failure to follow the requirements of Section 6.1.13 of Procedure RSP-0200 was identified as a fifth example of a Technical Specification 5.4.1 violation. The inspector noted that the five examples of failures to follow radiation work permit system requirements were similar to violations identified in NRC Inspection Report 50-458/99-04.

These five examples of a Severity Level IV violation are being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. The violation examples are in the licensee's corrective action program as Condition Report's 99-1890, 2000-0104, 2000-0564, 2000-0606, and 2000-0626, respectively (50-458/0007-01).

Technical Specification 5.7.1 states, in part, that any individual permitted to enter a high radiation area shall be provided with or accompanied by:

- a radiation monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received, and/or
- an individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area.

In general, high radiation areas were properly controlled. However, on March 16, 2000, the licensee identified that a worker entered the drywell, a posted locked high radiation area where whole-body dose rates were as high as 3,000 millirems per hour, without an alarming dosimeter or continuous radiation protection coverage. The failure to wear an alarming dosimeter or have continuous radiation protection coverage was a violation of Technical Specification 5.7.1. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Report 2000-0642 (50-458/0007-02).

c. Conclusions

In general, high radiation areas were properly controlled and posted in accordance with regulatory requirements. Workers were knowledgeable of radiological conditions and low-dose waiting areas. Some weaknesses were noted during the ALARA pre-job briefing for reactor water clean-up valve work.

Five examples of a Technical Specification 5.4.1 violation were identified for failure to follow radiation work permit requirements. These five examples of failures to follow radiation work permit system requirements were similar to violations identified in NRC Inspection Report 50-458/99-04. The five examples of a Severity Level IV violation are being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. The violation examples are in the licensee's corrective action program as Condition Reports 99-1890, 2000-0104, 2000-0564, 2000-0606, and 2000-0626, respectively.

A violation of Technical Specification 5.7.1 was identified for failure to wear an alarming dosimeter or have continuous radiation protection coverage during an entry into a locked high radiation area. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Report 2000-0642.

R1.2 Internal Exposure Controls

a. Inspection Scope (83750)

Selected radiation protection personnel involved with the internal exposure control program were interviewed. The following items were reviewed:

- Air sampling program, including the use of continuous air monitors and filtration units
- Respiratory protection program
- Whole-body counting program
- The internal dose assessment program

b. Observations and Findings

In general, continuous air monitors, portable air samplers, and high efficiency particulate air filter ventilation units were appropriately used to monitor and evaluate radiological conditions and limit airborne exposures during work evolutions.

The inspector reviewed the control and issue programs for respiratory equipment and identified no problems. As of March 16, 2000, there was one task which required respiratory equipment for radiological work. The inspector reviewed the total effective dose equivalent/as low as is reasonably achievable (TEDE/ALARA) evaluation for the

above task, which was performed to ensure compliance with the requirements of 10 CFR Part 20, Subpart H, and concurred with the licensee's conclusions that respiratory protection equipment satisfied TEDE/ALARA principles.

As of March 16, 2000, there were five positive whole-body counts that occurred during Refueling Outage 9, which exceeded the licensee's action level for recording internal dose (10 millirem). The highest calculated internal dose was approximately 16 millirem. No problems were identified with the whole-body counting and internal dose assessment programs.

c. Conclusions

An effective internal exposure control program was in place. In general, continuous air monitors, portable air samplers, and high efficiency particulate air filter ventilation units were appropriately used to monitor and evaluate radiological conditions and limit airborne exposures during work evolutions. A proper total effective dose equivalent/ALARA evaluation was performed to ensure compliance with the requirements of 10 CFR Part 20, Subpart H. No problems were identified with the whole-body counting and internal dose assessment programs.

R1.3 Planning and Preparation

a. Inspection Scope (83750)

Radiation protection department personnel involved in radiation protection planning and preparation were interviewed. The following items were reviewed.

- ALARA job planning
- Job scheduling and sequencing
- ALARA packages
- Incorporation of lessons learned from similar work
- Supplies of radiation protection instrumentation, protective clothing, and consumable items

b. Observations and Findings

Radiological work tasks were well planned, and ALARA personnel were appropriately involved during the outage planning stage. Post-job briefings captured lessons learned from craft workers and radiation protection personnel. At the completion of radiological work tasks, job history comments were provided to ALARA personnel for evaluation and incorporation into future, similar radiological work packages. No problems were noted during the detailed review of the ALARA plan and radiation work permit used for the cutout and removal of Reactor Water Clean Up System inlet line Manual Isolation Valve No. G33-VF105. The plan incorporated lessons learned from the site and industry, and the radiation work permit included appropriate radiological controls and hold points.

From field observations, the inspector determined that there were no problems with the radiation protection support, instrumentation, protective clothing, and consumable supplies needed to support outage radiological work.

c. Conclusions

Radiological outage work planning was good. Radiological work tasks were well planned, and ALARA personnel were appropriately involved during the outage planning stage. Post-job briefings captured lessons learned from craft workers and radiation protection personnel. The ALARA plan and radiation work permit used for the cutout and removal of Reactor Water Clean-Up system inlet line Manual Isolation Valve No. G33-VF105 properly incorporated appropriate radiological controls and hold points.

