

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 50-458/95-24

License: NPF-47

Licensee: Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana

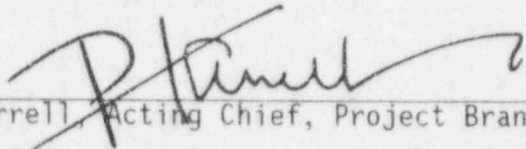
Facility Name: River Bend Station

Inspection At: St. Francisville, Louisiana

Inspection Conducted: September 10 through October 21, 1995

Inspectors: W. F. Smith, Senior Resident Inspector
D. L. Proulx, Resident Inspector
K. D. Weaver, Reactor Inspector, Division of Reactor Safety

Approved:


P. H. Harrell, Acting Chief, Project Branch D

11/7/95
Date

Inspection Summary

Areas Inspected: Routine, unannounced inspection of plant operations, maintenance and surveillance observations, onsite engineering, plant support activities, and followup on corrective actions for violations.

Results:

Plant Operations

- Operators performed their duties in a formal and controlled manner and in accordance with the Technical Specifications (TS) and licensee procedures (Sections 2.1 and 2.2).
- The three engineered safety feature systems walked down by the inspectors were found to be in good material condition and ready to perform their intended safety functions (Section 2.3).
- Operators executed the implementation of the Improved Technical Specifications (ITS) in an effective manner. The operators demonstrated a good working knowledge of the ITS, indicating a successful training effort (Section 2.4).

Maintenance

- The maintenance technicians demonstrated a good questioning attitude by stopping work and requesting that maintenance planners provide appropriate torque values for diesel generator (DG) exhaust manifold bolts. Failure to have torque values in the original scope of the work authorization and difficulty in finding a vendor manual increased the Division I DG out-of-service time and revealed poor planning of the DG outage (Section 3.2).
- Operators performed inservice testing of the reactor core isolation cooling (RCIC) valves and pump in a good manner. The upgraded procedure was clearly written and well human factored. The operators demonstrated a very professional attitude and ownership of the inservice test process (Section 4.1).
- The inspectors noted performance issues during observation of a DG surveillance test. Operators did not maintain continuous communications between the control room and the DG room. The test procedure contained a typographical error that identified the wrong train on the posttest switch lineup (Section 4.2).
- The inspectors identified that operations personnel did not obtain DG test data in accordance with the surveillance procedure. The inspectors considered this deficiency weak attention to detail because operations personnel failed to follow the clear intent of the procedure (Section 4.2).

Engineering

- Inspectors identified that test engineers worked around an incorrect formula in a motor-operated valve test procedure. Inspectors confirmed that calculation results were corrected in all sampled instances, but were concerned that engineers did not correct the procedure (Section 3.1).
- The methodology used and the conclusions identified relating to feedwater flow venturi fouling and the resulting inaccuracies in computed core thermal power demonstrated well executed engineering work (Section 5.1).

Plant Support

- The licensee's radiation protection program implementation continued to reflect good practices in maintaining exposures as low as reasonably achievable (Section 6.1).
- Plant housekeeping continued to be very good during this inspection period (Section 6.2).

- Plant security personnel continued to perform well as they executed the security plan (Section 6.3).

Summary of Inspection Findings:

Closed Items

- Violations 458/9413-01, 458/9419-05, and 458/9415-01 were closed (Sections 7.1, 7.2, 7.3).

Attachment:

- Persons Contacted and Exit Meeting

DETAILS

1 PLANT STATUS

At the beginning of this inspection period, the plant was operating at 100 percent power. On October 12, 1995, operators reduced power to 99.5 percent power because of concerns with the turbine control valves. The plant was at 99.5 percent power at the end of this inspection period.

2 PLANT OPERATIONS (71707)

The inspectors evaluated this area to ensure that the licensee operated the facility safely and in conformance with regulatory requirements and to ensure that the management controls effectively discharged the licensee's responsibilities for continued safe operation.

