APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 50-445/94-15
50-446/94-15

Licenses: NPF-87
NPF-89

Licensee: TU Electric
Skyway Tower
400 North Olive Street, L.B. 81
Dallas, Texas

Facility Name: Comanche Peak Steam Electric Station, Units 1 and 2

Inspection At: Glen Rose, Texas

Inspection Conducted: May 29 through July 9, 1994

Inspector: K. Kennedy, Resident Inspector
W. McNeill, Inspector, Engineering Branch
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Approved: Melanie A. Miller 7/29/94
M. A. Miller, Acting Chief, Project Branch B Date

Inspection Summary

Areas Inspected (Units 1 and 2): Routine, unannounced inspection, including onsite followup of events; plant operations; maintenance and surveillance observations; plant support; and followup on previously identified items.

Results (Units 1 and 2):

- Plant Operations

Operator response to the Unit 2 reactor trip was excellent. Timely actions were taken to secure the turbine-driven auxiliary feedwater pump, thus minimizing the cooldown of the reactor coolant system. Control room operators recognized an abnormal position indication for a feedwater isolation valve and took action to locally verify that it was in the proper position. Instrumentation and controls technicians responded well to complete a surveillance in progress at the time of the trip on a source range channel and return it to service (Section 2.1).

Weaknesses were identified in the licensee's implementation of the scaffolding program. Monthly scaffolding inspections were not being performed in a timely manner, and two scaffolds were identified which were not being properly tracked in the licensee's tracking system, resulting in these scaffolds remaining in the plant longer than necessary (Section 3.1.1).

Plant equipment was maintained in good material condition. With a few exceptions, equipment problems were identified with work request tags. Exceptions identified by the inspectors were minor in nature (Section 3.1.2).

The inspectors reviewed licensee records since December 1993 and found that the use of overtime for licensed operators was consistent with regulatory requirements. Deviations to the overtime limitations were few, well managed, and appropriately documented (Section 3.2).

Walkdowns of the Unit 2 containment penetration isolations and locked components in the Unit 1 chemical and volume control system (CVCS) and concentrated boric acid system revealed that all components were properly positioned and locking devices were properly attached (Sections 3.3 and 3.4).

- Maintenance

The performance of maintenance and surveillance activities was very good. Maintenance and surveillance activities were conducted in accordance with applicable work orders and procedures. Personnel obtained proper work authorization, required clearances were properly hung, and proper radiological work practices were observed during the performance of these activities. Quality Control personnel were present to witness maintenance activities, when required (Sections 4 and 5).

The inspectors identified several examples of poor work planning which contributed to delays in the completion of maintenance on a spent fuel pool (SFP) cooling crosstie valve. As a result, SFP cooling was secured to the Unit 1 SFP longer than planned (Section 4.2.1).

The inspectors identified 15 work request tags, attached to plant equipment, which were determined to be invalid, that is, there was no open work order or action request associated with these work request tags. In three instances, the tags presented a barrier to the identification and performance of work on safety-related components. The failure to remove work request tags from safety-related equipment following the voiding of action requests, work orders, or at the completion of work, without supervisory concurrence, was identified as a violation of Technical Specification 6.8.1. The inspectors determined that corrective actions for a similar violation identified in NRC Inspection Report 50-445/92-14; 50-446/92-14 were not effectively incorporated into the licensee's procedures which governed the work control process (Section 4.3).

- Plant Support

Appropriate radiation protection and as low as reasonably achievable practices and controls were observed during plant tours and observations of maintenance and surveillance activities during this inspection period (Section 4).

Summary of Inspection Findings:

- One violation was identified (445/9415-01; 446/9415-01) (Section 4.3).
- Inspection Followup Item 445/9335-01; 446/9335-01 was reviewed and remained open (Section 6).

Attachment:

- Persons Contacted and Exit Meeting

DETAILS

1 PLANT STATUS

Unit 1 remained at full power during this inspection period.

