

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report No. 50-445/92-06
50-446/92-06

Operating License No. NPF-87

Construction Permit No. CPPR-127

Licensee: TU Electric
Skyway Tower
400 North Olive Street
Dallas, Texas 75201

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

Inspection At: CPSES, Glen Rose, Texas

Inspection Conducted: January 27-30, 1992

Inspector: R. B. Vickrey, Reactor Inspector, Plant Systems Section
Division of Reactor Safety

Approved: T. F. Westerman 2-7-92
T. F. Westerman, Chief, Plant Systems Section Date
Division of Reactor Safety

Inspection Summary

Inspection Conducted January 27-30, 1992 (Report 50-445/92-06)

Areas Inspected: No inspection of CPSES, Unit 1, was performed.

Inspection Conducted January 27-30, 1992 (Report 50-446/92-06)

Areas Inspected: Routine, unannounced inspection of instrument component and system procedure reviews, work observations, and record reviews and licensee's actions regarding a 10 CFR 50.55(e) deficiency.

Results: Within the areas inspected, no violations or deviations were identified.

The licensee had procedures in place to control work activities. The craft appeared skilled in their work activities. Completed work activities were indicative of good work and inspection practices. Supervision, engineering, and quality control were active at the job sites. Records were quickly retrievable, legible, and properly documented. Additional inspection of this area will be conducted in a future inspection.

The licensee had implemented effective corrective action in response to Construction Deficiency SDAR CP89-30.

DETAILS

1. PERSONS CONTACTED

CPSES

- *L. Bradshaw, Stipulation Secretary
- *H. Bruner, Senior Vice President
- *W. Guldemon, Manager, Site Licensing
- *E. Gully, Change Control Manager
- *T. Hope, Licensing Manager, Unit 2
- *C. Killough, Procurement Quality Assurance (QA) Manager
- *G. Merka, Licensing Engineering
- *D. McAfee, Manager, QA
- *D. Pendleton, Unit 2 Regulatory Services Manager
- *B. Pool, Procurement Engineer
- *F. Powers, Procurement Engineering Manager
- *T. Robertson, Materials Management Organization Unit 2 Manager
- *J. Simmons, Procurement Quality Engineering Supervisor
- *R. Spence, Unit 2 Quality Control (QC) Manager
- *J. Taylor, Procurement Engineering Supervisor
- *L. Walker, Licensing Engineer
- *K. Williamson, Project Construction Engineer
- *J. Wren, Construction QA Manager
- *M. Yancy, Instrumentation and Controls, Construction Engineer

CASE

- *O. Thero, Consultant

NRC

- *D. Graves, Resident Inspector
- *W. McNeill, Reactor Inspector, Region IV

*Denotes attendance at exit interview conducted on January 30, 1992.

The inspector also interviewed other licensee employees during the inspection.

2. LICENSEE ACTION ON 10 CFR PART 50.55(e) DEFICIENCY (92709)

(Closed) Construction Deficiency SDAR CP-89-30: "AFW Pump Turbine Low Lube Oil Pressure Switch." This deficiency involved Pressure Switch 1-PS-2452-4 installed on the auxiliary feedwater pump turbine and applied to both Units 1 and 2. Specifically, documentation to certify the pressure switch as a qualified component for Class 1E application could not be substantiated. As previously documented in NRC Inspection Report 50-445/89-88; 50-446/89-88, this issue was reviewed and closed for Unit 1.

During this reporting period, the inspector reviewed the licensee's corrective actions associated with this construction deficiency for Unit 2. This review included the evaluation of Design Change Authorization (DCA) 94485, Revision 1, which reconfigured the isolation circuit to provide double fuse isolation for Pressure Switch 2-PS-2452-4. The double fuse isolation option is an acceptable means of isolation as defined by the CPSES Final Safety Analysis Report (FSAR) and Design Basis Document EE-057.

Based on these documentation reviews and field inspections of the fuses rewired by the DCA, it was determined that the licensee had developed and implemented effective corrective actions in response to the identified construction deficiency. Therefore, this item is closed for Unit 2.

3. INSTRUMENT COMPONENTS AND SYSTEMS-PROCEDURE REVIEW (52051)

The inspector performed direct inspection of work performance to determine if the technical requirements contained in the licensee's FSAR for safety-related instrumentation had been adequately translated into applicable constructions, drawings, work procedures, and instructions. Additionally, the inspector evaluated the licensee's work control program to determine if the specified documents and procedures were of sufficient detail and clarity to provide appropriate work performance and control.

The inspector reviewed Construction/Quality Procedure CQP-ME-103, Revision 0, PCN-02, "Pressure Testing." This procedure established the requirements and criteria for pressure testing of piping and components in the Radioactive Waste Management Systems, Fire Protection System, ANSI B31.1 (Class 5 and G) Piping, and Instrument Tubing. The procedure also provided both in-process and final inspection acceptance criteria.

This procedure appeared to address all the relevant aspects of instrumentation tubing pressure testing and acceptance criteria. The procedure appeared to be of sufficient detail and clarity for appropriate work performance and control.

The inspector reviewed the licensee's data base of preventive maintenance work orders to inspect control cabinets, local instrument racks, and radiation monitor panels. This program encompassed 153 total items divided into five different work-task lists. The tasks had been initiated on a monthly basis which began in October 1991. The tasks conducted visual inspections, documented deficiencies, and replaced damaged, dirty, and missing temporary filters as required. The data base also contained history files which documented the corrective actions for identified deficiencies.

The inspector noted that the implementation of this preventive maintenance program by the licensee appeared to be a significant improvement in the overall equipment condition controls. This program has identified several deficiencies that the licensee has corrected. Furthermore, it has addressed the areas of concern which were previously identified in NRC Inspection Report 50-445;446/91-33, conducted in July 1991. The previous inspection identified dirty control rod cabinets, and rod position indication data cabinets, where routine preventive maintenance (cleaning) was not being performed.

The inspector concluded that the procedures were adequate to ensure that the instruments were properly pressure tested and protected prior to plant startup.

4. INSTRUMENT COMPONENTS AND SYSTEMS-WORK OBSERVATION (52053)

The inspector conducted direct observation and independent evaluation of work performance, work in-progress, and completed work. These observations were used to determine if activities relative to safety-related instrument components and systems were being controlled and accomplished in accordance with NRC requirements, the FSAR, and the licensee's procedures.

The inspection activities included the observation of one instrument pressure test, a comprehensive tour of instrument installations in containment, and observations of several in-process instrument tubing work activities. During these activities, the inspector interfaced directly with several licensee work groups. These groups included craft personnel, construction engineers, quality control inspectors, test engineers, and test support personnel.

The inspector observed the licensee conduct Hydrostatic Pressure Test 2AF-093-1 on instrument tubing for Gage 2-PI-2469. During this test, the inspector reviewed the associated pressure test package. This review included the inspector checking the calculations of the hydrostatic test calculation sheet, observing the recording of data, and reviewing the pressure test data sheet and pressure test checklist. This test required QC acceptance and was successfully completed without delay. The inspector noted a good working relationship of the different trades involved, and a good understanding of the test requirements for each discipline.

The inspector observed several instrument tubing work activities in progress within the reactor building. These activities included the installation of tubing and supports, rework of tubing and supports, and final installation checks in preparation for QC inspection. During these inspection activities, the inspector reviewed several of the work packages being used, observed active interfaces between craft personnel and construction engineering, and discussed work activities with the personnel working the work packages. The inspector observed what appeared to be a very good working relationship between craft personnel and construction engineering.

The inspector conducted a comprehensive tour of instruments installed in the reactor building. The inspector focused on instrument protection from ongoing work activities in the area. The licensee protected installed instruments and flexible tubing by installing fire-proofed wooden boxes around them. In addition, the inspector observed that additional precautions were used when welding activities were taking place in the vicinity of installed instruments. The inspector found only one instance of equipment damage during his tour. The stainless steel flexible conduit had pulled loose from the flex connector at the rigid Conduit End C24B2FT246-1 of Instrument FT-426. The licensee issued TUE No. 3675 and reworked the flex connector. The inspector concluded that the protection of installed instruments was well controlled and also reflected the good work ethic of all trades working in the areas of installed instrumentation to be cautious.

Additional inspection effort will be required in this area when the licensee is further along in construction activities and nearer to the time of compartment closeout. The inspector concluded that the licensee's work activities appeared to have adequate controls for good work and inspection practices.

5. INSTRUMENT COMPONENTS AND SYSTEMS-RECORD REVIEW (52055)

The inspector reviewed and evaluated quality records pertaining to instrumentation to determine whether the system of records was functioning properly. The records were reviewed and evaluated for appropriate preparation, review, and evaluation.

The record selection consisted of nine vaulted records. Six of these records were selected primarily to review completed pressure tests of instrument tubing. The licensee was able to retrieve the records requested by the inspector quickly. The records were found to be legible, complete, and documented.

During the inspector's review of Pressure Test Package 2SI-112-1, the inspector noted that the calibration due dates for the pressure gages used to record test pressure were recorded as January 6, 1991. The test had been conducted on October 15, 1991, and reviewed on December 12, 1991. In response to the inspector's finding, the licensee was able to verify that the pressure gages involved actually had a calibration due date of January 6, 1992. The licensee subsequently submitted a supplemental record form to correct the calibration due dates of the vaulted record. This error was considered by the inspector to be an isolated event.

In addition to the vaulted records reviewed by the inspector, several working records were reviewed. The working records reviewed were in work packages that were being used at various work sites the inspector visited and were found to be complete.

Additional inspection effort may be conducted in this area after the licensee has completed more instrument installations and has vaulted the records. The inspector concluded that the licensee appeared to have appropriate controls for record documents, review, and storage.

6. EXIT INTERVIEW

An exit interview was conducted on January 30, 1992, with those personnel denoted in paragraph 1, in which the inspection findings were summarized. No information was presented to the inspector that was identified by the licensee as proprietary.