2.1 Control Room Observations

The inspectors toured the control room and observed operator performance daily, when on site. On several occasions, the inspectors noted management in the control room observing and briefing control room operators on their expectations. Additionally, control room staffing was appropriate, control room operators were attentive in carrying out assigned duties, and housekeeping in the control room was excellent.

2.2 Plant Tours

During tours of the plant areas, the inspectors made the observations discussed below:

2.2.1 Operating Logs and Records

The inspectors reviewed operating logs and records against TS and administrative control procedure requirements and determined these to be satisfactory.

2.2.2 Monitoring Instrumentation

The inspectors observed process instruments for correlation among channels and for conformance with TS requirements, and no discrepancies were identified.

2.2.3 Shift Manning

The inspectors observed control room and shift manning for conformance with 10 CFR 50.54(k), TS, and administrative procedures. The inspectors observed the attentiveness of the operators in the execution of their duties. The inspectors concluded that shift manning conformed with applicable requirements

and that operators were attentive to duties. The control room was observed to be free of distractions such as nonwork-related radios and inappropriate reading materials.

2.2.4 Equipment Lineups

The inspectors verified that valves and electrical breakers were in the position or condition required by TS and operating procedures for the applicable plant mode. This verification included routine control board indication reviews and conduct of partial system lineups. Appropriate entry into TS limiting conditions for operation were verified by direct observation. The inspectors did not identify any discrepancies during these independent checks.

2.2.5 Equipment Tagging

The inspectors verified that selected equipment that had outstanding tagging requests had been properly tagged and placed in the specified configuration. The inspectors did not identify any discrepancies with the clearance orders.

2.2.6 General Plant Equipment Conditions

The inspectors observed plant equipment for indications of system leakage, improper lubrication, or other conditions that would prevent the associated system from fulfilling its functional safety requirements. Annunciators were observed to ascertain equipment status and operability. No problems affecting system function were identified.

2.3 Engineered Safety Features Walkdown

The inspectors walked down portions of the selected systems listed below to confirm that the operators aligned the systems in accordance with plant procedures:

<u>System</u>	<u>Dates</u>
Low Pressure Core Spray	October 6, 1995
Standby Liquid Control System	October 11, 1995
Division II DG	October 16, 1995

During the walkdown of the systems, the inspectors verified that items such as hangers, supports, electrical power supplies, cabinets, and cables remained in a condition to perform their required functions. The inspectors verified proper lubrication and cooling of major components. The inspectors verified that selected system valves were in the required position by both local and remote position indication, as applicable. The inspectors noted that the engineered safety features systems were generally in good material condition and were aligned in accordance with applicable licensee procedures for the portions walked down.

2.4 ITS Implementation

On July 25, 1995, the NRC approved the amendment for the ITS. Subsequently, the licensee implemented the ITS on October 1. The inspectors reviewed the adequacy of the initial ITS implementation. The inspectors noted that the operating crews were trained on the new requirements and possessed a good working knowledge of their application. Following October 1, the inspectors reviewed the limiting condition for operation logs to ensure that operators applied the ITS properly. The inspectors noted that the operators tracked inoperable items that no longer had TS requirements via the tracking limiting condition for operation log. Also, the licensee properly added ITS items that were previously not addressed by the TS to the limiting condition for operation logs. The inspectors will continue to monitor the licensee's adherence to the ITS during future inspections.

3 MAINTENANCE OBSERVATIONS (62703)

During this inspection period, the inspectors observed portions of the maintenance activities listed below:

<u>Maintenance Work Order (MWO) Number</u>	<u>Description</u>
R221857	Valve ISWP*MOV40A static signature test
W217527	Slight fuel oil leak at Injector 8 fuel return line tubing connector
W222275	Torque DG exhaust manifold bolts to numerical value in Manual/DCO
P575773	Replace Agastat Relays B21H*K84B, *K108B, and *K1B
R302043	Replace relief valves and air filter for Air Compressor SVV-C4A
R173809	Remove, refurbish, reinstall Valve ISWP*MOV4A, standby service water discharge
E576766	Replace Solenoid Operating Valve IGTS*SOV22A for standby gas treatment dampers