Unit 2 began the inspection period in a midcycle outage with the plant in Mode 5. Following completion of modification and repair of the containment spray system, the plant was taken critical on June 19 and returned to full power operation on June 22. On June 27, Unit 2 experienced a main turbine generator electrical trip which caused a reactor trip. The cause of the trip was determined to be a short circuit in the main generator Phase B, neutral side, current transformer leads which caused the actuation of a protection relay on the main generator. The leads for all six of the main generator's current transformers were replaced. Following completion of troubleshooting and repair of Emergency Diesel Generator (EDG) 2-01, which had experienced previous problems unrelated to the reactor trip, the unit was returned to full power on July 1. On July 8, the licensee commenced a normal reactor shutdown to Mode 3 after determining that action was required to correct a high temperature condition which existed on the main generator current transformer leads and associated conduit. The licensee replaced the leads for the six current transformers, replaced the associated conduit, and was in the process of restarting the plant at the end of the inspection period.

2 ONSITE FOLLOWUP OF EVENTS (93702)

2.1 Unit 2 Reactor Trip

On June 27 at 4:54 p.m., with the plant operating at 100 percent power, Unit 2 experienced a reactor trip due to an electric trip of the main turbine generator. All systems responded as expected. In response to the trip, control room operators carried out the immediate actions of Emergency Operating Procedure EOP-0.0B, Revision 0, "Reactor Trip or Safety Injection," verified that all critical safety function status trees were satisfied, and transitioned to Procedure EOS-0.1B, Revision 0, "Reactor Trip Response." Operators then transitioned to Procedure IPO-009, Revision 1, "Plant Equipment Shutdown Following a Trip," to stabilize the plant following the trip. During their initial trip response, operators secured the turbine-driven auxiliary feedwater pump to prevent excessive cooldown of the reactor coolant system. They also observed that the control board position indication for Feedwater Isolation Valve 2-04 indicated that the valve was in the midposition following the feedwater isolation. Operators locally verified that the valve was closed and found that movement of the limit switch corrected the indication problem.

At the time of the trip, EDG 2-01 was out of service for troubleshooting associated with problems observed during its operation earlier in the day, and Source Range Channel N-32 was out of service while instrument and controls technicians performed an analog channel operational test (ACOT). Technicians completed the ACOT and, during the restoration of Source Range Channel N-32, a

source range flux doubling signal was generated causing the charging pump suction to shift from the volume control tank to the refueling water storage tank. Control room operators verified that a flux doubling condition did not exist and restored charging pump suction to the volume control tank.

The licensee determined the cause of the main turbine generator trip to be a short circuit in the leads of the main generator Phase B, neutral side, current transformer. The licensee found that the current transformer leads were brittle and cracks were observed in the insulation. Sections of the Phase B, neutral side, current transformer leads were missing insulation. The licensee determined that deterioration of the insulation on the current transformer leads resulted in the conductor shorting to ground and caused the actuation of a protection relay on the main generator. Based on these findings, the licensee replaced the leads on all six of the main generator current transformers. Following completion of the troubleshooting and repairs of emergency diesel generator 2-01, Unit 2 was restarted and returned to full power on July 1.

Following the return to power operation, additional monitoring of the main generator terminal bushings revealed elevated temperatures in the conduit for the neutral phase B. The licensee concluded that the high temperatures resulted from electromagnetic-induced heating in the ferromagnetic material of the conduit. The unit was shut down on July 9, and the conduit sections on both the line and neutral conductors were replaced with aluminum which is not susceptible to electromagnetic heating. Also, the cabling was replaced with a higher temperature rated cable. Unit 1 was not affected because its conduits were stainless steel and not susceptible to the induced heating. Unit 1 conduit temperatures were between 130 and 150 degrees F, while the Unit 2 conduit temperatures, in localized areas, were as high as 510 degrees F prior to the repairs. Although not necessary, the licensee intended to replace the Unit 1 cable with the higher temperature cable. The licensee's corrective actions were thorough and prompt and demonstrated an appropriately conservative operational philosophy.

2.2 Conclusion

Operator response to the Unit 2 reactor trip was excellent. Timely actions were taken to secure the turbine-driven auxiliary feedwater pump, thus minimizing the cooldown of the reactor coolant system. Control room operators recognized an abnormal position indication for a feedwater isolation valve and took action to locally verify that it was in the proper position. Instrumentation and controls technicians responded well to complete a surveillance in progress at the time of the trip on a source range channel and return it to service. The licensee's actions associated with the turbine generator repair were comprehensive and demonstrated an appropriate operating philosophy.