R1.4 Control of Radioactive Materials and Contamination; Surveying and Monitoring

a. Inspection Scope (83750)

Areas reviewed included:

- Contamination monitor use and response to alarms
- Control of radioactive material
- Portable instrumentation calibration and performance checking programs
- Adequacy of the surveys necessary to assess personnel exposure

b. Observations and Findings

Workers exiting the radiologically controlled access area used the contamination monitoring equipment properly, and control point attendants were attentive to personnel contamination monitor alarms. Radiation protection personnel provided timely guidance to personnel who alarmed the monitors. Personnel observed exiting radiologically contaminated areas used proper health physics practices during the removal of potentially contaminated protective clothing.

10 CFR 20.1501(a) states, in part, that each licensee shall make or cause to be made, surveys that: (1) may be necessary for the licensee to comply with the regulations in this part; and (2) are reasonable under the circumstances to evaluate the concentrations or quantities of radioactive material and the potential radiological hazards. 10 CFR 20.1802 states, in part, that a licensee shall control licensed material that is not in storage.

On May 4, 1999, the licensee documented an event in which a shared resources worker left the licensee's station and returned to the worker's regular work station. Upon entry, this individual alarmed the station's portal radiation monitor. A radiological survey performed at the worker's regular work station identified that the top of one shoe was contaminated with approximately 250 counts per minute above background. The failure of the licensee to perform an adequate survey to identify the concentration or quantities of radioactive material and the potential radiological hazard that could be present is a violation of 10 CFR 20.1501(a). This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy.

This violation is in the licensee's corrective action program as Condition Report 1999-0832 (50-458 0007-03).

Independent radiological survey measurements performed during tours of the radiologically controlled access area confirmed that radiological postings were in compliance with station procedures and regulatory requirements. In general, radioactive material bags and containers observed were properly labeled. Contamination boundaries were clearly marked and posted. Trash and laundry containers were properly maintained to prevent the spread of radioactive contamination to clean areas.

All portable radiation protection survey instruments observed throughout the plant were calibrated and source response checked in accordance with station procedures.

c. Conclusions

Radiation workers properly used contamination monitoring equipment. Contaminated areas were clearly identified and posted in accordance with station procedures. Radiological postings were conspicuous and clear. A violation of 10 CFR 20.1501(a) was identified for failure to perform an adequate survey to identify the concentration or quantities of radioactive material and the potential radiological hazard that could be present. This Severity Level IV violation is being treated as a noncited violation, consistent with Section VII.B.1.a of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Condition Report 1999-0832.

R1.5 Maintaining Occupational Exposure As Low As is Reasonably Achievable (ALARA)

a. Inspection Scope (83750)

The inspector interviewed radiation protection personnel involved with the ALARA program and reviewed the following areas:

- ALARA committee support
- Exposure goal establishment and status
- Temporary shielding program

b. Observations and Findings

From a review of the ALARA committee meeting minutes held since May 1999, the inspector concluded that the committee was appropriately supported by all station departments involved in outage ALARA planning. The inspector determined from discussions with members of the ALARA staff and a review of past outage exposure histories that the exposure goal of 160 person-rem for Refueling Outage 9 was an aggressive, challenging goal, that was developed by using historical dose information combined with industry information for tasks not previously performed at River Bend Station. As of March 16, 2000, the station's outage exposure to date was approximately 64 person-rem. A review of the actual outage exposure to date, versus the remaining work, indicated that it was likely that the station would meet the 160 person-rem exposure goal. The inspector noted that this goal was the lowest estimated exposure goal in the licensee's history.

No problems were identified with the temporary shielding program. There were 22 temporary shielding request forms of areas/components installed during Refueling Outage 9. All shielding installations observed throughout the radiologically controlled access area were installed in accordance with procedural requirements. From information supplied by the licensee, it was estimated that installing these temporary shielding requests would save the station about 27 person-rem.

From data supplied by the licensee, the inspector determined that station and task activity exposures were appropriately tracked and trended by ALARA staff.

c. Conclusions

An effective outage ALARA program was implemented. The ALARA committee was supported by all station departments. The exposure goal of 160 person-rem for Refueling Outage 9 was an aggressive, challenging goal and the lowest estimated goal in the licensee's history. As of March 16, 2000, the station's outage exposure was approximately 64 person-rem. A review of the actual outage exposure to date, versus the remaining work, indicated that it was likely that the station would meet the 160 person-rem exposure goal. The outage temporary shielding program was estimated to save the station about 27 person-rem.

