

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

Report No. 50-445/79-28; 50-446/79-27

Docket No. 50-445; 50-446

Category A2

Licensee: Texas Utilities Generating Company  
2001 Bryan Tower  
Dallas, Texas 75201

Facility Name: Comanche Peak, Units 1 and 2

Inspection at: Comanche Peak Steam Electric Station, Glen Rose, Texas

Inspection conducted: December 4-7 and 10-13, 1979

Inspectors:

*L. E. Martin*  
L. E. Martin, Reactor Inspector, Engineering  
Support Section (Paragraphs 1, 2, 4, 5 & 6)

1/11/80  
Date

*L. D. Gilbert*  
L. D. Gilbert, Reactor Inspector, Engineering  
Support Section (Paragraph 3)

1/11/80  
Date

Other Accompanying

Personnel: M. T. Pardinek, Engineering Aide (Co-Op)

Approved:

*W. A. Crossman*  
W. A. Crossman, Chief, Projects Section

1/11/80  
Date

*R. E. Hall*  
R. E. Hall, Chief, Engineering Support Section

1/11/80  
Date

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Inspection Summary:

Inspection on December 4-7 & 10-13, 1979 (Report No. 50-445/79-28; 50-446/79-27)

Areas Inspected: Routine, unannounced inspection of construction activities including site tour; review of QA program for the Unit 1 preservice inspection; electrical equipment maintenance and storage; and electrical construction and inspection procedures. The inspection involved eighty-one inspector-hours by two NRC inspectors.

Results: Of the four areas inspected, one apparent item of noncompliance was identified in one area (infraction - failure to provide appropriate instructions for installation of electrical panel - paragraph 4).

## DETAILS

### 1. Persons Contacted

#### Principal Licensee Employees

- \*J. B. George, TUSI, Project General Manager
- \*R. G. Tolson, TUGCO, Site QA Supervisor
- \*J. V. Hawkins, TUGCO/G&H Product Assurance Supervisor
- \*J. Merritt, TUSI, Engineering and Construction Manager

#### Other Personnel

- H. Glover, QC Inspector, (B&R)
- P. Van Teslaar, Site Manager, Westinghouse

\*denotes those attending the exit interview.

### 2. Site Tour

The IE inspectors walked through the Unit 1 Reactor Building and Auxiliary Building to observe construction activities in progress and to inspect housekeeping.

No items of noncompliance or deviations were identified.

### 3. Preservice Inspection - Unit 1

The IE inspector reviewed the Westinghouse Quality Assurance program for preservice inspection activities being performed by the Nuclear Services Division of Westinghouse in accordance with the Agreement of Settlement between TUSI and Westinghouse dated December 16, 1977. The following documents were reviewed for applicable Quality Assurance requirements:

QA Plan (NSD-PA-001)

Product Assurance Manual (WCAP-8266)

Preservice and Inservice Inspection Documentation Procedure  
(OPS-NSD-101)

In the areas reviewed, no discrepancies from the requirements of FSAR Section 17 were noted.

In discussions with TUGCO, it was determined that TUGCO planned to include in their QA program a procedure to assure that the nondestructive examination (NDE) reports, to be submitted by Westinghouse for

preservice inspection, are reviewed and any indication evaluated to Section XI, ASME B&PV Code requirements.

This matter is considered unresolved pending issuance of the procedure.

4. Electrical Systems

a. Review of Procedures

The IE inspector reviewed the following specifications, procedures and design change authorizations for compliance with 10 CFR 50, FSAR, and applicable industry standards:

- (1) 2323-ES-100, Rev. 1, "Electrical Specification"
- (2) CP-QAP-7.2, Rev. 3, "QC Receiving Inspection"
- (3) QI-QAP-7.2-AD, Rev. 1, "Receiving of Electrical Equipment"
- (4) QI-QAP-7.2-11, Rev. 1, "Receiving TUSI/G&H Procured Safety Related Equipment"
- (5) CP-QP-8.0, Rev. 0, "Receiving Inspections"
- (6) CP-QP-11.8, Rev. 1, "Instrumentation and Control Inspection Activities"
- (7) 35-1195-ECP-19, Rev. 4, "Exposed Conduit and Conduit Hanger Fabrication & Installation"
- (8) 35-1195-EEI-4, Rev. 0, "Cable Pulling and Termination of Lighting Wire"
- (9) 35-1195-EEI-S, Rev. 0, "Meggering of Class IE Cable"
- (10) 35-1195-EEI-6, Rev. 4, "Cable Pull Cards and Vault Control"
- (11) 35-1195-EEI-7, Rev. 2, "Cable Pulling"
- (12) 35-1195-EEI-8, Rev. 2, "Class IE and Non IE Cable Termination"
- (13) CP-QP-0.3, Rev. 74, "Electrical Inspection Manual" - 64 of 71 procedures as listed on the Table of Contents were reviewed, with the exception of CEI-20, CMP-6.3, CPM-6.10, QAP-15.1, CP-QP-2.1, QI-QP-10.1-2, and QA-QP-11.3-13

Fourty-four Design Change Authorizations relating to Electrical Specification 2323-ES-100 and the installation of electrical equipment were reviewed.