The inspectors found no significant strengths or weaknesses during the observations, except as noted below:

3.1 MWO R221857 - Motor-Operated Valve Signature Testing

On September 13 and 14, 1995, the inspectors observed portions of the maintenance activities associated with the performance of motor-operated valve signature testing on Valve ISWP*MOV40A, standby service water discharge. The

inspectors concluded that the electricians demonstrated very good self-checking skills and procedure adherence during the initial test equipment installation and while obtaining data during the valve testing.

The inspectors reviewed the valve testing data and the engineering calculations associated with the valve torque window values. During review of the calculated torque window values and Procedure PEP-0223, "Quarter Turn VOTES Signature Testing Procedure," Revision 1A, the inspectors noted a discrepancy between the minimum torque values calculated by the engineer and the minimum torque value that would be obtained if the equation for this calculation was used as written in Procedure PEP-0223. The equation directed the user to add vice multiply the numbers in the denominator. From the review, the inspectors concluded that much lower and nonconservative minimum torque values were calculated by the equation given in Procedure PEP-0223. The inspectors questioned licensee personnel concerning this discrepancy.

Licensee personnel indicated that the higher minimum torque value calculated by the engineer was the correct value. Further, engineers had always worked around the equation for calculating the "lower torque margin" in order to obtain the correct value because the equation was incorrect. The inspectors concluded that engineers failed to assure that a procedure that supports safety-related maintenance was appropriate to the circumstances.

Subsequently, the inspectors questioned licensee personnel concerning the validity of previous calculated motor-operated valve minimum torque values. The licensee stated that they had performed 21 such calculations. The licensee reviewed all 21 calculations and identified that engineers had manipulated the equation for each of the calculations to obtain the correct values. The inspectors randomly sampled seven of the completed procedures and independently verified that the intended results were obtained and documented.

The licensee stated that Procedure PEP-0223 would be revised to provide the correct equation. In addition, the licensee concluded that, although this error was consistently worked around, no incorrect minimum torque switch settings occurred and the safety-related valves remained operable.

The inspectors questioned the licensee as to why the incorrect equation was not identified and corrected during the licensee's procedure validation process. The licensee indicated that, during the procedure validation of Procedure PEP-0223, the error in the equation was missed because the incorrect portion of the calculation was "not applicable" to the specific valve type selected for the validation and, thus, the correct torque value was reached.

The inspectors concluded that the procedure verification and validation was weak because it did not exercise all the steps of the calculations. Personnel performing the validation did not use a value that verified all steps in the calculation could be satisfactorily accomplished. The licensee reviewed other plant engineering procedures to ensure that similar errors did not exist and found no problems.

3.2 Division I DG Outage

Operators removed the Division I DG from service on September 13, 1995, for a preplanned maintenance outage. This action required entry into the TS 3.8.1.1 limiting condition for operation. The inspectors verified that all required TS action statements had been performed and logged accordingly in the control room logs. The inspectors walked down various components listed on the tag installation sheet for Clearance RB-95-0748 to verify components associated with the DG maintenance outage had been appropriately positioned and tagged. All components verified by the inspectors were appropriately positioned and tagged. The inspectors noted that two corrective MWOs had been initiated and scheduled to be performed during this preplanned outage.

The inspectors noted that minor MWO W217527 included very few details in the package provided to the mechanics to stop the fuel leak. The inspectors periodically interviewed and observed the mechanics investigate the scope of maintenance activities that would be required. The mechanics determined that it was not the Cylinder 8 fuel return line but, instead, the supply line. The mechanics proceeded to tighten the tubing connector, as allowed by the minor maintenance guidance, but determined that the connector could not be tightened any further. The mechanics appropriately returned the MWO to maintenance planning personnel for further evaluation and development.

