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

Report No. 50-445/79-06; 50-446/79-06

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: March 1 through 30, 1979

Inspectors: W A Crossman 5/10/79
for R. G. Taylor, Resident Reactor Inspector, Projects Section Date

L E Martin 5/10/79
L. E. Martin, Reactor Inspector, Engineering Support Section (Paragraph 8 only) (March 19-29, 1979) Date

Approved: W A Crossman 5/10/79
W. A. Crossman, Chief, Projects Section Date

R E Hall 5/10/79
R. E. Hall, Chief, Engineering Support Section Date

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Inspection Summary:

Inspection on March 1-30, 1979 (Report No. 50-445/79-06; 50-446/79-06)

Areas Inspected: Routine inspection by Resident Reactor Inspector (RRI) and an RIV inspector from the regional office of safety related construction activities including installation and welding of the reactor coolant and other piping systems; storage and maintenance of equipment; concrete placement activities; installation of electrical cable tray supports and follow up on various unresolved matters. The inspection involved eighty inspector-hours by two NRC inspectors.
Results: One item of noncompliance (infraction - Failure to follow QC inspection procedures was identified in one of the seven areas inspected - paragraph 8).

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DETAILS

1. Persons Contacted

Principal Licensee Employees

*J. [illegible] George, TUSI, Project General Manager
*R. G. Tolson, TUGCO, Site QA Supervisor
*J. V. Hawkins, TUGCO/G&H Product Assurance Supervisor
*D. E. Devaney, TUGCO, QA Technician

Other Personnel

*H. O. Kirkland, Brown and Root (B&R), Project General Manager
U. D. Douglas, B&R, Construction Project Manager

*denotes those attending the exit interview.

2. Licensee Action on Previous Findings

(Closed) Infraction (50-446/79-03): Failure to Follow Concrete Placement Procedures. The licensee notified RIV by letter dated March 6, 1979, that actions had been taken to increase the awareness of B&R QC personnel relative to concrete placement practices both by instruction and by addition of a specific checklist item in the pre-placement checklists. The RRI has verified that both of these actions have been completed and appear to have been effective as evidenced by observations made during a subsequent comparable placement; i.e., Placement 201-5805-025. The RRI had no further questions regarding this matter.

(Closed) Deviation (50-445/79-04): Failure to Achieve Adequate Separation Between Redundant Safety Related Wiring. The licensee notified RIV by letter dated March 20, 1979, that the Unit 1 main control boards have been reinspected and that all observed discrepancies have been corrected. The licensee also stated corrections will be made in the vendor's quality assurance program to preclude recurrence. The control boards and all other safety related electrical panels will be inspected by NRC personnel during future field termination work and the adequacy of the licensee's action thereby verified. The RRI had no immediate further questions on this matter.

3. Resolution of 10 CFR 21 Item

By letter dated February 16, 1979, the General Electric Co., Distribution Assemblies Department, notified RIV that a defect as defined by Part 21

had been found in equipment supplied to Comanche Peak Unit 1. The defect, involving an ammeter in each of two switchboards that had been supplied, was such that it would indicate twice the current actually flowing in the circuit being monitored. General Electric personnel visited the site on February 16, 1979, and changed the meters as indicated in the above referenced letter. The action was monitored and documented by an electrical engineer employed by the licensee and assigned to the licensee's site quality assurance organization. The RRI discussed the matter with the engineer and reviewed the final documentation package and had no further questions.

4. Plant Tours

The RRI toured one or more plant areas several times weekly during the reporting period to observe the progress of construction of safety related structures and the installation and maintenance practices as they apply to safety related equipment. Two of the tours were made during portions of the second shift. Housekeeping continues to improve in the safety related areas.

No items of noncompliance or deviations were identified.

5. Receipt and Off-Loading of Unit 2 Reactor Vessel

The RRI observed on March 3, 1979, the receipt and off-loading of the Unit 2 reactor pressure vessel. The vessel arrived on-site via a Westinghouse furnished "Schnabel" railroad car. The vessel was examined for evidence of damage, necessary rigging cables with spreader bars were attached, and the vessel was lifted off the car. It was then transversed in a smooth arc to the previously prepared storage cradle and lowered into its rest position. All activities were accomplished in accordance with an operations traveler and a crane layout drawing previously reviewed by the RRI.

No items of noncompliance or deviations were identified.

6. Unit 2 Containment Concrete Placement Activities

The RRI observed the placement of a portion of four hundred-forty cubic yards of concrete placed on March 6, 1979, in the Unit 2 containment wall. The placement, identified as 201-5805-025, was being accomplished using pumped concrete discharged into the formwork through a ring header, appropriately spaced discharge valves and "elephant trunks." The concrete was being placed and consolidated consistent with good concrete placement practices.

On March 9, 1979, the RRI reinspected the placement to verify that the placement was being properly cured. The RRI observed that a crew was assigned to operate sprinklers and that the concrete surfaces were uniformly wet, indicating sound curing practices.

During the placement activities on March 6, 1979, the RRI also observed the concrete testing laboratory personnel performing routine tests of the fresh concrete, and found all activities being accomplished consistent with site procedures and applicable ASTM requirements.

The RRI also visited the concrete batch plant and verified that Design Mix 133 was being batched in correct proportions on scales that had been calibrated February 26, 1979, in accordance with the calibration schedule.

No items of noncompliance or deviations were identified.