3 PLANT OPERATIONS (71707)

This inspection was performed to ensure that the licensee operated the facility safely and in conformance with license and regulatory requirements and that the licensee's management control systems effectively discharged the licensee's responsibilities for safe operation.

The inspectors conducted control room observations and plant inspection tours and reviewed logs and licensee documentation of equipment problems. Independent verification of safety systems status and Technical Specifications limiting conditions for operation, verification of corrective actions, and review of facility records were also performed.

3.1 Plant Tours

3.1.1 Scaffolding

During a tour of Units 1 and 2 on June 30, the inspectors identified several deficiencies associated with scaffolding erected in the plant which indicated weaknesses in the licensee's implementation of the scaffolding program as described in Procedure STA-690, Revision 0, "Scaffold Erection and Control."

A "Scaffold Safe Tag" attached to scaffolding in the Unit 1 Penetration Valve Room 1-088 indicated that the scaffold had been erected on December 6, 1993, and had last been inspected on January 6, 1994. The inspector noted that the tag did not have the standard scaffold identification number written on it used to identify the scaffolding for tracking purposes. The inspector did not identify any concerns with the construction or placement of the scaffolding. The licensee indicated that this was one of many scaffolds erected to support work associated with modifications made to Unit 1 Thermolag and had been overlooked for removal following the completion of this work. The scaffold did not have the standard tracking number on the tag because it had been erected by the contractor who was performing the work. The licensee indicated that the scaffold would be removed.

Scaffolding was identified in the Unit 2 Train B switchgear room which had an "Unsafe Do Not Use" tag attached to it. The tag did not have a tracking number and did not indicate when the scaffold was erected or who had erected it. Additionally, there was no indication on the tag that the scaffold had been receiving monthly inspections. A radiation survey form attached to the scaffold indicated that a survey had been conducted on March 8, 1994. The inspector did not identify any concerns with the construction or placement of the scaffolding. The licensee indicated that this scaffold had been erected in June 1993 to support work to be performed on an equipment hoist. At the time of the inspector's observation, the work on the hoist was scheduled for August 1994. The licensee indicated that the scaffold would be removed and rebuilt prior to performance of the scheduled work.

The inspectors noted that a number of scaffolds throughout the plant had received their last monthly inspection on May 24 and 25, 1994. Since the

inspector's walkthrough occurred on June 30, the monthly inspections (on a calendar month basis) would soon be delinquent. The inspectors also identified two scaffolds which were in contact with plant equipment. Scaffold PMS 94-488 was in contact with the clutch lever of Valve 2-8351C, the Reactor Coolant Pump 2-03 seal water injection valve, although it did not appear that operation of the clutch lever would have been prevented. The second example was inspected by the licensee and found acceptable. The inspector found that Procedure STA-690 did not provide any guidelines for minimum clearances between scaffolding and safety- related components.

In response to these observations, the licensee initiated Operations Notification and Evaluation (ONE) Form 94-898 to document the failure to perform monthly scaffold inspections. The licensee indicated that a walkdown of all scaffolding would be conducted to reinspect and retag scaffolding as required. The two scaffolds identified by the inspector to be in contact with plant equipment were inspected and the scaffold which was in contact with the clutch lever was repositioned. In addition, the licensee indicated that the methods used to track and tag scaffolding would be reviewed to identify potential improvements.

3.1.2 Material Condition

Plant tours conducted during this inspection period revealed that plant equipment was maintained in good material condition. Exceptions identified by the inspectors were minor in nature and were discussed with the licensee. Where appropriate, the licensee wrote work requests to address the problem.

The inspectors noted that spring can Support CC-1-044-002-A43S, located 2.5 feet south of Valve 1CC-0171, component cooling water pump suction crosstie, was emitting a loud, intermittent, and high pitched noise that was associated with only a small amount of line vibration. Further examination revealed that the support was misaligned to an extent that the spring was rubbing against the body of the can. The licensee examined the support and determined that the design function of the spring can was not adversely affected by the installed condition. The licensee's disposition was documented in Technical Evaluation (TE) 94-000849-00-00, dated July 8, 1994. The inspectors reviewed the TE and agreed that the support was operable in the short term, but felt that the licensee should remain cognizant of the condition and whether it worsens in order to assess any long-term degradation.