The inspectors noted that minor MWO W222275 also had very little information in the work package. The inspectors again periodically interviewed and observed the mechanics as they continued to investigate the scope of maintenance activities that would be required. The mechanics obtained a copy of Condition Report (CR) 94-1616, which was associated with MWO W222275, to determine what torque values the MWO referred to. The inspectors reviewed CR 94-1616 that identified two bolts on the Division II DG exhaust manifold for Cylinder 8 as being broken. The CR described that the failed bolts did not affect operability of the DG.

Part of the corrective action associated with this CR required that the DG system engineer provide a specified numerical torque value for all exhaust flange bolts for both the Division I and II DGs. These newly developed torque values were to be provided in the DG vendor manual. The mechanics attempted to obtain a copy of the DG vendor manual; however, the required manual was not available for issue from site document control. The mechanics located the DG vendor manual in Engineering Support awaiting revision by the licensee's vendor manual upgrade group.

The inspectors reviewed Procedure ADM-0028, "Corrective Maintenance," Revision 14, and Procedure ADM-0023, "Conduct of Maintenance," Revision 13A, to verify that the work scope associated with MWOs W217527 and W222275 were appropriately identified as minor maintenance. The inspectors concluded that the licensee appropriately identified both MWOs as minor maintenance items in accordance with the administrative procedures. However, the inspectors concluded for MWO W222275 that the failure to include the appropriate torque

values and the failure to provide or verify that an approved DG vendor manual was available to the mechanics was a poor work planning effort.

After the inspectors discussed these concerns with the maintenance manager, the licensee initiated CR 95-0914. As part of the corrective actions for CR 95-0914, the licensee issued an approved copy of the DG vendor manual. The mechanics subsequently informed the inspectors that the appropriate numerical torque value for the DG exhaust flange bolts had not yet been incorporated into the DG vendor manual. The mechanics returned the unworked MWO W222275 back to maintenance planning personnel for further evaluation and planning. The inspectors considered that the mechanics had displayed a good questioning attitude and desire to avoid mistakes concerning their work efforts associated with the DG.

The inspectors frequently toured the Division I DG spaces while the DG was out of service. On September 13, during a tour, the inspectors noted five deficiency tags associated with the Division I DG. The inspectors questioned licensee planning and scheduling personnel about the five deficiency tags. The licensee representatives indicated that three of the five deficiency tags had been previously canceled. The canceled deficiency tags were subsequently removed from the DG components.

On September 14, following successful completion of Procedure STP-309-0201, "Division I Diesel Generator Operability Test," Revision 13, operators returned the DG to service and exited the TS 3.8.1.1 limiting condition for operation. The inspectors toured the Division I DG room subsequent to the performance of Procedure STP-309-0201. The inspectors noted the previously identified fuel oil leak at the Cylinder 8 supply line fitting; however, the inspectors determined that the small amount of leakage from the mechanical joint, with no visible tube cracking, had no DG operability.

4 SURVEILLANCE OBSERVATIONS (61726)

The inspectors observed the performance of portions of the surveillances listed below:

<u>Procedure Number</u>	<u>Title</u>
STP-209-6310	RCIC Quarterly Pump and Valve Operability Test
STP-309-0202	Division II DG Operability Test

4.1 RCIC System Inservice Test

On September 14, 1995, the inspectors observed reactor operators in the RCIC pump room and the control room perform the RCIC system quarterly operability test to satisfy the surveillance requirements of TS 4.7.3.b. While observing the surveillance test in the RCIC pump room, the inspectors noted that the reactor operators utilized Procedure STP-209-6310, Revision 4. This revision

had been approved on September 14 (same day of this surveillance test). The inspectors questioned the operators performing the surveillance test concerning the revised procedure.

The operators indicated that a new revision had been initiated to make the step sequence easier to follow. The operators indicated that some step numbers were replaced with bullets to allow some actions to be performed in any sequence, which in turn decreased the amount of time required to perform the surveillance test. Based on observations of the surveillance test performance, the inspectors concluded that the operators had enhanced the procedure. The reduced time required to perform the test significantly reduced the radiation dose that personnel received. Good communications between the operators in the RCIC room and the control room were also noted. The procedure was successfully performed and all surveillance test data met the acceptance criteria.