**R5 Staff Training and Qualification in Radiological Protection and Chemistry**

R5.1 Radiation Protection Staff Training

a. Inspection Scope (83750)

The inspector interviewed personnel involved with contractor radiation protection technician training and resume evaluation and reviewed the following items:

- Contractor radiation protection technician qualification program
- Resumes of contractor radiation protection technicians
- Radiation protection management over sight of the contractor radiation protection training/qualification program

b. Observations and Findings

Twenty-seven contract senior radiation protection technicians were hired to support outage radiological activities. From a review of selected resumes, the inspector concluded that these technicians met or exceeded the Technical Specification experience requirement of an ANSI 3.1 technician (3 years of radiation protection experience).

Radiation protection management was appropriately involved in developing the qualification task topics. The Northeast Utilities' examination was used to assess the basic radiation protection technical knowledge of the technicians. Before being

approved to work at the station, all contractor radiation protection technicians were required to take and pass the exam within the past five years. Contract radiation protection technicians were required to pass a test on site-specific information and station radiation protection procedures.

The inspector determined that the qualification cards covered the appropriate topics and that radiation protection management was appropriately involved in the oversight of the contractor training program.

c. Conclusions

An effective radiation protection contractor training/qualification program was maintained.

**R7 Quality Assurance in Radiological Protection and Chemistry Activities**

R7.1 Quality Assurance Audits and Surveillances, and Radiation Department Self-Assessments and Radiological Condition Reports

a. Inspection Scope (83750)

The inspector interviewed selected personnel involved with the performance of quality assurance audits and surveillances and reviewed the following items:

- Quality assurance personnel qualifications
- Quality assurance audits performed since April 1, 1999
- Quality assurance surveillances performed since April 1, 1999
- Radiological condition reports written since April 1, 1999

b. Observations and Findings

No problems were noted with the qualifications of the lead quality assurance department individual assigned to provide oversight to the radiation protection program. The inspector interviewed this individual and determined that the auditor had the necessary practical and technical radiation protection experience to conduct effective audits.

One radiation protection audit (00-01-RP) was performed since the last inspection of this area in April 1999. Ten technical specialists from other nuclear power sites were used to support the licensee's quality assurance staff during the audit. The audit was a comprehensive and intrusive review of the operational radiation protection program. The audit team identified 10 program nonconformances that were properly documented in the station's condition reporting system. The inspector noted that one of these nonconformances documented a Technical Specification 5.4.1 procedural violation. This violation is discussed in Section R1.1 above. The audit also identified nine areas for improvement. Numerous recommendations were documented in each of the improvement areas.

The inspector determined that the audit and surveillance reports provided management with a critical assessment of the radiation protection program and areas needing attention.

The inspector reviewed a summary of radiation protection condition reports written since April 1999 and selected approximately 20 for a more in-depth review. The inspector identified a continued negative trend in worker adherence to radiation work permit requirements. These issues are documented in Section R1.1 above. The inspector determined that the licensee documented radiation protection concerns at the proper threshold to provide station management with a good perspective of the radiation protection program.

c. Conclusions

An effective quality assurance program was maintained. The lead auditor was well qualified to perform radiation protection audits and surveillances. Quality assurance program audit and surveillances provided management with a critical perspective of the radiation protection program. The station's corrective action program was effectively used to document radiation protection program concerns.

**V. Management Meetings**

**X1 Exit Meeting Summary**

The inspector presented the inspection results to members of licensee management at an exit meeting on March 17, 2000. The licensee acknowledged the findings presented. No proprietary information was identified.

**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**PARTIAL LIST OF PERSONS CONTACTED**

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M. Chambers, ALARA Coordinator, Radiation Protection  
M. Davis, Senior Specialist, Radiation Protection  
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D. Heath, Supervisor, Radiation Protection  
E. Hensley, Supervisor, Radiation Protection  
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D. Wells, Superintendent, Radiation Protection

NRC

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

**INSPECTION PROCEDURE USED**

83750 Occupational Radiation Exposure

**LIST OF ITEMS OPENED, CLOSED, and DISCUSSED**

Opened and Closed

50-458 0007-01	NCV	Failure to follow radiation work permit requirements (Section R1.1).
50-458 0007-02	NCV	Failure to wear the required dosimetry to enter a locked high radiation area (Section R1.1).
50-458 0007-03	NCV	Failure to perform an adequate radiation survey (Section R 1.4)

Discussed

None

LIST OF DOCUMENTS REVIEWED

A summary of radiological condition reports written since April 1999

Quality Assurance Audit 00-01-RP

Quality Assurance Surveillances 905001, 907003, and 908001

Quality Assurance Procedure QAI-2.1, "Quality Assurance Instructions," Revision 18

Radiation Protection Procedure TPP-7-016, "Radiation Protection Training and Qualification Program," Revision 8

Radiation Protection Procedure RBNP-024, "Radiation Protection Plan," Revision 9

Radiation Protection Procedure ADM-0039, "ALARA Program," Revision 7

Radiation Protection Procedure RPP-0005, "Posting of Radiological Controlled Areas," Revision 22

Radiation Protection Procedure RPP-0006, "Radiological Surveys," Revision 14

Radiation Protection Procedure RSP-0200, "Radiation Work Permits," Revision 19

Radiation Protection Procedure RSP-0217, "Access Control," Revision 11