3.2 Licensed Operator Overtime

The inspectors reviewed the licensee's use of overtime for licensed operators for the period from December 1993 to June 1994 and found that the use of overtime for licensed operators was consistent with regulatory requirements. The inspector noted that the licensee had authorized a total of 11 deviations to the overtime limitations described in STA-615, Revision 4, "Staff Work Hours." All of the deviations reviewed involved individuals working more than 72 hours in a 7-day period and were documented and approved on Form STA-615-1, "Overtime Deviation Authorization." Most of the deviations were authorized

prior to the employees exceeding the overtime limits. However, the inspector identified two instances in which authorization was approved after the overtime limits had already been exceeded. Both of these deviations were listed on the same authorization form. Given the isolated nature of this occurrence, the inspectors did not consider any further action by the licensee necessary.

3.3 Unit 2 Containment Penetration Isolation Verification

Utilizing Form OPT-218B-1, "Containment Penetration Non-Automatic Isolation Component (ORC) Position Verification Data Sheet," the inspectors verified that the Unit 2 non-automatic containment penetration isolations were in their proper position or condition. All penetrations observed were in their correct position, locking devices were properly attached, and caps and flanges were properly in place.

3.4 Unit 1 Walkdown of Selected Locked Components

The inspectors walked down the Unit 1 CVCS and the concentrated boric acid system to verify that all components required to be in a locked position were properly positioned and locked. Forms OWI-103-1103, "Operations Department Unit 1 Chemical and Volume Control System Locked Component List," and OWI-103-1105, "Operations Department Unit 1 Concentrated Boric Acid System Locked Component List," were utilized for the walkdown. All components appeared to be properly positioned with the appropriate locking device attached. During the walkdown of the concentrated boric acid system, the inspector observed a section of flexible conduit associated with the system's heat tracing which did not appear to be properly supported. The licensee initiated a work request to follow up on this observation.

3.5 Probabilistic Risk Analysis

The inspectors reviewed the licensee's application of the results of the Individual Plant Examination to the daily operation and maintenance of the plant. Procedure ODA-102, "Conduct of Operation," Appendix D, provided guidance to the operators for reviewing, preparing for, and conducting a high risk activity. Appendix C to Procedure ODA-102 provided guidelines for reviewing the impact that testing and work activities would have on plant operations. These guidelines addressed the operational impact to the plant of the planned activities. However, quantified risk estimates derived from the Individual Plant Examination were not available for these planned activities. The licensee indicated that it planned to have quantified risk measures available for use by operations personnel sometime in the future.

3.6 Conclusion

Weaknesses were identified in the licensee's implementation of the scaffolding program. Monthly scaffolding inspections were not being performed in a timely manner, and two scaffolds were identified which were not being properly

tracked in the licensee's tracking system, resulting in these scaffolds remaining in the plant for longer than necessary.

Plant equipment was maintained in good material condition. With a few exceptions, equipment problems were identified with work request tags. Exceptions identified by the inspectors were minor in nature.

The inspectors reviewed licensee records since December 1993 and found that the use of overtime for licensed operators was consistent with regulatory requirements. Deviations to the overtime limitations were few, well managed, and, in general, appropriately documented.

Walkdowns of the Unit 2 containment penetration isolations and locked components in the Unit 1 CVCS and concentrated boric acid system revealed that all components were properly positioned and locking devices were properly attached.

4 MAINTENANCE OBSERVATIONS (62703)

During this inspection period, the inspectors observed and reviewed the selected maintenance and activities listed below to verify compliance with regulatory requirements and licensee procedures, required quality control department involvement, proper use of safety tags, proper equipment alignment, appropriate radiation worker practices, calibrated test instruments, and proper postmaintenance testing. Specifically, the inspectors witnessed portions of the following activities:

- Corrective maintenance on Unit 1 Safety Chiller 1-05 performed in accordance with Work Order 1-94-068974-00.

- Preventive maintenance performed on Unit 2 as directed by Work Orders MM 3-94-324310-02 and MM 3-94-324311-02, "Cleaning Bearing Strainers on Station Service Water Pump."

- Corrective maintenance performed on Unit 2 as directed by Work Order 1-94-071148-00, "Troubleshoot, Rework, Replace 2-TV-2370B Output Circuit."