7. Pipe Welding and Nondestructive Testing

During the reporting period the RRI observed the progress of automatic machine welding on the reactor loop piping and other safety related systems. In each instance the RRI verified that the machine control settings were in accordance with the qualified weld procedure and that the welding operators were very attentive to the adjustments and performance of the welding head. The qualifications of newly qualified welders BAL and ANS were verified as being consistent with ASME Section IX requirements for welding operators.

The RRI reviewed the acceptance level radiographs for Reactor Coolant System weld FW-3 and FW-11 as well as Containment Spray System weld FW-3A as identified on isometric drawing BRP-CT-SB-06-1. The radiographs in each instance indicated that the weld was acceptable in accordance with the criteria provided in ASME Section III. The radiographs displayed sensitivity within the requirements of ASME Section V.

No items of nomcompliance or deviations were identified.

8. Electrical Cable Tray Support Systems - Unit No. 1

a. Document Review

The regional inspector assisting the RRI reviewed the following procedures, specifications and drawings during the course of the inspection:

(1) 35-1195-ECP-10, Revision 4, Class 1E Cable Tray and Hanger Installation

(2) QI-QP-11.3-2, Revision 7, Cable Tray Hanger Inspection

(3) Welding Specification S52.01-106B

(4) Chicago Bridge and Iron Welding Procedure WPS-E7018/81816

(5) Gibbs and Hill Drawing E1-0602-03-S, Revision 2 Safeguard Building Cable Tray Support Plan Elev. 831'6" and associated reference drawings

(6) Brown and Root Drawing FSE-00159, sheets 2705 and 2773, both Revision 1

(7) Construction Operation Travelers ELE 79-CTH-2705 and ELE 79-CTH-2773.

b. Examination Results

(1) During the review of the B&R Operation Travelers ELE 79-CTH-2705 and 2773 and in discussions with the cognizant B&R electrical inspector, it became apparent that the cable tray hangers had been inspected in accordance with QI-QP-11.3-2 as non-Class IE hangers relative to the work involved in field welding and installation. Gibbs and Hill Drawing E1-0602-03-S, however, indicated that the hangers in question supported Class IE cable trays and were therefore Class IE themselves. The above indicated QI required that these hangers be inspected for field welding and proper installation including proper location which are not required for non-Class IE hangers. The licensee representative concurred with the inspector's finding and agreed that hangers 2705 and 2773 were, in fact, Class IE and should have received a complete inspection. The licensee subsequently informed the inspector that a preliminary investigation indicated that at least forty other Class IE hangers had also been inspected as non-Class IE. The licensee indicated that all hanger operation travelers would be reviewed as a result of this finding which is an item of noncompliance with Appendix B, 10 CFR 50.

(2) During the inspector's review of QI-QP-11.3-2, Revision 7 and Operation Travelers for non-Class IE cable tray hangers, he questioned the licensee's practice of not inspecting welds on non-Class IE hangers in Category I structures. The licensee representative informed the inspector that these hangers were being designed as Category I, but that the attachment bolted to the wall or ceiling was the only portion that was being inspected and that the welding does not require inspection where non-Class IE items are involved.

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The CPSES FSAR Chapter 17, table 17A-1, sheet 33 indicates that cable raceway including supports for non-Class IE are seismic Category I items and will meet portions of Appendix B; the portions to be furnished at a later date per reference note 27.

The licensee representative indicated that a review of non-Class IE supports would be made after installation is complete to assure that non-Class IE supports and/or cable tray failures will not degrade class IE installations. This matter is considered an unresolved item pending clarification of the quality assurance criteria and acceptance requirements for non-Class IE supports which are in seismic Category I structures.

9. Unit 1 Reactor Vessel and Vessel Internals

The RRI verified that the Unit 1 reactor vessel continued to be well protected during the storage period. The reactor vessel internals were stored in warehousing facilities earlier in the month in the same manner as the past several months. On or about March 24, the internals were removed from the warehouse and moved to their refueling pool storage stands in the Unit 1 containment. The internals continue to be covered and otherwise protected by the factory furnished covers.

No items of noncompliance or deviations were identified.

10. Safety Related Piping Materials

Reacting to a concern developed by the RIV Vendor Inspection Branch relative to sensitized stainless steel pipe that might have been shipped to the site for installation from ITT Grinnell, the RRI conducted a preliminary review of isometrics in the most important systems from a safety standpoint to attempt to scope out the extent of the problem. The RRI then picked a number of candidate samples from the uninstalled piping storage yard. The pipe selected was in the form of prefabricated spools which contained bends, typically in relatively heavy wall material where hot bending would be appropriate. The initial inspection indicated that about eighty percent of the items sampled had well documented records indicating that the spools had been solution annealed to remove the sensitization. The records for several other spools, however, did not indicate whether the material had been bent hot or cold nor whether a solution anneal had been performed if bent hot. The RRI also reviewed the procurement specification for the fabricated spools, MS-43A, to determine the engineer's requirements. The specification requires that solution annealing be performed not only for hot bent material, but also for any

stainless steel pipe bent to a radius of five pipe diameters or tighter, whether bent hot or cold. The specification was so worded that confusion may have developed at the vendor level as to what was really required versus what was intended. The RRI asked that the VIB inspectors visit the site and conduct an in-depth review of the problem. This review, which is discussed in Report 50-445/79-07 developed into an unresolved item which has not yet been resolved.

11. 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. One such item relating to the quality control requirements for non-Class IE cable tray supports located in Category I structures is identified in paragraph 8.

12. Management Interviews

The RRI met with licensee representatives (denoted in paragraph 1) on March 13 and March 29, 1979, to discuss findings which had developed prior to each of the meetings.