4.2 Division II DG Operability Test

On September 27, 1995, the inspectors observed an operability test of the Division II DG performed in accordance with Procedure STP-309-0202. The inspectors noted that the operators performed the surveillance in a formal and controlled manner. The inspectors reviewed the surveillance procedure for technical adequacy and noted that the procedure, with one minor exception discussed below, appropriately implemented the TS surveillance requirements. The inspectors had the following concerns with performance of the surveillance.

4.2.1 Data Collection

Procedure STP-309-0202 specified that operators record several parameters using the emergency response information system (ERIS) computer. Parameters recorded included the time it took for the DG to start, accelerate, and achieve rated speed, voltage, and frequency. A note in Procedure STP-309-0202, Step 7.2.3 stated, "ERIS computer points are preferred for data collection." A note in Step 7.2.4, discussing recording time to rated speed states, "A stopwatch and 1EGS*SIX43B on 1EGS*PNL3B should be used when ERIS computer points are not available." A note in Step 7.2.4.1 states, "V-1EGSB07, STBY D/G B VOLTS on 1H13*P877 and a stopwatch should be used when the ERIS point is not available." A note in Step 7.2.4.3 states, "F-1EGSB07, STBY D/G FREQUENCY, on 1H13*P877 and a stopwatch should be used to measure the time required for the diesel to reach desired frequency if the ERIS point is not available."

Prior to the DG start, the inspectors questioned the operators' use of the stopwatch to collect data since the shift technical advisor had previously indicated to the inspectors that the ERIS computer points were available. The control room supervisor stated that: (1) the ERIS computer was unreliable and had problems with its calibration, (2) operators had always used stopwatches for this surveillance test and were comfortable with the use of the watches, and (3) operators considered the stopwatch method to be the preferred method

for data collection. Subsequently, the operators continued the surveillance, used the stop watches to record the times, and completed the surveillance satisfactorily. Despite the procedure guidance that indicated that the operators will use the ERIS computer when available to collect the data, the operators proceeded to use stop watches and panel meters. The inspectors expressed concern that the failure of the operators to use the ERIS computer points indicated inattention to detail and an obvious deviation from the intent of Procedure STP-309-0202.

The licensee had revised the surveillance procedures associated with the DGs to state that use of the ERIS computer points was the preferred method in order to provide consistent performance trending data. The inspectors concluded that, during performance of Procedure STP-309-0202, operators did not consider that personnel had revised the procedure to address previous concerns. The operations manager stated that the operating crew did not meet his expectations in following recommended data collection methods during testing. Further, the crew failed to meet his expectations for contacting management for additional guidance when questions arise. The operations manager stated that he would discuss these concerns and his expectations with the crew. The licensee verified by interviews with the other operations crews that they would have properly performed the procedure. Because this issue related to human performance, the inspectors considered the operation manager's actions appropriate. This issue had little safety-significance because the measurements taken with the stop watch met the intent of the surveillance even though the computer was the preferred method for trending.

4.2.2 Communications

Procedure STP-309-0202, Step 7.1.9, required the user to establish and maintain communications between the DG room and the control room. The surveillance procedure also contained a note stating that the auxiliary operators could "go off-line" (break communications) to collect the required trending data. The inspectors observed that the auxiliary operator removed the headset as soon as the DG had been started and left the headset off for the 1-hour DG run. The auxiliary operator collected the data at 30-minute intervals but did not maintain any communication with the control room. The inspectors noted, if the control room needed to talk to the auxiliary operator, that control room personnel could have paged the auxiliary operator over the loud speaker system. However, it appeared that the operators did not fully meet the intent of the procedural guidance for maintaining constant communications while collecting the data.