- Preventive maintenance performed on Unit 2 as directed by Work Order 3-93-328196-01, Procedures MSE-GO-0010, Revision 2, "Metering Device Calibration," and MSE-GO-0020, Revision 1, "Relay Calibration," to calibrate meters and relays on 125 vdc Battery Charger BC2ED4-1.

- Corrective maintenance on SFP cooling crosstie Valve XSF-0011 performed in accordance with Work Order 1-93-034890-00 and MSM-CO-8803, "Borg-Warner Bolted Bonnet Gate Valve Maintenance," Sections 8.3 - 8.5, "Valve Disassembly, Inspection, and Valve Assembly."

4.1 Spent Fuel Pool Maintenance

On June 23, inspectors observed the licensee perform corrective maintenance on SFP cooling cross tie Valve XSF-0011 in accordance with Work Order 1-93-034890-00 and Procedure MSM-CO-8803, "Borg-Warner Bolted Bonnet Gate Valve Maintenance," Sections 8.3 - 8.5, "Valve Disassembly, Inspection, and Valve Assembly." The work order indicated that Valve XSF-0011 leaked by when fully closed.

This maintenance activity required that both trains of SFP cooling be secured. Prior to the performance of the maintenance, the licensee temporarily secured cooling to the Unit 1 SFP to determine the heat up rate of the SFP. Using this data, TE 94-0086-00-00 determined that cooling to the SFP could be secured for up to 60 hours without excessive pool overheating. The licensee established a contingency plan should the pool overheat during this activity. This plan was documented in TE 94-700-00-00. Based on the scope of work planned, the licensee estimated that both trains of SFP cooling would be secured for approximately 20 hours.

The inspectors identified several examples of poor work planning which contributed to the maintenance activity lasting longer than originally scheduled. Prior to the start of the activity, the work crew noted that the work order did not contain instructions for the removal of the valve's chain operator adapter. The licensee revised the work order to add the adapter removal. Then, work was stopped shortly after it began because the scaffolding erected for the job interfered with the disassembly of the valve. The scaffolding was repositioned. The activity was delayed again when it was determined that the rigging installed for the removal and disassembly of the valve did not allow for the disassembly of the valve. New rigging was installed. These delays contributed to spent fuel pool cooling being secured for approximately 7 hours more than originally planned.

The inspector noted that the procedure used did not instruct the work crew to back seat the valve before disassembly. The licensee agreed to revise the procedure to require the valve to be back seated for disassembly.

4.2 Preventive Maintenance on Strainers

On June 27 inspectors observed the licensee perform preventive maintenance on the Unit 2 station service water pump bearing strainers in accordance with Work Orders MM 3-94-324310-02 and MM 3-94-324311-02, "Cleaning Bearing Strainers on Station Service Water Pump."

The mechanic found that the strainers were significantly clogged (90 percent) and noted this in the comments section of the work order. Procedure STA-734, "Service Water System Fouling Monitoring Program," required that the service water system engineer be notified of any significant findings identified during the performance of preventive maintenance. However, the inspector noted that the work order did not contain instructions with respect to informing the system engineer of significant findings. In discussions with

the system engineer, the inspector learned that, in general, work orders associated with strainer inspections contained generic instructions to notify the system engineer of any significant findings. The licensee indicated that these same generic instructions would be added to the work order for the service water pump strainer inspection. The system engineer reviewed past preventive maintenance work orders for the cleaning of station service water pump strainers and did not identify any adverse trends.

4.3 Invalid Work Request Tags

During this reporting period, the inspectors identified 15 work request tags, attached to plant equipment, which were determined to be invalid, that is, there was no open work order or action request associated with these work request tags.

The inspectors reviewed the status of planned work associated with these work requests and discovered that, for some of the examples identified, the work had been completed but the tag had not been removed from the equipment. In other instances, the work order or action request associated with the work request tag had been voided and the associated work request tag had not been removed. Finally, information related to some of the work requests could not be found on the computer data base, indicating that the work requests had not been entered into the tracking system.

