

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

REGION IV

Report No. 50-445/79-24; 50-446/79-23

Docket No. 50-445; 50-446

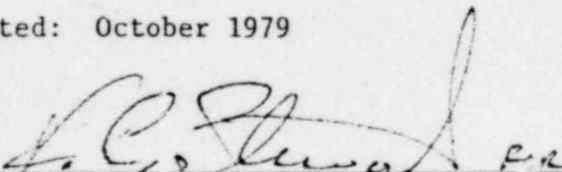
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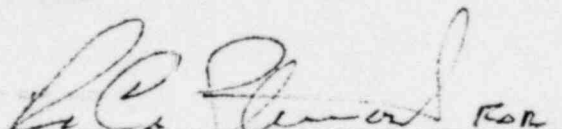
Licensee: Texas Utilities Generating Company  
2001 Bryan Tower  
Dallas, Texas 75201

Facility Name: Comanche Peak, Units 1 & 2

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

Inspection conducted: October 1979

Inspector:  11/23/79  
R. G. Taylor, Resident Reactor Inspector, Projects Section Date

Approved:  11/23/79  
W. A. Crossman, Chief, Projects Section Date

Inspection Summary:

Inspection during October 1979 (Report No. 50-445/79-24; 50-446/79-23)

Areas Inspected: Routine inspection by the Resident Reactor Inspector (RRI) of construction progress and practices; concrete construction activities; piping system installation and welding; storage and maintenance of equipment; construction fire protection; electrical cable installation; and followup on previous inspection findings. The inspection involved sixty-nine inspector-hours by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

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## DETAILS

### 1. Persons Contacted

#### Principal Licensee Employees

- \*R. G. Tolson, TUGCO, Site QA Supervisor
- \*J. B. George, TUSI, Project General Manager
- \*J. R. Merritt, TUSI, Construction and Engineering Manager
- \*D. N. Chapman, TUGCO, Quality Assurance Manager

#### Brown and Root Employees

- \*U. D. Douglas, Construction Project Manager
- J. P. Clarke, Project QA Manager
- J. V. Hawkins, QC Supervisor

The RRI also interviewed other licensee and Brown and Root employees during the inspection period.

\*Denotes those persons with whom the RRI held on-site management meetings.

### 2. Action on Previous Inspection Findings

(Closed) Infraction (50-445/79-11): Failure to Implement the Quality Assurance Program for Civil Construction. The licensee notified RIV by a letter dated September 17, 1979, that all contemplated actions by his consultants and the Architect/Engineer have been completed and that the in-place concrete was found satisfactory. The substantiating data to support this contention were reviewed by the RRI and personnel of the RIV Engineering Support Section. The IE inspectors found that the stated positions were essentially based upon an examination of the in situ concrete by a sonic technique. This technique was developed, used and is interpreted by only one person in the industry and, as such, is not verifiable by any other party.

Pending some additional and verifiable assurance that the in situ concrete has the necessary qualities required by the design, this matter will be considered as an unresolved item.

(Closed) Unresolved Item (50-445/79-13): Potential Deficiency Regarding Design of Pipe Supports. The licensee notified RIV by letter dated September 8, 1979, that this matter had been investigated and deemed to be not reportable within the context of 50.55(e). Supporting data reviewed by the RRI and discussions with cognizant site personnel substantiated this determination.

The RRI had no further questions on this matter.

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3. Site Tours

The RRI toured the safety-related plant areas several times during the inspection period to observe the progress of construction and the general practices involved. Three of these tours were conducted during portions of the construction labor second shift which continues to be relatively small and substantially devoted to electrical installation activities.

During several of these tours, the RRI observed a general deterioration in plant area housekeeping. This matter was brought to the attention of licensee management who responded immediately. The construction force was directed to cleanup and remove the accumulated construction debris which was promptly done.

No items of noncompliance or deviations were identified.

4. Concrete Construction Activities

The RRI observed a portion of the concrete placement activities for the Unit 2 dome. This placement, identified as 201-8805-013, was the final placement in the Unit 2 containment shell exclusive of the construction opening.

The RRI observed the preparation of the concrete at the batch plant and the condition of the cement and aggregate storage activities. The RRI also observed the transportation of the concrete to the placement area via trucks and two yard buckets including performance of required tests for slump, temperature and air content of the fresh material.

On October 24, 1979, at approximately 11:15 a.m., the RRI received a call on the plant area telephone system. The caller, who refused to identify himself, stated that he and several other persons, also unidentified, had overheard the Brown and Root QC inspector say, "I didn't inspect this placement, but since the trucks are here go ahead." The caller said that the pour was in progress inside Reactor Building 2. The RRI went immediately to the placement area, which was a portion of an interior wall, and discussed the accusation with the QC inspector of record. The QC inspector promptly and emphatically denied having made the statement and stated positively that he had inspected the placement area.

The RRI asked that all personnel associated with the activity be made available for an interview. A subsequent and longer interview with the QC inspector of record indicated that he had inspected the area on October 23, 1979, and was satisfied, except for cleanup, an element which was satisfactorily verified between 6:00 a.m. and 7:00 a.m. on October 24, 1979. The inspector did relate that he found one small area of the placement that had to be fully inspected just prior to initial delivery of concrete which was held up for a few minutes. This occurred, the

inspector said, because he had misconstrued the exact placement boundaries. The inspector indicated that he had discussed the localized lack of inspection with a craft general foreman in charge when he discovered his error and was immediately informed as to what the boundary really was. The QC inspector reiterated that the entire placement area had been properly inspected prior to initiation of concreting.

A second B&R QC inspector who had assisted the inspector of record between 6:00 a.m. and 7:00 a.m. could shed no light on the quality of the inspection on October 23, 1979, but stated that the placement area was clean and ready prior to placement. He also indicated that he was aware of the inspector of record's problem with the small uninspected area but had no reason to raise a question since he had observed that the area had finally been inspected.

The RRI subsequently interviewed some seventy-four persons of the labor force who might have possibly overheard the alleged conversation or might have some knowledge of the quality of the placement. With two exceptions, no one admitted to being a party to or overhearing the alleged conversation. One of two exceptions was the previously referenced general foreman who recalled the conversation with the inspector of record about the small uninspected area and the short ensuing delay, but could not recall the exact words used. The other exception was a carpenter crew foreman who said that he overheard a portion of a conversation between the general foreman and the inspector. The foreman stated that to the best of his recollection the inspector said, "I didn't inspect that, but I'll get on it," and indicated that the inspector was pointing to an area of the placement. The foreman was aware that the placement was held up shortly for QC to finish inspecting the area.

The various general foremen and foremen actively involved in the placement activity and cleanup process stated that they had observed and assisted the inspector of record on October 23 and October 24, 1979, and had no question as to his thoroughness. A few workers substantiated this review. Most of the workers indicated that they were not in a position to have had any specific knowledge relative to the quality of the inspections.

Based upon the results of the interviews and upon the lapsed time between when the conversation had to have taken place; ie., approximately 7:00 a.m. and the receipt of the phone call (11:15 a.m.), the RRI can only conclude that the call was a hoax. The purpose of the hoax could not be identified.

No items of noncompliance or deviation were identified.

#### 5. Piping Systems Installation and Welding

The RRI observed the general handling and installation of Reactor Coolant Pressure Boundary and other safety-related piping system components during the inspection period. These activities were accomplished in accordance

with good industry practices. The RRI examined the following weld joint radiographs for conformance to the requirements of ASME Section III:

<u>Joint Number</u>	<u>Isometric Drawing</u>	<u>Line Number</u>
FW-19	BRP-RC-1-520-1	Reactor Main Loop
FW-14	BRP-RC-1-520-1	Reactor Main Loop
FW-20	BRP-RC-1-520-1	Reactor Main Loop
FW-21	BRP-RC-1-520-1	Reactor Main Loop
FW-22	BRP-RC-1-520-1	Reactor Main Loop
FW-29	BRP-RC-1-520-1	Reactor Main Loop
FW-14-1	BRP-S1-1-RB-21	3-S1-1-339-2501R1
FW-1	BRP-S1-1-RB-053	6-S1-1-329-2501R1
FW-2	BRP-RH-1-RB-002	12-RH-1-002-2501R1
W-4	BRP-RC-1-RB-05	6-RC-1-008-2501R1
W-2	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-3	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-4	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-6	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-7	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-14	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-16	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-18	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-20	RRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-21	BRP-RC-1-RB-028B	6-RC-1-096-2501R1
W-2	BRP-RC-1-RB-028A	6-RC-1-108-2501R1
W-3	BRP-RC-1-RB-028A	6-RC-1-108-2501R1
W-5	BRP-RC-1-RB-028A	6-RC-1-108-2501R1

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W-6	BRP-RC-1-RB-028A	6-RC-1-108-2501R1
W-7	BRP-RC-1-RB-028A	6-RC-1-108-2501R1
W-9	BRP-RC-1-RB-028A	6-RC-1-108-2501R1
W-10	BRP-RC-1-RB-028A	6-RC-1-108-2501R1
W-17	BRP-RC-1-RB-028A	6-RC-1-108-2501R1
W-10	BRP-S1-1-RB-017	6-S1-102-2501R1
W-9	BRP-S1-1-RB-017	6-S1-102-2501R1
W-12	BRP-S1-1-RB-017	6-S1-102-2501R1
FW-2	BRP-S1-1-RB-053	6-S1-1-330-2501R1
FW-6	BRP-CT-2-RB-03	16-CT-2-014-301R2

The six weld joints noted above as being in the Reactor Main Coolant Loop are the last of thirty-two field welded connections in the Unit 1 Main Loop piping.

No items of noncompliance or deviations were identified.

#### 6. In-place Storage and Maintenance of Safety-Related Components

The RRI randomly selected several mechanical and electrical components during the period to observe the storage and maintenance practices being employed. Among these components were safety-related motor operated valves, main control boards, switchgear cabinets, heat exchangers, reactor pressure vessels in both units and the Unit one Reactor Vessel internals. Each of the components observed were protected by adequate covering and were being maintained in a manner commensurate with supplier instructions and/or good industry practice.

No items of noncompliance or deviations were identified.

#### 7. Construction Fire Protection

The RRI verified that an adequate number of portable fire extinguishers displaying a properly charged condition were present in areas where welding and/or flame cutting operations were observed. The RRI observed on one occasion that welding operations of a structural nature were being carried on above a cable tray containing safety-related electrical cable that was unprotected from the weld spatter. Although none of spatter fell on the cable during the sustained period of observation, this was judged to be more of a fortunate accident than a deliberate action. The RRI ascertained that at present there is no coordinated inter-craft method of controlling such welding operations. The RRI discussed the

matter with licensee construction and Quality Assurance management, both indicated an awareness of the potential problem and stated that a control method would be developed.

This matter will be considered an unresolved item pending an opportunity to review and observe implementation of such controls.

8. Electrical Cable Installation

During this period, the RRI observed the installation of a three conductor, number 6 AWG safety train A cable. The cable which runs from motor control center IEB1 to the Channel static inverter was approximately 410 ft. in length going through various segments of cable tray and conduit runs. The RRI verified that the cable utilized was of the type specified and verified, on a selective basis, that the cable was being routed as shown on the engineer furnished cable pull card. The RRI observed a portion of the cable through conduit pulling operation for consistency with project procedures. The RRI interviewed and observed the activities of the QC inspector assigned to the activity. The QC inspector appeared to be knowledgeable of the requirements and diligent in his work effort.

As a result of a licensee management audit and review of the cable installation program, the licensee determined that it was desirable to stop all safety-related cable pulling activities to allow time for an in depth review of project specifications, construction procedures and quality control procedures along with a review of appropriate personnel qualifications. The review was initiated in the latter part of the period and will probably last two to four weeks according to the licensee provided information.

No items of noncompliance or deviations were identified.

9. 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. Two such items are discussed in this report. The applicable paragraph and item title reference are as follows:

Paragraph 2: Unit 1 Containment Dome Concrete

Paragraph 7: Protection of Installed Electrical Cable

10. Management Interviews

The RRI met with one or more of the persons identified in paragraph 1 on October 9, 11, 15, and 19, 1979, to discuss various inspection findings and to discuss licensee actions and positions.