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

REGION IV

Report No. 50-445/79-23; 50-446/79-22

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: Glen Rose Texas, Comanche Peak Site

Inspection conducted: September 27-28 and October 3-4, 1979

Inspector: for C. R. Oberg, Reactor Inspector, Projects Section 10/31/79 Date

Approved: W. A. Crossman, Chief, Projects Section 10/31/79 Date

Inspection Summary
Inspection on September 27-28 and October 3-4, 1979 (Report No. 50-445/79-23; 50-446/79-22)
Areas Inspected: Routine, unannounced inspection of construction activities relating to QA implementing procedures for instrumentation components and systems, electrical components and systems, and mechanical safety-related components. The inspection involved twenty-nine inspector-hours on site by one NRC inspector.
Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

Principal Licensee Employees

*R. G. Tolson, Site QA Supervisor, TUGCO
*J. T. Merritt, Jr., Manager, Engineering and Construction, TUSI

Other Personnel

D. Fitgerald, Quality Engineer, Brown and Root
W. Bankirt, Quality Engineer, Brown and Root
Shahid Ali, Quality Engineer, Brown and Root
S. Tackett, Authorized Nuclear Inspector

The IE inspector also interviewed other licensee and contractor personnel including members of the QA/QC and clerical staffs.

*Denotes those present at the exit interview.

2. Safety-Related Components - Review of Quality Assurance Implementing Procedures

a. Receipt Inspections

Receipt inspection of safety-related components is required in the construction specifications. This was verified by review of three specifications relating to safety-related components as follows:

Specification Number	Title
2323-MS-0049	Component Cooling Water Heat Exchangers
2323-MS-0012	Containment Spray Pumps
2323-MS-0011	Component Cooling Water Pumps

These specifications call for receipt inspections to: (1) examine the packaging and sealing of components and spare parts; (2) check that all components under the purchase specifications have arrived; and (3) check for shipping damage.

Implementing procedures for receipt of safety-related material and requirements for receiving inspection are contained in CP-QAP 7.2 "QC Receiving Inspection," (Revision 3, March 19, 1979).

Additional specific instructions for "Receiving of Westinghouse Safety Related Equipment" are contained in Brown and Root's QI-QAP-7.2-8. These instructions require verification of proper W documentation supporting that the components are in compliance with purchase specifications including Data Records (ASME requirements); that the components are adequately identified (W identification); and that the specified components are damage free. Items which do not conform to the specifications are reported under CP-QAP-15.1, "Control of Nonconforming Items."

No items of noncompliance or deviations were identified.

b.. Component Handling and Lifting

Safety-related components are to be handled in accordance with Brown and Root Construction Procedure 35-1195-ACP-3, Section 5.2. Gibbs and Hill Specification 2323-MS-101, "Mechanical Erection," specifies that mechanical components are to be lifted in accordance with the manufacturer's instructions and/or ANSI B-30 series. Specific preplanning instructions for rigging and hoisting operations are to be provided on the "Operational Traveler" as required by QI-QAP-13.1-1, "QC Surveillance of Rigging and Hoisting," for safety-related components. The preplanning is established and approved prior to critical lifting operations. Records are to be maintained on pretesting of standard manufactured lifting equipment and components.

c. Installation Activities

The activities involved in the setting and alignment of mechanical safety-related components are governed by written engineering instructions based on vendor instructions along with QC Inspection Reports or by Operational Travelers which combine the Engineering Instruction and QC inspection documentation into one document.

Discussion with a licensee representative revealed that no procedure had been developed that defines which system is to be used with a given component and therefore, a possibility exists that neither system might be used on occasion.

The above item is considered as an unresolved item pending further review.

d. Post Installation Cleaning Preservation and Inspection

Storage requirements for safety-related components for pre and post installation conditions are specified in Brown & Root Construction Procedure 35-1195-MCP-10, "Storage and Storage Maintenance of Mechanical and Electrical Equipment," (Revision 4, June 14, 1979).

Maintenance inspection requirements are detailed in Brown & Root Instruction Number QI-MCP-10.1, (Revision 0, May 17, 1979) "Mechanical Equipment Storage Maintenance."

Measures for equipment and equipment storage area cleanliness and preservation and inspection of equipment are established prior to need by engineering on Maintenance Record Cards (MRC).

No items of noncompliance or deviations were identified.

3. Electrical Components and Systems - Review of Quality Assurance Implementing Procedures

The IE inspector reviewed various procedures (given below) in order to determine if appropriate and adequate procedures exist for controlling activities involving safety-related electrical components and systems.

a. Receipt Inspection, Handling and Storage

Requirements for electrical components and material receiving, are contained in Brown & Root Construction Procedure 35-1195-ACP-3, (Revision 7, September 22, 1978) "Material Receiving, Storage and Handling." Items received are to be inspected for damage and conformance to purchase specifications. Results are documented on a B&R "Receiving Inspection Report" (RIR).