Work Request Tags 138181 and 135277 were both attached to Valve 2CS-0023, a test connection valve connected to the Unit 2 charging header, and both tags indicated that the valve leaked by its seat. Work Request Tag 138181 was written in December 1992 and Work Request Tag 135277 was written in March 1993. The inspector observed that a catch containment was in place under the valve and that the cap on the end of the test connection pipe leaked, resulting in a steady flow of liquid into the catch containment. The work order written to repair this valve had been voided on June 1, 1994, based on observations in February 1994 that the valve no longer leaked. Neither of the work request tags were removed when the work order was voided. The tags, by not being removed, served as a barrier to identifying and thus correcting, in this case, a problem with a safety-related system.

Work Request Tag 132560, attached to Reactor Coolant Pump 2-01 Seal Water Injection Valve 2-8351A, indicated that the valve had a packing leak. The inspector observed that the valve showed signs of previous leakage, as evidenced by the presence of boron crystals on the valve and in the catch containment installed underneath the valve, but that the valve was not leaking at the time of the observation. The work order written to repair this valve had been voided in June 1994 based on field observations that the valve did not leak. The work request tag was not removed once the work order was voided and presented a barrier to initiation of a future work request tag.

Work Request Tag 135642 was attached to Valve 2SI-8981, a test connection valve on the centrifugal charging Pump 2-01/2-02 injection header. A yellow towel was wrapped around the test connection header and a catch containment

was in place around and underneath the test connection header. The presence of boron crystals on the towel and in the catch containment indicated that the valve had previously leaked, but the inspector could not determine whether or not the valve was leaking at the time of observation. The action request written in response to Work Request 135642 was voided in December 1993 and again presented a barrier to the identification of needed work.

It appeared to the inspector that, for the other components which had invalid work request tags attached to them, the problem identified on the tag had been corrected and did not exist at the time of the inspector's observation.

In response to the inspector's findings, the licensee conducted a plant walkthrough to identify and remove invalid work request tags. The licensee identified 138 tags that had not been removed following the completion of work and 68 tags that had not been entered into the computer-based maintenance tracking system. This represented 26 percent of the 787 work request tags identified in the plant. ONE Form 94-930 was written to document the results of this walkdown, resolve the significance of the 68 tags not entered into the maintenance tracking system, and identify the cause of the breakdown in the work control process. The licensee also indicated that a task team, established prior to the inspector's findings, was in the process of investigating a previously identified problem in the work control process dealing with the reassignment of work activities from one work document to another (ONE Form 94-730). The issue of invalid work request tags had previously been identified by the licensee and was included in the scope of this task team. The inspector noted th[illegible] although the task team's final report had not been issued, the team ha[illegible]ssued interim actions which included a restatement and reemphasis of expectations for the removal of work request tags.

As described in Procedure STA-606, Revision 21, "Work Requests and Work Orders," a work request form (tag) is used to identify problems with plant equipment and request corrective actions. The procedure stated that the work request tag was intended to improve problem/failure identification, indicate location and relation to other work documents and reduce the duplication of efforts. The inspector was concerned that the presence of an invalid work request tag on plant equipment could delay the identification and repair of new equipment problems on safety systems. The presence of an invalid work request tag on equipment could lead someone to believe that an observed equipment deficiency had previously been identified and already entered into the work planning process. Therefore, a new work request tag may not be written.

Procedure STA-606 provided management expectations with regard to the removal of work request tags from plant equipment. Section 6.2.16 stated that, upon the voiding of an Action Request, the work request tags should be removed from the component as appropriate. Section 6.3.2 stated that upon the voiding of a work order, the work request tags should be removed from the component as appropriate. Section 6.6.4.20 stated that field work request tags should be removed at the completion of work. The responsibility for removal of these

tags was also specified in the procedure. Procedure STA-606 stated that removal of the work request tag aided in identifying other work request tags and new issues.

Administrative Procedure STA-202, Revision 23, "Administrative Control of CPSES Nuclear Engineering and Operations Procedures," Section 4.1.4.6, stated that the use of the term "should" in procedural steps indicated a firm Comanche Peak Steam Electric Station management expectation that the step be performed and that any deviation was a departure from the norm and required supervisory concurrence. The inspectors did not identify any instances in which supervisory concurrence was obtained for not removing work request tags following the completion of work or voiding of action requests/work orders.

The failure to remove work request tags from safety-related equipment following the voiding of action requests, work orders, or at the completion of work, without supervisory concurrence, was identified as a violation of Technical Specification 6.8.1 (445/9415-01; 446/9415-01).