No items of noncompliance or deviations were identified.

b. Observation of Electrical Equipment Maintenance and Installation

- (1) The IE inspector made an in-plant and warehouse tour to observe implementation of storage and maintenance requirements for electrical equipment. The IE inspector witnessed the shaft rotation portion of the maintenance requirements on the Unit 1 Centrifugal Charging Pumps. The maintenance instructions and records for the Unit 1 and Unit 2 Residual Heat Removal Pump motors, Centrifugal and Positive Displacement Charging Pump motors, Auxiliary Feedwater Pump motors, Component Cooling Water Pump motors, Safety Injection Pump motors, and Unit 1 Diesel Generators were reviewed.
- (2) The IE inspector reviewed the following construction Operation Travelers for anchoring and installation of electrical equipment:

<u>Const. Operational Traveler No.</u>	<u>Equipment Name</u>
EE 79-006-02AB	6.9 KV SWGR 1EA1
EE 79-007-02AB	6.9 KV SWGR 1EA2
EE 79-010-02AF	480 VAC SWGR 1EB2
EE 79-016-02AI	480 VAC MCC XEB1-2
EE 79-037-01DE	Battery Rack BT1ED2
EE 79-131-02AB	Unit 1 Hot Shutdown Panel

The IE inspector inspected the completed installation of the above equipment to determine compliance, adequacy, and applicability of the requirements specified by the Operational Travelers.

During the inspection of the Unit 1 Hot Shutdown Panel, the IE inspector found two pieces of 2 inch angle iron inside the walk-in section of the panel. A subsequent review of Design Change Authorization (DCA) 5859, Rev. 3 indicated that the two pieces of steel were to have been used to provide to-the-floor supports for the air conditioning unit of the panel.

IEEE Standard 336, 1971, as committed to in Chapter 8 of the CPSES FSAR requires in paragraph 2.3 that installation and



inspection of Class IE equipment be performed in accordance with the latest information and shall include as appropriate, approved construction drawings, installation specifications, manufacturer's instructions, etc.

10 CFR 50, Appendix B, Criterion V requires appropriate documented instructions or procedures to accomplish activities affecting quality.

Contrary to the above:

Construction Operational Traveler EE 79-131-02AB, which was the lead document provided by B&R engineering for Unit 1 Hot Shutdown Panel, does not provide the necessary technical instructions for the complete installation and inspection of this panel.

As a result of the failure to provide instructions that prescribe or properly reference documents that prescribe the complete installation requirements, the Unit 1 Hot Shutdown Panel was not properly installed and inspected.

The only drawing referenced on Traveler EE 79-131-02AB was the General Arrangement Drawing 2323-E1-0717-01, Rev. 4, which indicates the floor elevation and column line location of the panel. The Traveler did not reference or address any other construction drawings or manufacturer drawings or instructions pertaining to installation of the panel. DCA 5859 was referenced in the Operational Traveler to provide the welding details for the panel base. One of the attachments to DCA 5859 was a Gibbs & Hill Drawing (Fig. 1) which indicates the floor attachment method and location of the additional supports. These additional supports were bolted type connections utilizing hardware supplied by the manufacturer and a base plate to be supplied by the customer. The DCA further requires the utilization of Reliance (Mfg) Drawing M-LV0170IF and Gibbs & Hill Drawing S1-608 in mounting this panel. The Operational Traveler only referenced the welding operation of the installation. The DCA was not a requirement for the total installation or subsequent inspection. As a result, these supports were not installed and the installation of the Hot Shutdown Panel was inspected and signed off as complete.

The failure to provide appropriate instructions to accomplish activities affecting quality is a failure to comply with 10 CFR 50, Appendix B, Criterion V.

This is an infraction.

5. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance, or deviations. An unresolved item disclosed during the inspection is discussed in paragraph 3.

6. Exit Interview

The IE inspectors met with licensee representatives (denoted in paragraph 1) and R. G. Taylor (NRC Resident Reactor Inspector) at the conclusion of the inspection on December 13, 1979. The IE inspectors summarized the purpose, scope and findings of the inspection. The licensee representatives acknowledged the statements by the inspectors with regard to the item of noncompliance and the unresolved item.