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

REGION IV

Report No. 50-445/79-16; 50-446/79-16

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 & 2

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

Inspection conducted: June 1979

Inspector: W Atkinson 7/10/79
for R. G. Taylor, Resident Reactor Inspector, Projects Section Date

Approved: W Atkinson 7/10/79
W. A. Crossman, Chief, Projects Section Date

Inspection Summary:

Inspection for June 1979 (Report No. 50-445/79-16; 50-446/79-16)
Areas Inspected: Routine inspection by the Resident Reactor Inspector (RRI) of safety related construction activities including installation and welding of reactor coolant and other piping systems, setting and alignment of major components, and storage maintenance of equipment. The inspection involved seventy inspector-hours by the Resident Reactor Inspector.
Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

*R. G. Tolson, TUGCO, Site QA Supervisor
*J. V. Hawkins, TUGCO/G&H Product Assurance Supervisor
**R. J. Gary, TUGCO, Executive Vice President & General Manager
**L. Fikar, TUSI, Executive Vice President & General Manager

The Resident Reactor Inspector also interviewed other licensee and contractor employees including members of the QA/QC and engineering staffs.

*Denotes those persons with whom the RRI held on-site management interviews.
**Denotes those persons attending an off-site management interview.

2. Potential Significant Construction Deficiencies (10 CFR 50.55(e))

a. On June 13, 1979, the licensee reported that they had been informed by Rosemount Engineering that a pair of pressure switches shipped to the site had been found to be defective. Rosemount indicated that they had no information as to the application of the defective components but felt that there was a possibility that the components might be utilized in a safety related system. The licensee has notified RIV, by letter dated June 25, 1979, that the components, low pressure transmitters, are not utilized in safety related systems and are, therefore, not reportable under the criteria of 50.55(e). The matter is considered closed.

b. The licensee reported on June 14, 1979, that a potentially serious design deficiency had been detected during an ongoing design review effort. The reviewers had found that valving and controls of the alternate emergency water source for the safety related auxiliary feedwater system have been designed in such a way that the cooling water flow for the emergency diesel generators would be severely restricted. The licensee and the engineer are continuing to evaluate this problem which will be considered an unresolved item until clarified.

c. The licensee reported on June 19, 1979, that a Class IE cable tray hanger had been discovered that had very light partial penetration welds between two structural steel elements that by design should have been full penetration welds. Two additional supports examined also revealed the same defect. The supports, which were fabricated on site by Chicago Bridge and Iron Co., had been inspected and accepted by the licensee's QA/QC organization. This item will be considered to be unresolved pending further information.

3. Site Tour

The RRI toured one or more plant areas several times weekly during the reporting period to observe the progress of construction and the general practices involved, particularly in regard to facility housekeeping.

The RRI noted some localized deterioration in housekeeping practices which, when brought to the licensee's attention, were promptly corrected. (Note: The licensee is not committed to the NRC Regulatory Guide 1.39 covering this matter and is, therefore, not in a noncompliance status.) Four of the tours were made during portions of the labor force second shift.

No items of noncompliance or deviations were identified.

4. Reactor Coolant Pressure Boundary Pipe Installation and Welding

The RRI observed on several occasions the ongoing welding of the main reactor loop piping including field welds FW-28 and 29. In each case, the welding was being accomplished utilizing the gas tungsten arc weld process (GTAW) with machines in control of the torch. The qualifications of the six welders observed setting up and guiding the machine were examined and found to be consistent with the requirements of ASME Section IX. Each machine was being operated in accordance with the qualified Weld Procedure No. 99028. The filler metal was found to be from the same heat of ER-308 previously examined as indicated in Inspection Report No. 50-445/78-22. In addition, the RRI also examined the radiographs for loop piping welds FW-5, FW-8, FW-23, FW-28 and FW-30 for compliance to the requirements of ASME Section III, Sub-section NB, and to Section V, Article 2. The radiographs in each instance revealed welding and radiograph quality meeting these code requirements. The RRI also examined radiographs of seven shop-made welds identified on Isometric Drawing No. BRP-RC-1-RB-08 and found them to also meet the requirements of the above indicated codes.

No items of noncompliance or deviations were identified.

5. Safety Related Pipe Installation and Welding

The RRI observed the handling and installation methods relative to safety related piping during several plant tours, with particular emphasis on stainless steel components. The labor force appeared to be working within the constraints of the project piping erection Specification No. MS-100 and the site approved procedures.

The RRI observed welder AZC working on weld FW-10A as shown on Isometric Drawing No. BRP-SI-1-SB-19 in line 14-SI-1-072-601R2. The work involved making a repair in the root of the weld and was being done manually with the GTAW process in accordance with a qualified procedure. The welder was subsequently verified to have been qualified in accordance with the requirements of ASME Section IX. This weld has not been completed at the time of this report and, therefore, the RRI can not determine the final weld quality. The RRI examined the documentation related to one of the four Main Feedwater lines within the reactor building, leading from the steam generators to the containment penetrations. The pipe

run selected, which is not complete, was in line 18-FW-1-18-1303-2 as shown on Isometric Drawing No. FW-1-RB-04. The RRI reviewed the Certified Material Test reports on the pipe spools making up the line and found that the materials conform to ASME Section III, Sub-section NC requirements, including those related to impact properties at low service temperatures. The RRI then examined the radiographs of the first four welds in the run, these being FW-1, FW-2, FW-3 and FW-1-1, and found each to satisfy the requirements of the above indicated code. The welders and the weld procedures noted on the Weld Data Card for these welds were found to have been qualified in accordance with the code requirements. The RRI also examined the following randomly selected radiographs of welds in various safety related systems for compliance to the applicable portion of the ASME code.

a. FW-6B, Isometric BRP-CS-1-SB-11

b. FW-6, Isometric BRP-SI-1-SB-19

c. FW-36A, Isometric BRP-SI-1-SB-14

d. FW-17-1A, Isometric BRP-CS-1-SB-15

e. FW-1A, Isometric BRP-CT-1-SB-17

f. FW-12, Isometric BRP-CS-1-SB-10

(Note: In the above Isometric numbers, SI indicates Safety Injection System; CT indicates Containment Spray; and CS indicates Chemical and Volume Control Systems. These are all essential safety related systems and are classified as Safety Class 2 and must comply with ASME Section III, Sub-section NC.)

No items of noncompliance or deviations were identified.

6. Setting and Alignment of Components

During the course of this inspection, the RRI was able to observe the installation activities relative to setting and alignment of three of the four Containment Spray pumps in the Safeguards Building. The pumps and their electric drivers were carefully set and aligned in accordance to instructions provided in an "Operations Traveler" and accompanying manufacturer's instructions. The tools used were noted as having been calibrated and were used in workmanlike manner by the supervising millwright. Alignment dimensions were verified and documented by a licensee QC person at the appropriate time.

No items of noncompliance or deviations were identified.

7. Equipment Maintenance

The RRI observed that the Unit 1 Reactor Vessel and Vessel Internals continue to be well protected in the Reactor Building. The vessel is fully covered by a steel top while the internals are covered with heavy duty plastic to keep off dust and other possible contaminants. The Unit 2 Reactor Vessel continues to be stored outdoors in a well protected area. All covers are securely in place. The Unit 1 Reactor Vessel Head with the installed control rod drive mechanisms are stored in the Reactor Building in an enclosure fabricated from wood and plastic sheeting. The RRI also observed that the various installed or semi-installed electric drive motors for pumps and valves have their space heaters operating as evidenced by being hand warm in relation to nonheated materials nearby. Unconnected vessels and heat exchangers are pressurized to reduce condensation within them during their inplace storage, as evidenced by attached pressure gages.

No items of noncompliance or deviations were identified.

8. 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 identified in paragraph 2 and will be referred to in future reports as:

a. 50-445/79-16 - Design of Auxiliary Feedwater System

b. 50-445/79-16 - Fabrication of Cable Tray Hangers

9. Management Interviews

The RRI met frequently with licensee representatives (denoted in paragraph 1 by an asterisk) at the site to discuss various RRI observations and to discuss the licensee's Significant Construction Deficiencies. In addition to the above informal meetings, the RRI and other personnel of the RRI office met with licensee representatives (denoted in paragraph 1 by two asterisks) to discuss a perceived morale problem as stated in Inspection Report 50-445/79-15; 50-446/79-15 letter of transmittal.

The licensee representatives agreed to an extent with the NRC RIV perception that morale was low among the site labor and QC forces. The licensee indicated that they felt that the perception was largely based on the number of recent allegations of poor or improper construction and/or quality control practices received by the NRC or published in area newspapers. The licensee representatives attributed much of the

problem to allegations made by persons who had terminated voluntary or had been terminated for cause during the past two years and were attempting to strike back at either Brown & Root or at their subcontractors. The RIV representatives concurred that this might be a factor. The RRI indicated that he was of the opinion, based on discussions with various labor force people, that they often do not understand the relative importance of what they are doing which might be indicative of a communications or an indoctrination problem which might lead to a morale problem. The licensee representatives indicated that they have recently undertaken a training program for the labor force foremen in an effort to teach them to be better supervisors and managers of their crews. In conjunction with this training, the licensee has initiated a formal labor crew audit program aimed in part at identifying labor personnel that have not received the necessary training or indoctrination to properly perform their assigned tasks. The licensee indicated that these were long term programs with often intangible results, but hoped that improvements could be achieved. The licensee remained firm in their stated belief that there will always be some amount of dissatisfaction in a labor force which currently totals well over four thousand persons with diverse backgrounds, talents and abilities and that this dissatisfaction may manifest itself in public allegations of wrongdoing from time to time.