The inspectors determined that corrective actions for a similar violation identified in NRC Inspection Report 50-445/92-14; 50-446/92-14 were not effectively incorporated into the licensee's procedures which governed the work control process. In their response to this previous violation (TU Electric Letter TXX-92364, Mr. William J. Cahill, Jr. to Mr. J. Lieberman, dated August 13, 1992), the licensee identified corrective steps taken to avoid further violations. These steps included directing personnel to remove work request tags after work had been completed and placing them in the work order package, requiring postwork reviewers to verify that the work request tags were in the work package following the completion of maintenance and providing a justification for missing work request tags in the work package at postwork review. The inspector found that Procedure STA-606 did not provide instructions for the postwork reviewers to verify that work request tags were in the work package following the completion of maintenance nor did it indicate that justification was necessary for missing tags.

4.4 Conclusion

Maintenance activities were conducted in accordance with applicable work orders and procedures. Personnel obtained proper work authorization, properly hung required clearances, and observed proper radiological work practices during the performance of maintenance activities. Quality Control personnel were present to witness maintenance activities, when required. The use of calibrated equipment and proper materials was verified. Work packages were maintained at the work site during the activities and were properly annotated to document work performed.

The inspectors identified several examples of poor work planning which contributed to delays in the completion of maintenance on an SFP cooling crosstie valve. As a result, SFP cooling was secured to the Unit 1 SFP for longer than planned.

The inspectors identified 15 work request tags, attached to plant equipment, which were determined to be invalid, that is, there was no open work order or action request associated with these work request tags. The failure to remove work request tags from safety-related equipment following the voiding of action requests, work orders, or at the completion of work, without supervisory concurrence, was identified as a violation of Technical Specification 6.8.1 and is of concern because tags not appropriately removed create a barrier to identification and accomplishment of work on safety-related equipment. The inspectors determined that corrective actions for a similar violation identified in NRC Inspection Report 50-445/92-14; 50-446/92-14 were not effectively incorporated into the licensee's procedures which governed the work control process.

5 SURVEILLANCE OBSERVATIONS (61726)

The inspectors reviewed this area to ascertain whether the licensee conducted surveillance of safety significant systems and components in accordance with Technical Specifications and approved procedures. Specifically, the inspectors witnessed portions of the following surveillance tests.

- OPT-204, "SI System," Section 8.1, "Flowpath Alignment Verification," performed on Unit 1 as directed by Work Order 5-94-503947-AF.

- CHM-511, "Chemistry Control of the Safeguards System," Section 8.3, "Accum System," performed on Unit 1 as directed by Work Order 5-94-500882-AF.

- OPT-414A, "Solid State Safeguard Sequencer Operability Test," performed on Unit 1 as directed by Work Order 5-94-501733-AF.

- OPT-465A, Revision 4, "Train A Safeguards Slave Relay K603 Actuation Test," on Unit 1

- INC-7873B, "Analog Channel Operational Test and Channel Calibration Accumulator Tank #3 Pressure Channel 0965," Sections 8.1 thru 8.7, "Analog Channel Operational Test/Channel Calibration," performed on Unit 2 as directed by Work Orders 5-94-501641-AF and 5-94-501290-AA.

- INC-7867B, "Analog Channel Operational Test and Channel Calibration Accumulator Tank #4 Level Channel 0957," Sections 8.1 thru 8.7, "Analog Channel Operational Test/Channel Calibration," performed on Unit 2 as directed by Work Orders 5-94-500090-AF and 5-94-500572-AA.

- MSE-SO-5000, "Class 1E Station Batteries Weekly Inspection," Sections 8.2 and 8.3, "Tech Spec Surveillance and General Inspection," performed on both units as directed by Work Orders 5-94-500202, 5-94-500204, 5-94-500596, and 5-94-500598, "125 VDC Station Battery."

5.1 Class 1E Battery Surveillance

While observing the licensee conduct a weekly inspection of the Unit 1 and Unit 2 Train A Class 1E batteries, the inspector made several observations with regard to the instructions provided in MSE-SO-5000, Revision 0, "Class 1E Station Batteries Weekly Inspection."

Section 8.2.1.1 provided instructions to place the battery charger in the float mode and wait for the charger's voltage to stabilize prior to taking battery data. The inspector noted that the procedure did not provide any guidance as to when the voltage could be considered stabilized, such as a time duration or a magnitude of voltage change.

Section 8.2.9 indicated that if corrosion was present on the battery terminals or connectors, resistance of the connection was to be verified less than 150 micro-ohms and referred the technician to the "applicable Surveillance procedure." However, the step did not identify the applicable surveillance procedure.

Section 8.3.1 directed the technician to "measure and record ambient temperature in about center of battery room." The inspector observed that there were two instruments mounted on the walls of the battery room that could be used to determine room temperature, but none were located in the center of the room. The licensee indicated that it was not required that the temperature be taken in the center of the room and planned on removing this detail from the procedure.

Section 8.3.2 required technicians to verify that the battery's ventilation was operating by checking for airflow from the ventilation exhaust ducts. However, the inspectors observed that the ducts were approximately 15 feet up in the overhead, making it difficult for the technicians to check for airflow.

The licensee indicated that changes would be made to the procedure to address the inspector's concerns.

5.2 Conclusion

Surveillance activities were properly performed in accordance with applicable procedures and satisfied the requirements of Technical Specifications. The inspectors observed that the licensee adhered to controls for work authorization, equipment clearances, test equipment calibration, and documentation of test results. Systems were properly restored following completion of the tests, and surveillance results were properly documented.

The inspectors identified several concerns with a procedure used in the conduct of a weekly inspection of the Unit 1 and Unit 2 Train A Class 1E batteries.

6 FOLLOWUP - ENGINEERING (92903)

(Open) Inspection Followup Item 445/9335-01;446/9335-01: Gagged Relief Valve

In response to the inspectors' discovery of a gagged relief valve (2SD-0020) in the Unit 2 steam generator blowdown system, the licensee issued ONE Form 93-1964. The ONE form stated that the gagged relief valve was in violation of Construction Code B31.1, which required the placement of a relief valve in this piping. The licensee performed an engineering evaluation which demonstrated that the Unit 2 steam generator blowdown system was operable (i.e., had no structural vulnerabilities) with Relief Valve 2SD-0020 gagged closed. The evaluation further determined that the environmental impact of a pipe break in this line was not substantially changed by the fact that the relief valve was gagged.

During this inspection period, the inspectors observed that the gag on Valve 2SD-0020 had been removed. Further, no gags were observed on other relief valves examined randomly during a plant tour.

The inspectors noted that the ONE form response did not address the programmatic deficiency that permitted the relief valve to be gagged without an engineering evaluation. For this reason, the inspectors considered the ONE form response to be weak. Although the piping affected by this incident was not classified as safety-related, there did not appear to be additional controls in place that would prevent safety-related piping from being similarly handled. The licensee has indicated that they plan to perform further reviews based on the inspector's concerns. This item will remain open pending a further review of the licensee's controls for gagging relief valves.

ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

*J. L. Barker, Mechanical Engineering Manager
*R. D. Bird, Jr., Planning and Scheduling Manager
*M. R. Blevins, Assistant to Vice President of Nuclear Operations
*D. L. Davis, Nuclear Overview Manager
*E. L. Dyas, Nuclear Specialist, Nuclear Operations
*R. Flores, Shift Operations Manager
*W. G. Guldemond, System Engineering Manager
*T. A. Hope, Regulatory Compliance Manager
*J. J. Kelley, Vice President, Nuclear Engineering and Support
*D. C. Kross, Operations Support Manager
*B. T. Lancaster, Plant Support Manager
*F. W. Madden, Engineering Overview Manager
*D. R. Moore, Operations Manager
*J. W. Muffett, Station Engineering Manager
*A. Quam, Regulatory Compliance
*S. L. Smith, Work Control Center Manager
*D. W. Snow, Regulatory Compliance Engineer
*R. D. Walker, Regulatory Affairs Manager

1.2 NRC Personnel

*K. Kennedy, Resident Inspector
M. Runyan, Inspector
T. McKernon, Inspector
W. McNeill, Inspector

*Denotes personnel that attended the exit meeting. In addition to the personnel listed, the inspector contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on July 21, 1994. During this meeting, the inspectors reviewed the scope and findings of the report. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspectors.