ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.:	50-445; 50-446
License Nos.:	NPF-87; NPF-89
Report No.:	50-445/96-16; 50-446/96-16
Licensee:	TU Electric
Facility:	Comanche Peak Steam Electric Station, Units 1 and 2
Location:	FM-56, Glen Rose, Texas
Dates:	November 10 through December 21, 1996
Inspectors:	A. T. Gody, Jr., Senior Resident Inspector H. A. Freeman, Resident Inspector V. L. Ordaz, Resident Inspector G. M. Good, Senior Emergency Preparedness Analyst R. A. Kopriva, Project Engineer
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ATTACHMENT: Supplemental Information

EXECUTIVE SUMMARY

Comanche Peak Steam Electric Station, Units 1 and 2
NRC Inspection Report 50-445/96-16;50-446/96-16

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

Operations

Operations demonstrated good ownership of the plant during postrefueling outage cleanup inside radiological controlled areas (Section O1.1).

Operators exceeded the reactor power ramp rate procedure limitations during power ascension (Section O1.2).

Control room operators were knowledgeable of annunciators, but failed to communicate them to unit supervision on some instances during power ascension activities (Section O1.3).

Operations surveillances were conducted well, with good communications and independent verification utilized (Section O2.2).

An operator error during initial main turbine loading resulted in a significant reactor coolant system temperature transient and a loss of reactor coolant system letdown (Section O5.1).

An operator inadvertently deenergized a safety bus when the wrong component was operated during an emergency diesel generator surveillance (Section O5.2).

Auxiliary operators were inconsistent in fuse replacement processes, and the inconsistency may contribute to premature fuse holder degradation (Section O5.3).

Maintenance

Electricians exhibited the appropriate level of knowledge and exercised the proper amount of safety awareness during emergent maintenance on a safety-related battery cell (Section M1.1).

Overall, battery maintenance activities were performed well and in accordance with procedural requirements (Section M1.2).

Engineering

While reactor engineering continued to demonstrate technical proficiency, the inspectors again observed minor attention-to-detail deficiencies, mainly of an administrative nature (Section E1.1).

Engineering had appropriately documented and evaluated the lack of breaker coordination for the reactor protection set primary and alternate power supplies (Section E2.1).

Continued excellent use of vendor information led to the identification of unaccounted aluminum in containment preaccess filters. The licensee's decision to replace the filters was conservative (Section E3.1).

Plant Support

The commitment to perform onshift dose assessments was clearly described in the emergency plan and implementing procedures. Further evaluation of the information obtained using the temporary instruction will be conducted by NRC Headquarters personnel (Section P3.1).

Radiation workers were generally knowledgeable of their radiation work permit requirements (Section R4.1).

Report Details

Summary of Plant Status

Unit 1 began this inspection period in Mode 5, making preparations for entering Mode 4 after completion of the fifth refueling outage. Unit 1 entered Mode 1 operations on November 16 and attained 100 percent power on November 22. Unit 1 remained at full power through the end of the inspection period.

Unit 2 began this inspection period at 100 percent power. On December 10, power was briefly lowered to 50 percent as a precaution prior to performing maintenance on an instrument inverter power supply. The unit was returned to full power and remained there through the end of the inspection period.

I. Operations

O1 Conduct of Operations

O1.1 Plant Tours

a. Inspection Scope (71707)

The inspectors conducted periodic plant tours of both units during the inspection period to ascertain the plant material condition and assess the conduct of operations and maintenance.

b. Observations and Findings

The inspectors found that material condition and housekeeping were generally good, with a few exceptions. The inspectors accompanied operators on the Unit 1 postrefueling outage containment close-out inspection. A considerable amount of debris was discovered on the floor from previous maintenance activities. Operators performing the containment close-out inspection appropriately concluded that the Unit 1 containment building was not sufficiently clean for entering Mode 3 and provided good feedback to outage management on what actions needed to be performed. The inspector found that the containment close-out effort was an iterative process that ensured that the containment building was properly cleaned for the operating cycle and that the operations department demonstrated good ownership of the plant. The inspector entered an emergency core cooling system containment sump structure and found that it was clean and free of debris. The inspectors also found that the postrefueling outage cleanup in the radiological controlled areas outside of containment was good.

O1.2 Unit 1 Reactor Power Ramp Rate

a. Inspection Scope (92901 and 92903)

On November 17, the licensee identified that the procedural limit for reactor power ramp rate was exceeded during a power ascension on Unit 1. The inspector reviewed the reactor power records, corrective actions, and fuel design limits associated with the event.

b. Observations and Findings

During power ascension, operators are required to limit power ramp rate to ≤ 3 percent per hour when reactor power is greater than 20 percent, in accordance with Procedure IPO-003A, "Plant Operations." Below 20 percent reactor power, there are no power ramp restrictions. On November 17, Unit 1 operators raised reactor power at approximately 6 percent per hour, until the main generator reached 20 percent, without realizing that it corresponded to 26 percent reactor power.

Operations held reactor power steady for 2 hours to ensure no pellet-to-clad interactions would occur during the planned power ascension. The inspector discussed the 2-hour soak period with reactor engineers, reviewed the vendor recommendations associated with reactor fuel soaking, and found that the licensee's decision to perform the soak was appropriate.

Operators exceeded the power ramp rate because they mistakenly began monitoring the rate when they thought main generator load was equivalent to 20 percent reactor power rather than at the 20 percent reactor power indicated by the nuclear instruments. The licensee stated that Procedure IPO-003A contributed to the misunderstanding and, following a review of the procedure, the inspector agreed. The inspector reviewed the licensee's changes to Procedure IPO-003A and found that they made it very clear when operators were required to begin monitoring reactor power ramp rate.

The inspector reviewed the Unit 1 reactor power records and found that operators misread them since the actual ramp rate was 7.5 percent per hour in lieu of 6 percent per hour. The inspector discussed the actual ramp rates with reactor engineering and reviewed the fuel design requirements to determine if exceeding the power ramp rate procedural limit could induce failures on the Westinghouse and Siemens fuel in the core due to excessive fuel pellet-to-cladding interactions. The inspector found that the Siemens fuel was operated within its design limits since there are no restrictions on Siemens fuel below 87 percent reactor power, and the Westinghouse fuel was operated within its design limits since the ramp rate was below a previously evaluated reactor power ramp rate of 10 percent. The inspector found that operations was not accurate in their interpretation of the reactor power records. However, the inspector agreed with the licensee's conclusion that, although the procedural limit of ≤ 3 percent per hour was exceeded, it was unlikely

that any fuel damage would be caused due to the increased power ramp rate. This licensee-identified and corrected violation is being treated as a noncited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy (NCV 50-445/9616-01).

O1.3 Unit 1 Power Ascension

a. Inspection Scope (71707)

The inspector observed control room operators perform portions of the power ascension following the Unit 1 refueling outage. These included the turbine generator surveillances, reactor criticality, and Mode 1 entry.

b. Observations and Findings

During the power ascension activities, the inspector observed the communications between control room operators and the unit supervisor on both the primary and secondary plant. The inspector identified instances where operators physically acknowledged annunciators on the secondary plant, but failed to properly announce the annunciators and communicate them to the unit supervisor who was in the process of monitoring the reactivity changes and stabilization of the primary plant. The inspector informed the unit supervisor of the observations and he immediately corrected the situation.

Overall, the inspector found that operators maintained continuous and thorough monitoring of the reactivity changes and that operators were knowledgeable of the annunciators. Operators generally exhibited proper communication during evolutions, with some minor exceptions noted above that deviated from management expectations. The inspector found that the communication observations were isolated and that the unit supervisor took the appropriate corrective action.

O2 Operational Status of Facilities and Equipment

O2.1 Periodic Control Board Walkdowns and Log Review

a. Inspection Scope (71707)

The inspectors periodically performed a walkdown of the Units 1 and 2 control boards, reviewed operating logs, and observed the conduct of operations.

b. Observations and Findings

The inspectors noted that the licensee effectively maintained plant equipment in a manner that frequently resulted in no control board annunciators being illuminated. For degraded annunciators, the cause of the problem and the corrective action was

properly identified in plant operating logs and any required compensatory measures were appropriately identified and implemented. Operators were knowledgeable of the cause of alarm conditions and were generally cognizant of corrective actions in progress. Operating logs were maintained in a legible and auditable form and the inspectors found them to be generally complete.

The inspectors noted good communications among operators and the unit supervision, with very few minor exceptions. When communications were weak, the inspectors observed unit supervision correct the problem. Equipment was found to be aligned properly for both operating and standby equipment.

O2.2 Operational Surveillances

a. Inspection Scope (61726)

The inspectors observed all or portions of the following operational surveillance tests:

- Unit 2 Safety Injection Pump 2-01 Operability Test (OPT-204) on November 20
- Unit 2 Safety Injection System Radioactive Leakage Inspection Test (ETP 204B) on November 20
- Unit 2 Train A Safeguards Slave Relay K608 Actuation Test (OPT-466B) on November 21

b. Observations and Findings

The inspectors verified that the surveillances were performed in accordance with procedures and that the equipment was appropriately restored following the surveillance tests. The inspectors reviewed the test results and found that all test requirements were satisfied. Communications between the operators were good, and the independent verification steps in the procedures were performed correctly.

O2.3 Unit 1 Turbine Overspeed Protection System Test

a. Inspection Scope (61726)

On November 16, the inspector observed the Unit 1 turbine overspeed protection system tests. These tests were performed to verify the operability of each mechanical overspeed trip device as required by Technical Specifications. An actual turbine overspeed test, which was conduced in accordance with vendor recommendations, was also observed.

b. Observations and Findings

The inspector reviewed the procedure prior to the surveillance tests and verified that the procedure met Technical Specification requirements. The inspector observed that auxiliary operators, system engineers, and vendor representatives were stationed at the turbine during the surveillance to monitor parameters and identify leaks as the main turbine increased in speed. The inspector noted that work requests were generated for identified oil leaks. During the actual overspeed test, the inspector verified that the turbine tripped at the appropriate limits required by procedure. Overall, the inspector found that the turbine tests were well controlled and implemented in accordance with procedures and Technical Specification requirements.

05 Operator Training and Qualification

05.1 Unit 1 Reactor Plant Transient

a. Inspection Scope (71707)

The inspector evaluated the circumstances surrounding a November 16 reactor plant transient which was caused by raising main turbine generator load too rapidly. Licensee procedures, training, accuracy of simulator modeling, initial corrective actions, and the effectiveness of the licensee's investigation into the transient were reviewed.

b. Observations and Findings

On November 16, while performing a normal plant startup on Unit 1 following a refueling outage, a loss of chemical volume and control system letdown occurred during initial loading of the main generator. The balance of plant reactor operator raised load too rapidly and, as a result, the reactor coolant system pressure and temperature decreased. The unit supervisor ordered main generator load decreased and ordered five separate rod pulls over a 2-minute period for a total of 30 steps of rod motion. Once the reactor plant was stabilized, letdown was reestablished and rods were normalized. The licensee initiated Operations Notification and Evaluation (ONE) Form 96-1455. The inspector noted that the ONE form disposition was marked "Manager's Trend (No Further Action Required)."

On November 21, operations management and the operating crew conducted an informal performance review of the transient. Several issues were identified during the meeting: (1) During the pre-evolutionary brief, the unit supervisor did not discuss the potential transients that could occur with a positive moderator temperature coeffieicent during a main turbine startup nor the associated actions operators should take; (2) The unit supervisor did not establish manual trip criteria; (3) Although the unit supervisor knew that it was the first time the balance of plant reactor operator had started up a main turbine, little direct supervision was provided

to the operator. The inspector noted that the licensee appropriately reclassified the ONE form to a plant incident following the informal performance review.

The inspector reviewed plant operating procedures for power operations and found that the procedure provided clear information concerning the sensitivity of the main generator load control while in the speed reference mode of operation. The procedure also informed operators that two quick depressions of the push button should be sufficient. This transient was initiated when the balance of plant operator pushed the push button four distinct times.

The inspector discussed the transient with the training manager and found that the licensee's training department was actively involved in understanding the causes of the transient and developing corrective actions. The training department evaluated the simulator to determine if the simulator modeled the main turbine loading controls correctly and found that the simulator responded much quicker. The training manager stated that the balance of plant operator may have been mislead by the simulator. The training manager indicated that they planned to incorporate lessons learned into both simulator modeling, if possible, and future training plans.

Although the licensee's investigation into the transient was progressing well, the initial ONE form classification was poor. The inspector planned to continue to follow the licensee corrective actions as an inspection followup item (IFI 50-445/9616-02).

O5.2 Inadvertent De-energization of Unit 2 Safety Bus 2EB4

a. Inspection Scope (71707)

The inspector reviewed the circumstances surrounding the inadvertent de-energization of 480 Vac safety Bus 2EB4. This involved a review of the associated procedure and interviews of personnel involved in the incident.

b. Observations and Findings

On December 12, while performing a surveillance on the Train B emergency diesel generator, the balance of plant operator inadvertently opened the feeder breaker for 480 Vac safety Bus 2EB4 when he attempted to reduce emergency diesel generator load. The operator failed to follow Procedure OPT-214B,"Diesel Generator Operability Test," when he manipulated the incorrect switch. The unit supervisor appropriately directed operators to enter abnormal operating procedures to respond to and restore the de-energized bus.

The inspector interviewed several personnel involved in the incident and discussed corrective actions with licensee management. Operations management reemphasized self-verification with all operators.

The failure to follow Procedure OPT-214B was a violation of Technical Specification 6.8.1. This licensee-identified and corrected violation is being treated as a noncited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy (NCV 50-446/9616-03).

O5.3 Unit 2 Loose Fuse Clip Event

a. Inspection Scope (92903)

The inspector reviewed the licensee's corrective actions following an inadvertent start of the Unit 2 turbine-driven auxiliary feedwater pump when one of the steam admission valves failed open due to the loss of control power.

b. Observations and Findings

On November 30, the Unit 2 turbine-driven auxiliary feedwater pump started due to a failed open steam admission valve. Operators immediately closed the upstream isolation valve to the steam admission valve and secured the turbine-driven auxiliary feedwater pump. The licensee's troubleshooting revealed that the steam admission valve control power fuse clips were loose. The licensee tightened the fuse clips and replaced the fuse to correct the problem. The inspector verified that the system was properly restored and that the Technical Specification was exited.

The inspector questioned eight auxiliary operators on how they replaced fuses. The inspector found that there were at least four different methods used in the field for installing fuses. There have been several previous events associated with loose fuse clips in the past. The inspector was concerned that inconsistent fuse replacement techniques could have contributed to the failures. The inspectors will review the adequacy of the corrective actions to the fuse control program associated with this and previous events as an inspection followup item (IFI 50-445(446)/9616-04).

O5.4 Conclusions

The inspectors concluded that, based on the examples contained in Sections 01 and 05, poor operator attentiveness, supervisory oversight weaknesses, and a lack of operator self-verification contributed to the discussed operator errors. The inspectors noted that a number of the errors were made by newly qualified operators and that the errors may reflect training weaknesses. This negative trend in operator performance concerned the inspectors. When questioned, licensee management agreed that the individual operator performance was not as expected, but stated that they believed the examples were isolated and did not represent a trend in the overall performance of the operations department. The inspectors will continue to review the licensee's corrective actions for the identified followup items.

II. Maintenance

M1 Conduct of Maintenance

M1.1 Unit 2 Emergent Maintenance on Class 1E Station Battery Cell

a. Inspection Scope (62707)

The inspector observed an emergent maintenance activity to raise the low specific gravity of a Class 1E station battery cell above the Technical Specification requirement.

b. Observations and Findings

The inspectors attended the prejob briefing and noted that the discussions appropriately included the details of the activity and the contingency measures to be taken in the event that the hazardous electrolyte solution spilled onto the electricians or the floor. During the activity, the inspector found that the electricians donned the appropriate safety gear to add the electrolyte to the battery cell. Electricians removed all jewelry and loose items to prevent entry into the cell. After the work activity, the inspector verified that the specific gravity was satisfactory and met the Technical Specification limit of ≥ 1.195. The inspector found that the electricians were knowledgeable of the activity and exercised the proper amount of safety awareness.

M1.2 Unit 2 Class 1E Station Batteries Weekly Inspection

a. Inspection Scope (61726)

The inspector observed portions of the weekly battery surveillance tests for the Unit 1 and Unit 2 Train B batteries on December 5.

b. Observations and Findings

The inspector observed the measurements of the individual cell voltage, the electrolyte level, the electrolyte temperature, and the specific gravity. The inspector also verified that the calculated values for specific gravity appropriately corrected the actual electrolyte temperature and level in accordance with the procedural requirements. The electricians were questioned about which posts were used to measure voltage for battery cells in the double bus bar configuration. The electricians indicated that the procedure only specified how to measure voltage across single bus bar configurations. When the electricians reperformed the measurement on different posts of the bus bars, the inspector verified that the same voltage reading resulted. The foreman informed the inspector that he planned to submit a procedure change request to clarify how to measure voltage across batteries with the double bus bar configuration. Overall, the inspector found that

the maintenance activity was performed well and in accordance with procedural requirements. The electricians exercised the appropriate level of electrical safety awareness and were knowledgeable of the battery cell requirements.

M1.3 Inverter 2C3 Maintenance

a. Inspection Scope (62707)

The inspector attended pre-evolutionary briefings, observed the conduct of maintenance, reviewed abnormal operating procedures, discussed planned operator compensatory actions with operators, and discussed the conduct of the on-line maintenance with licensee management.

b. Observations and Findings

On December 8, nonsafety-related Inverter 2C3 experienced several intermittent "loss of synch" and "bypass out of limits" alarms. The licensee transferred the inverter to bypass and found that the oscillator board had failed. The oscillator board was replaced and the inverter was returned to service. Several minutes after returning the inverter to service, the "loss of synch" and "bypass out of limits" alarms were again received. Because the alarms were locked in, the inverter could not be transferred to bypass. The licensee reduced reactor power to 50 percent, manually synchronized and transferred the inverter to bypass, and replaced the oscillator board again.

The inspector found that the licensee was thorough in reviewing of the loss of 118Vac Bus 2C3 power. The licensee duplicated the event in the simulator and trained operators on the proper response. The licensee's decision to reduce power was conservative and based on preventing a significant transient and possible safety injection initiation in the unlikely event Bus 2C3 were to lose power.

The inspector planned to follow the licensee's root cause determination and future corrective actions as an inspection followup item (IFI 50-446/9616-05).

III. Engineering

E1 Conduct of Engineering

E1.1 Conduct of Unit 1 Reactor Physics Tests

a. Inspection Scope (61726)

On November 20, during plant startup, the inspector observed the licensee perform portions of the reactor physics test during startup in accordance with Work Orders 5-96-500386-AA and 5-96-500702-AD. The inspector reviewed the work orders and associated procedures.

b. Observations and Findings

The inspector found that the reactor engineer conducting the testing was knowledgeable of the procedure and was following the procedure. The inspector also found that necessary prerequisite conditions were met. While reviewing the work order cover sheets, the inspector noted that none of the special instructions (radiation work permit, clearance, fire impairment, etc.) had been filled in prior to starting the testing for Work Order 5-96-500386-AA. The inspector verified that none of the special conditions were required for the testing. The inspector concluded that the unfilled blanks in the work order represented a lack of attention to detail by both the maintenance activity (reactor engineering) and the work start approval authority (operations).

E2 Engineering Support of Facilities and Equipment

E2.1 Review of Final Safety Analysis Report (FSAR) Commitments

A recent discovery of a licensee operating their facility in a manner contrary to the Final Safety Analysis Report (FSAR) description highlighted the need for a special focused review that compares plant practices, procedures, and parameters to the FSAR description.

While performing the inspections discussed in this report, the inspectors reviewed the applicable portions of the FSAR that related to the areas inspected. During the inspection, several inconsistencies were noted, both internal to the FSAR, and between the FSAR and the emergency operating procedures for the switchover of the emergency core cooling system from injection to recirculation. See Section E2.3 for a discussion of the inconsistencies.

E2.2 Loss of Reactor Protection Set Channel III

a. Inspection Scope (71707, 37551)

On November 5, the primary dc power supply shorted and caused a loss of power to Reactor Protection Set Channel III in Unit 2. The alternate dc power supply did not maintain power to the cabinet because the distribution breaker on the load center had tripped open. The licensee identified that the distribution breaker was of a smaller rating (20 amps) than the primary and alternate dc power supply fuses (30 amps). The inspector reviewed the failure to determine if the licensee had an unanalyzed breaker coordination problem. The review included the licensee's investigation into the failure and design documents.

b. Observations and Findings

The licensee documented the failure on ONE Form 96-1379. The inspector noted that the licensee had previously identified and documented this lack of breaker

coordination in Calculation TNE-EE-CA-0008-557. The inspector reviewed a portion of Calculation 2-EE-0002 and noted that the full load current for the reactor protection set channel was approximately 8.7 amps. Since only one of the power supplies provided this current while the other was in standby, the inspector concluded that the 20 amp distribution breaker was adequate. The licensee showed the inspector that the vendor manual for the protection set specified 30 amp fuses for both the primary and alternate power supplies. The licensee informed the inspector that the distribution breaker could not be upgraded without upgrading or reanalyzing the distribution panel, the cables, and the cable trays and fill analysis.

The inspector reviewed licensing documents, including the FSAR, and did not identify any requirement or analysis which assumed that each protection set had two independent power supplies. The inspector concluded that the lack of breaker coordination between the distribution panel and the primary and alternate power supplies did not have any safety impact. The inspector found that the licensee had appropriately documented this design deficiency.

E2.3 Emergency Core Cooling System Switchover from Injection to Recirculation

a. Inspection Scope (71707, 37551)

The inspectors performed a detailed walkdown of the Unit 1 centrifugal charging pumps to verify their function as high head injection pumps. The inspectors reviewed system drawings, the FSAR, Technical Specifications, and emergency operating procedures.

b. Observations and Findings

The inspectors found that the portion of the centrifugal charging system inspected was maintained in accordance with design documents. However, the inspectors noted that the emergency response procedure for the switchover from injection to recirculation, Procedure EOS-1.3A, Revision 6, was not consistent with the steps listed in FSAR Table 6.3-7 in that Procedure EOS-1.3A contained nine additional steps than those listed in the FSAR. Additionally, Table 6.3-7 stated that Steps 1-6 were required to align the suction of the emergency core cooling system pumps to the containment recirculation sumps, while the analysis listed on Table 6.3-11, "RWST [refueling water storage tank] Outflow Large Break - Worst Single Failure," analyzed the water usage only for the first five steps. Finally, FSAR Section 6.3.2.8 stated that 94,179 gallons were available for transfer while Table 6.3-11 stated that 90,166 gallons were required to complete the switchover. Using the same method as Table 6.3-11, the water usage would exceed the available water if the additional steps listed in the emergency operating procedure were analyzed.

The inspectors found that the analysis contained in the FSAR was not consistent with the emergency operating procedure and that the FSAR was not internally

consistent. The licensee documented the inspectors' findings in One Form 96-1555 and initially concluded that operability was not affected. Because this issue was found at the end of the inspection period, the inspectors characterized the issue as an unresolved item (URI 50-445(446)/9616-06). The inspectors will review whether the licensee had adequately analyzed the additional steps prior to implementing the changes to Procedure EOS-1.3A. Additionally, the inspectors will verify the licensee's calculations for required water versus available water to confirm the licensee's conclusion that adequate inventory exists for the worst case accident scenario.

E3 Engineering Procedures and Documentation

E3.1 Containment Combustible Gas Control (37551, 71707)

a. Inspection Scope

Several ONE forms were recently issued concerning containment combustible gas control. The inspector reviewed the licensee's program for controlling the addition of aluminum or zinc to containment and the resolution of the ONE forms.

b. Observations and Findings

The inspector noted that two of the ONE forms were issued to document the identification that the preaccess filtration units have unaccounted aluminum in their construction. The identification was the result of followup by the licensee on vendor information dated August 21, 1996. The licensee's ONE forms were issued 2 weeks later. The inspector found the licensee's conclusion that the filters did not represent an operability concern to be appropriate. The inspector concluded that this was another example of the good use of vendor information.

A third ONE form documented a recent design modification which used galvanized steel conduits instead of stainless steel conduits. The inspector reviewed how this additional amount of zinc affected the amount of scaffold material to be left inside of containment during power operations. The inspector noted that the licensee had identified that a mistake had been made in the amount of acceptable scaffold material but that the licensee had corrected the amount prior to entering Mode 6. The inspector found that the process for determining the amount of acceptable scaffolding involved several handoffs between different organizations which may have contributed to the mistake and that the licensee was considering modifications to the process. The inspector found that the combustible gas control process was acceptable.

E8 Miscellaneous Engineering Issues

E8.1 (Closed) Unresolved Item 50-446/9610-01: inservice testing program scope for relief valves. In NRC Inspection Report 50-445/96-10; 50-446/96-10, the

inspectors identified that the licensee's inservice testing program scope did not meet the current NRC position that ASME/ANSI OMa, Part 10, defined the inservice testing program scope for relief valves. The licensee's program was based on the definition provided by ASME/ANSI OMa, Part 1, which eliminated approximately 77 relief valves per unit. The licensee decided to incorporate the inservice testing program scope defined by ASME/ANSI OMa, Part 10, for relief valves in order to resolve questions in this area.

E8.2 (Closed) Licensee Event Report 50-446/96002: missed surveillance for turbine overspeed. This licensee event report was a minor issue and was closed.

E8.3 (Closed) Unresolved Item 50-445(446)/9608-02: failure to maintain the facility consistent with the FSAR. This item was left unresolved to determine the appropriate enforcement which involved a discrepancy between the as-built condition and the FSAR description of the water-tight integrity of the component cooling water pump rooms. As reported earlier, the inspectors noted that the licensee had appropriately analyzed the consequences of changing the water-tight integrity of the rooms prior to changing the design. The inspectors noted that the licensee's failure to update the FSAR was a minor administrative error. This failure constitutes a violation of minor significance and is being treated as a noncited violation, consistent with Section IV of the NRC Enforcement Policy (NCV 50-445(446)/9616-07).

IV. Plant Support

R4 Staff Knowledge and Performance

a. Inspection Scope (71707, 71750)

During tours in the radiological controlled areas, the inspectors questioned licensee personnel on their knowledge of the radiation work permit requirements.

b. Observations and Findings

The inspectors found that the radiation workers were generally knowledgeable of the radiation work permit requirements.

P3 Emergency Preparedness Procedures and Documentation

P3.1 Licensee Onshift Dose Assessment Capabilities (TI 2515/134)

a. Inspection Scope

Using Temporary Instruction 2515/134, the inspectors gathered information regarding:

- Dose assessment commitment in emergency plan
- Onshift dose assessment emergency plan implementing procedure
- Onshift dose assessment training

b. Observations and Findings

On December 16, 1996, the inspectors conducted an in-office review of the emergency plan and implementing procedures to obtain the information requested by the temporary instruction. The inspectors conducted a telephone interview with the licensee on December 18, 1996, to verify the results of the review. Based on the documentation review and licensee interview, the inspectors determined that the licensee had the capability to perform onshift dose assessments using real-time effluent monitor and meteorological data and that the commitment was clearly described in the emergency plan and implementing procedures.

c. Conclusion

The commitment to perform onshift dose assessments was clearly described in the emergency plan and implementing procedures. Further evaluation of the information obtained using the temporary instruction will be conducted by NRC Headquarters personnel.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on December 19, 1996. The licensee acknowledged the findings presented and did not identify any concerns with the inspectors characterization.

The licensee did not identify any information that was reviewed during the inspection period as proprietary.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

D. E. Buschbaum, Technical Compliance Manager
D. L. Davis, Nuclear Overview Manager
J. J. Kelley, Vice President, Nuclear Engineering and Support
M. R. Killgore, Nuclear Engineering Manager
M. L. Lucas, Maintenance Manager
D. R. Moore, Operations Manager
R. D. Walker, Regulatory Affairs Manager

INSPECTION PROCEDURES USED

37551	Onsite Engineering
61726	Surveillance Observations
62707	Maintenance Observations
71707	Plant Operations
71750	Plant Support Activities
92901	Followup - Operations
92903	Followup - Engineering
TI 2515/134	Licensee Onshift Dose Assessment Capabilities

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-445/9616-01	NCV	exceeded power ramp rate following refueling
50-445/9616-02	IFI	operator induced reactor plant transient
50-446/9616-03	NCV	inadvertent trip of safety bus during diesel surveillance
50-445(446)/9616-04	IFI	corrective actions for lose fuse clips
50-446/9616-05	IFI	Inverter J3 card failure
50-445(446)/9616-06	URI	ECCS swapover, FSAR discrepancies
50-445(446)/9616-07	NCV	CCW pump rooms not watertight as per FSAR

Closed

50-446/9610-01	URI	inservice testing program scope for relief valves
50-445/9616-01	NCV	exceeded power ramp rate following refueling
50-446/96002	LER	missed surveillance for turbine overspeed
50-445(446)/9608-02	URI	failure to maintain the facility consistent with the Final Safety Analysis Report
50-446/9616-03	NCV	inadvertent trip of non-safety bus
50-445(446)/9616-07	NCV	CCW pump rooms not watertight as per FSAR

LIST OF ACRONYMS USED

IFI	inspection followup item
FSAR	Final Safety Analysis Report
ONE form	Operations Notification and Evaluation form
Mwe	mega-watts electric
NCV	noncited violation
URI	unresolved item