The inspectors discussed this observation with the operations manager who stated that communications met his expectations. The operations manager indicated that personnel would evaluate the procedure to assure that the requirements for communication in the procedure accurately reflected management's expectations.

4.2.3 Procedure Review

The inspectors reviewed Procedure STP-302-0202 for technical adequacy and determined that the procedure met the intent of the TS. However, the inspectors noted that Attachment 4, the posttest control board lineup, referred the operator to the Division I DG local control panel to line up several breakers and switches instead of the Division II local control panel. The inspectors notified the control room supervisor who initiated action to revise the procedure prior to proceeding. Operators revised the procedure and completed the test satisfactorily. The inspectors reviewed the completed copy of the procedure and had no further concerns.

5 ONSITE ENGINEERING (37551)

5.1 Core Thermal Power Heat Balance

In April 1992, the licensee inspected the feedwater flow venturis and identified various fouling mechanisms. The licensee evaluated various methods to perform a backup feedwater flow analysis to ascertain if the core thermal power calculation was accurate. On August 8, 1995, the licensee installed external ultrasonic flow meters called "Leading Edge Flow Meters" to perform initial data collection and assessment.

On August 21, the licensee determined that the data indicated that the feedwater flow venturis were indicating 1.52 percent higher flow than actual. This was of concern to licensee management because these feedwater flow venturis provided an input to the core thermal power calculation and resulted in core thermal power reading erroneously high.

Licensee engineering personnel reviewed the data and determined that the feedwater flow input to the core thermal power calculation in the plant computer could be adjusted down 1.52 percent to reflect actual flow measured by the leading edge flow meter. The licensee reviewed results from several other operating plants, took several months of data for evaluation, carefully evaluated the results, and provided these results to the onsite safety review committee. This process of data collection, evaluation, and approval took approximately 2 years to complete. On October 9, the onsite safety review committee reviewed and approved Procedure REP-0030 "Reactor Heat Balance," Revision 4, which incorporated the use of the leading edge flow meter for calculation of core thermal power. The licensee implemented this procedure and raised core thermal power to reflect actual 100 percent power. The licensee will also continue to monitor the performance of the leading edge flow meters on a monthly basis to determine if further adjustments of the calculations need to be made.

The inspectors reviewed the licensee's methodology and conclusions in developing the new feedwater flow measurement device and determined it to be satisfactory. The inspectors reviewed Procedure REP-0030, Revision 4, and noted that it adequately implemented the new design.

6 PLANT SUPPORT ACTIVITIES (71750)

6.1 Radiation Protection

On September 14, 1995, during observation of maintenance activities, the inspectors noted that radiological postings and barriers were in place and noted that personnel demonstrated good practices and applied video cameras, where practicable, to maintain radiation exposures as low as reasonably achievable. Specifically, the licensee placed cameras inside the RCIC pump room and located a video monitor outside the room for the fire watches to monitor for the presence of a fire inside the room. The inspectors noted that the radiologically controlled area access control point was maintained in an orderly and professional manner.

6.2 Plant Housekeeping/Fire Protection

During the plant tours, the inspectors observed the plant material condition and equipment storage to determine the general state of cleanliness and housekeeping. Housekeeping in the radiologically controlled area was evaluated with respect to controlling the spread of surface and airborne contamination. Housekeeping was observed to be maintained at a high level during the inspection period. The inspectors verified that firefighting equipment and controls conformed with administrative procedures.

6.3 Security

The inspectors periodically observed security practices to ascertain that the licensee implemented the security plan in accordance with procedures, that the search equipment at the access control points remained operational, that security kept the vital area portals locked and alarmed, that personnel allowed access to the protected area were badged and monitored, and that the monitoring equipment was functional. No problems were noted during these observations.

6.4 Emergency Planning

The inspectors toured the Technical Support Center and ensured that this emergency facility was in a state of readiness. Housekeeping was noted to be very good and all necessary equipment appeared to be functional.

6.5 Plant Chemistry

The inspectors reviewed chemical analyses and trend results for conformance with TS and administrative control procedures. Plant chemistry was satisfactory during this inspection period.