Specific requirements for handling and storage of the material are contained in ACP-3 and in B&R Construction Procedure 35-1195-MCP-10, "Storage and Storage Maintenance of Mechanical and Electrical Equipment." Periodic verification that material is properly stored is prescribed on a Maintenance Record Card (MRC) by quality engineering. Special, as well as general, storage requirements are included on the MRC. Records are maintained on these activities. Safety-related equipment is required to be segregated, where possible, and clearly identified by purchase order numbers.

b. Installation

Installation of safety-related electrical components and systems which are "unique" are controlled under the B&R and TUGCO "Operational Traveler" systems (B&R CP-CPM-6.3 and TUGCO CP-QP-2.3, respectively, see paragraph 5). The electrical Operational Travelers are required to have specific quality requirements and "Hold Points" for QC witness or verification.

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Installation of equipment, which is not one of a kind, is verified thru the use of inspection reports. TUGCO CP-QP-11.3, "Electrical Inspection Activities" applies to this function. Detailed inspection requirements are contained in Quality Instructions (QI) supplementing this procedure.

Training requirements for inspection personnel are contained in TUGCO QI-QP-2.1-3, "Qualification of Electrical and Instrumentation Inspection and Test Equipment." The purpose of this instruction is to present qualifications for personnel involved in electrical testing and inspection. TUGCO Quality Engineering oversees training accomplishment.

c. Inspection and Construction Testing

Inspection and testing of installed electrical components are carried out in accordance with the instructions of the Operational Traveler referred to above. Records of the results are made on Travelers, which are routed back to the quality engineering section in order to review results of the inspections.

d. Material and Component Identification

All material and electrical components are required to be clearly identified upon receipt at the warehouse in accordance with B&R 35-1195-ACP-3, "Material Receiving Storage and Handling," (Revision 7, September 22, 1978). Identification includes appropriate purchase order; documentation package; serial numbers; and specification and drawings as applicable.

"Receiving Hold" tags are provided when necessary. "Q" items are tagged or marked as appropriate to visually indicate inspection status.

No items of nonconformance or deviations were identified.

4. Instrumentation Components and Systems - Review of Quality Assurance Implementing Procedures

a. Identification of Instrument Components

Brown & Root Construction Procedure 35-1195-ACP-3, "Material Receiving, Storage and Handling," contains appropriate and adequate provisions for the identification of instruments at the time of receiving. Provisions also exist for identification of nonconforming items in accordance with CP-QAP-15.1, "Field Deficiency Reporting."

b. Receipt Inspection, Handling and Storage

Instrumentation components are inspected at receipt in order to verify that the components are undamaged, that documentation of conformance with specifications is present and inspection reports are prepared. Verification of storage requirements for instrument components is required by 35-1195-MCP-10, "Storage and Storage Maintenance of Mechanical and Electrical Equipment." (This applies to instruments despite the title.) Documentation of qualification test is required where applicable.

c. Installation

Installation procedures include quality requirements. This includes independence, separation and protection requirements. Properly qualified and trained personnel are to install instruments, and/or weld instrument lines. Special installation instructions are also provided.

The following procedures apply to the installation and testing of instrumentation:

B&R 35-1195-ICP-4, Revision 2, August 27, 1979
"Instrument and Tubing Installation and Inspection"

B&R 35-1195-ICP-9, Revision 1, June 25, 1979
"Instrument Support Installation"

TUGCO QI-QP-11.8-2, Revision 2, September 21, 1979
"Instrument and Tubing Support Fabrication and Installation Inspection"

TUGCO QI-QP-11.8-1, Revision 1, September 10, 1979
"Instrument Tubing Fabrication, Instrument Tubing and Instrument Fitting Installation"

d. Inspection and Construction Testing

Quality requirements are contained on the Operational Traveler as specified by CP-CPM-6.3 (See paragraph 5). Results of inspection are transmitted to the quality engineer and other management personnel on the completed Travelers. Where required, special test equipment is indicated on the Travelers.

No items of noncompliance or deviations were identified.

5. Operational Traveler System

Comanche Peak is developing a system for control of work called an Operational Traveler. The stated purpose is to insure fulfillment of QA criteria during the construction phase. Two procedures exist: TUGCO CP-QP-2.3, Revision 0, 1979 and B&R CP-CPM-6.3, Revision 5, December 13, 1978. It is intended that safety-related operations (non-repetitive) be accomplished in accordance with an Operational Traveler. Control of Travelers is vested in the appropriate quality engineer (TUGCO) by the assignment of a unique number.

After discussion with licensee representatives, it was determined that the existing procedures would be revised and one procedure would be cancelled.

This item will be considered unresolved pending modification and review.

6. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in paragraphs 2 and 5.

7. Exit Interview

The IE inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on October 4, 1979. The IE inspector summarized the scope and findings of the inspection. The licensee representatives acknowledged the unresolved items.