7 FOLLOWUP OF CORRECTIVE ACTIONS FOR VIOLATION (92901, 92902)

7.1 (Closed) Violation 458/9413-01: Failure to Adhere to the Fuel Movement Plan

This violation involved a failure to follow procedures in that Fuel Movement Plan FMP-COR-6-01 was not followed when a contracted fuel handling crew, under the direct supervision of a senior reactor operator, performed Step 682 instead of Step 668. This failure to follow procedures became self-evident when the fuel handling personnel attempted to transfer Fuel Assembly LYV284 from Core Location 45-26 to Upper Containment Pool Location R-06, which was already occupied.

The licensee attributed the root cause of this occurrence to no requirement to perform a second check for the refuel spotter. Consequently, the licensee revised Procedure REP-0029, "Fuel Movement," to require that control room operators document each step completed on their copy of the fuel movement plan and confirm the next planned movement step with the refuel senior reactor operator. The inspectors verified that these new requirements had been incorporated into Procedure REP-0029, Revision 1. The inspectors concluded that the new procedure requirements for the control room to second check and document the performance of procedure steps should preclude a repeat of this violation.

7.2 (Closed) Violation 458/9415-01: Two Examples of Inadequate Procedures

The first item of this violation concerned an inadequate MWO that did not contain a step to install a jumper, which would have precluded an inadvertent engineered safety features actuation. The second item of the violation concerned a surveillance procedure that did not provide instructions to prevent an engineered safety features actuation.

As immediate corrective actions, the licensee revised the two procedures and performed the activities properly. These procedures were subsequently rewritten to correct the deficiencies and to include proper human factors. The individuals involved were counseled by plant management. In addition, licensee management conducted briefings with maintenance personnel to emphasize the importance of obtaining the proper cross-disciplinary reviews. The training advisory committee added reference to this violation to maintenance training. The licensee reviewed other 18-month surveillance tests for similar vulnerabilities and found no additional problems. The inspectors reviewed the licensee's corrective actions and determined they were satisfactory.

7.3 (Closed) Violation 458/9419-C5: Failures to Properly Preplan Maintenance Activities

The first example of this violation identified by the inspectors involved four flange nuts missing from a flange in the penetration valve leakage control system without work authorizing their removal. The licensee corrected the discrepant flange, provided training to plant personnel on being sensitive to missing bolts/nuts, and performed equipment walkdowns to ensure that additional problems did not exist. The inspectors reviewed the documentation that indicated that the licensee satisfactorily completed these items. In addition, during plant tours, the inspectors did not identify any examples of missing nuts from safety-related equipment.

The second example of this violation involved cable wrap removed from the cables to an automatic depressurization system relief valve. The licensee attributed the root cause to inadequate work instructions for reinstalling the cable wrap. The licensee revised the applicable procedures, including use of more hold points with specific signoffs, which the inspectors reviewed and found to be satisfactory.

ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

R. J. Alexander, Manager, Project Management
W. R. Brian, Manager, Strategic Planning
E. C. Ewing, Manager, Maintenance
J. J. Fisicaro, Director, Nuclear Safety
J. Holmes, Superintendent, Chemistry
H. B. Hutchens, Superintendent, Plant Security
M. A. Krupa, Manager, Operations
T. P. Lacy, Outage Coordinator
T. R. Leonard, Director, Engineering
L. G. Lewis, Manager, Training
D. N. Lorfing, Supervisor, Licensing
J. R. McGaha, Vice President-Operations
M. B. Sellman, General Manager, Plant Operations
A. Shahkarami, Manager, Mechanical/Civil Engineering
R. G. West, Manager, System Engineering
G. A. Zinke, Manager, Quality Assurance

The above personnel attended the exit meeting. In addition to the personnel listed above, the inspectors contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on October 20, 1995. During this meeting, the inspectors reviewed the scope and findings of the report. The licensee did not take exception to the inspection findings documented in this report. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspectors.