

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF SPECIAL PROJECTS

NRC Inspection Report: 50-445/88-57
50-446/88-53

Permits: CPPR-126
CPPR-127

Dockets: 50-445
50-446

Category: A2

Construction Permit
Expiration Dates:
Unit 1: Extension request
submitted.
Unit 2: Extension request
submitted.

Applicant: TU Electric
Skyway Tower
400 North Olive Street
Lock Box 81
Dallas, Texas 75201

Facility Name: Comanche Peak Steam Electric Station (CPSSES),
Units 1 & 2

Inspection At: Comanche Peak Site, Glen Rose, Texas

Inspection Conducted: August 3 through September 8, 1988

Inspector: *H. Svermore* 9-21-88
for H. S. Phillips, Senior Resident Inspector Date
Construction

Reviewed by: *H. H. Livermore* 9-21-88
H. H. Livermore, Lead Senior Inspector Date

Inspection Summary:

Inspection Conducted: August 3 through September 8, 1988 (Report 50-445/88-57; 50-446/88-53)

Areas Inspected: Unannounced, resident safety inspection of applicant's actions on previous inspection findings, follow-up on violations/deviations, action on NRC Bulletins, and general plant inspections.

Results: Within the areas inspected, no violations, deviations, open or unresolved items were identified. A significant strength was noted in that the applicant had fully reviewed and satisfactorily prepared 14 packages (2 unresolved items, 4 violations, 2 deviations, and 6 bulletins) in preparation for closeout by the NRC.

DETAILS1. Persons Contacted

- *R. P. Baker, Licensing Compliance Manager, TU Electric
- *J. L. Barker, Manager, Engineering Assurance, TU Electric
- *W. G. Council, Executive Vice President, TU Electric
- C. G. Creamer, Instrumentation & Control (I&C) Engineering Manager, TU Electric
- *G. G. Davis, Nuclear Operations Inspection Report Item Coordinator, TU Electric
- *T. L. Heatherly, Licensing Compliance Engineer, TU Electric
- *R. T. Jenkins, Manager, Mechanical Engineering, TU Electric
- *D. M. McAfee, Manager, QA, TU Electric
- *L. D. Nace, Vice President, Engineering & Construction, TU Electric
- *A. B. Scott, Vice President, Nuclear Operations, TU Electric
- *J. S. Smith, Plant Operations Staff, TU Electric
- *P. B. Stevens, Manager, Electrical Engineering, TU Electric
- *J. F. Streeter, Director, QA, TU Electric
- *R. D. Walker, Manager of Nuclear Licensing, TU Electric
- *J. R. Waters, Licensing Compliance Engineer, TU Electric

The NRC inspectors also interviewed other applicant employees during this inspection period.

*Denotes personnel present at the September 8, 1988, exit meeting.

2. Applicant's Action on Previous Inspection Findings (92701)

- a. (Closed) Unresolved Item (445/8608-U-04; 446/8606-U-04): An insufficient number of procedures for special processes were audited. The NRC inspector reviewed the responses to violations concerning audits and also several NRC inspections of generic corrective action programs as discussed in paragraph 3.a below. No further violations or deviations were identified. This item is closed.
- b. (Closed) Unresolved Item (445/8608-U-05; 446/8606-U-05): An insufficient number of inspection procedures were audited. The basis for closeout is the same as described in paragraph 2.a above. This item is closed.

3. Follow-up on Violations/Deviations (92702)

- a. (Closed) Violation (445/8608-V-01; 446/8606-V-01): Failure to fully audit ASME/QA program. The NRC inspector reviewed TU Electric response (TXX-6469) which acknowledged the need for improved audit planning. An

audit planning form was specifically designed to ensure that the complete ASME QA Manual would be audited. Subsequent NRC Inspection Report 50-445/88-01, 50-446/88-01; and portions of previous Inspection Reports 50-445/86-07, 50-446/86-05; and 50-445/86-03, 50-446/86-02 documented subsequent reviews of the audit program. These reviews also included overviews of Corrective Action Programs (CAP), Comanche Peak Response Team (CPRT) and Issue Specific-Action Plan ISAP VII.a.4. No further violations or deviations were identified. This item is closed.

- b. (Closed) Violation (445/8608-V-02; 446/8606-V-02): Failure to provide adequate documentation to support adequate audit of field design changes. The NRC inspector reviewed TU Electric response (TXX-6469). The corrective action was to provide better backup documentation. As discussed in paragraph 3.a above, the NRC has completed inspections of the audit program. This item is closed.
- c. (Closed) Violation (445/8608-V-03; 446/8606-V-03): Failure to provide adequate documentation of audits of special processes. The basis for closeout is the same as paragraph 3.a. This item is closed.
- d. (Closed) Deviation (445/8608-D-06; 446/8606-D-06): B&R audit Procedure CP-QAP-19.1, dated October 10, 1984, does not agree with TU Electric Procedure DQP-QA-15 or ANSI N45.2.12 because B&R changed the commitment for supplemental audit criteria from "are performed" to "may be performed". NRC letter, R. F. Warnick to TU Electric, W. G. Council of September 14, 1987, withdrew the subject item as a deviation. This item is closed.
- e. (Closed) Deviation (445/8608-D-07; 446/8606-D-07): TU Electric Procedure DQP-QA-15, Revision 0, left out part of the supplemental audit criteria of ANSI N45.2.12. The NRC inspector reviewed TU Electric response (TXX-6469) which provided information that was not made available during the inspection. That is, TU Electric pointed out that this missing criteria was in another Procedure DQP-VC-11, "Vendor Evaluation Methods." Although, this criteria was not specifically stated in this audit procedure, the NRC inspector reviewed the purchasing procedure (selection of vendors) and confirmed the presence of the subject. The NRC advised TU Electric in NRC letter dated September 14, 1987, that this deviation was withdrawn after receiving this additional information. This item is closed.

- f. (Closed) Violation (445/8620-V-05a; 446/8617-V-05a): Travelers were not revised as required by paragraph 3.6 of Construction Procedure CP-CPM-6.3.

The NRC inspector reviewed page 12 of TU Electric response TXX-6504 which acknowledges the violation. The NRC inspector reviewed the disposition of Deficiency Report (DR)-C-87-2250 which required clarification of Procedure CP-CPM-6.3. Training was provided for the procedure to assure compliance and preclude repetition. This item is closed.

4. Action on NRC Bulletins (92700)

- a. (Closed) NRC Bulletin 78-07, "Protection Afforded by Airline Respirators and Supplied-Air Hoods." This NRC Bulletin was issued after airflow to respirators was found to be significantly less than previously estimated when NRC guidance (Regulatory Guide 8.15, Table 1) was applied. The NRC Bulletin required: (1) a factor no greater than 5 for half mask and demand mode air lines for full mask, (2) protection factor of 1000 for hoods with 5 cubic feet/minute (cfm) and a calibrated gauge, and (3) protection factor of 2000 for air hoods (when airflow is per manufacturer's recommendations) with greater than 6 cfm on a calibrated gauge.

The NRC inspector found that TU Electric's FSAR, page 12.5-11, states that they will follow Regulatory Guide 8.15 and 10 CFR Part 20, Section 20.103.

The NRC inspector reviewed TU Electric's Respiratory Protection Program described in Procedure HPA-102. The selection of equipment is governed by HPI-905, "Selection of Respiratory Protection Equipment." HPI-908, "Maintenance/ Calibration of Fit Test Equipment," addresses fit and calibration. In a previous report, the NRC inspector reported that these documents did not address factors of safety. During this inspection period, the NRC inspector was presented additional information which showed that the factors of safety are included. The reason the factor of safety was left out for half-full mask (demand mode air lines) was because they do not use this type mask. This item is closed.

- b. (Closed) NRC Bulletin 79-03, "Longitudinal Weld Defects in ASME SA-312 Type 304 Stainless Steel Pipe Spools Manufactured by Youngstown Welding and Engineering Company." A supplier discovered defects in the subject piping during radiographic and ultrasonic testing. TU Electric letter TXX-2983 stated that pipe spool pieces manufactured by Youngstown were used on the Comanche Peak

site. The pipe spools were identified and radiographed on site and 1 of 12 spools contained unacceptable defects. The supplier, ITT Grinnell, was directed to perform 100% radiography on the longitudinal welds prior to shipping any other spool pieces to the site.

The NRC inspector was satisfied with the corrective action discussed above, but left this item open pending field verification. The NRC mobile nondestructive examination (NDE) van personnel performed field inspections and recommended that this NRC Bulletin be closed. The details are discussed in NRC Inspection Report 50-445/88-48; 50-446/88-43. This item is closed.

- c. (Closed) NRC Bulletin 80-08, "Examination of Containment Liner Penetration Welds": This NRC Bulletin was issued because an operating plant found that certain nondestructive examinations (NDEs) performed on the liner did not satisfy ASME Boiler and Pressure Vessel Code requirements. The specific area questioned was the mechanical penetration flued head to outer sleeve welds that form a part of the containment pressure boundary. TU Electric letter TXX-3155 stated that this design is used at Comanche Peak and gave the applicable code as ASME III, 1974 through summer 1976 addenda. The nondestructive examination method (Radiographic Testing), weld joint design (butt) with consumable insert (no backing bar), a list of Unit 1 and 2 penetrations that were repaired were also provided. This NRC Bulletin file contained NCRs, NDE reports, and field weld records. At the time this response was made, some welds were in-process.

The NRC inspector reviewed the file for NRC Bulletin 80-08. Subsequently, NRC mobile NDE van personnel performed field inspections of this area as documented in NRC Inspection Report 50-445/88-48; 50-446/88-43. Based on this work the item is closed.

- d. (Closed) NRC Bulletin 80-11, "Masonry Wall Design": This NRC Bulletin concerned the structural integrity of concrete masonry walls with attached seismic Category I piping and the interaction between the two. The NRC inspector reviewed this item in NRC Inspection Report 50-445/88-12; 50-446/88-10 and a Notice of Violation (NOV) was issued because the Design Change Authorization (DCA) 23040, Revision 3, conflicted with the statements in FSAR Volume XVI (Response 130.36). The NRC inspector randomly selected two DCA files (35700 - 35719; 35720 - 35739) which contained 39 DCAs concerning civil, electrical, or mechanical components. The purpose of the review was to determine if other DCAs were processed by

the applicant without determining if the change affected licensing documents. It appears that the issue with DCA 23040 is an isolated case. In a previous NRC report, this item remained open pending the completion of the modification of masonry walls as described in the FSAR. However, there is no need to keep this NRC Bulletin file open because the modification can be inspected during a future NRC inspection in conjunction with the follow-up on the violation discussed above.

- e. (Closed) NRC Bulletin 81-01, "Surveillance of Mechanical Snubbers": This NRC Bulletin was issued after 11 of 14 International Nuclear Safeguards Corporation (INC) Model MSUA-1A snubbers were found to be inoperable at five operating plants (including inoperable snubbers [Model TSA-3] manufactured by Pacific Scientific Company). This NRC Bulletin and Revision 1 required: (1) visual inspection for damage and free movement, (2) operability testing, and (3) an inspection program for mechanical snubbers for operating plants and similar actions for certain plants prior to fuel loading.

The NRC inspector reviewed this NRC Bulletin file which contained the NRC Bulletin, Revision 1 transmitted by NRC Region IV to Texas Utilities requiring no response. The file contained documents including SWEC review dated July 29, 1987, which concluded that no response was required. The specific make and model of the snubbers described in the NRC Bulletin were placed on a defective items list to prohibit the purchase of such snubbers. During the previous inspection, this item was left open pending the receipt of information to show that no action is required. Information was provided which showed that all snubbers must be inspected for operability during operating modes 1, 2, 3, and 4. This item is closed.

- f. (Closed) NRC Bulletin 82-01, "Alteration of Radiographs of Welds in Piping Subassemblies": This NRC Bulletin was issued after Washington Public Power Supply System found radiographs of 21 shop welds altered; i.e., the "4T" hole image was enhanced by lead pencil, scribing, or indenting the image. TU Electric letter TXXX-3591 dated November 17, 1982, stated that all radiographic film for Units 1 and 2 piping subassemblies furnished by ITT Grinnell was reviewed. Class 1, 2, and 3 piping included 3949 welds and 39,760 radiographs of these welds. One hundred and fifty-five radiographs affecting 81 welds appeared to have had the penetrometer enhanced with a soft lead pencil. One appeared to have been enhanced with an ink pen. All but six welds were found to meet ASME code requirements and the six were reradiographed.

The NRC inspector reviewed Deficiency Reports (DRs) (NCR M-4223, M-4225 and M-4226) that were closed on December 9, 1982. One good film of double set film allowed M-4224 and M-4225 to be closed. Six welds in M-4223 and M-4226 were reradiographed per ASME, Division III, NC 5000. Other welds were dispositioned by adopting Code Case N292 into Specification 2323-MS-43A and by obtaining code data reports from the vendor.

The NRC inspector considers this NRC Bulletin closed based on the review discussed above and the field inspection performed by NRC mobile NDE van personnel (NRC Inspection Report 50-445/88-48; 50-446/88-43). This item is closed.

5. General Plant Inspections (47054, 49063, 50053, 51063, 50073)

At various times during the inspection period, the NRC inspector conducted general inspections of the Unit 1 reactor containment, safeguards, auxiliary, electrical control, and the diesel generator buildings. All accessible rooms in these buildings were inspected to observe current work activities with respect to major safety-related equipment, electrical cable/trays, mechanical components, piping, welding, and coatings. The housekeeping storage and handling conditions inside these buildings and various outside storage areas were also inspected. Fire/protection controls were observed.

Work activities that were selected for more detailed inspections are described in paragraphs a. and b. below.

- a. The NRC inspector observed work activity in the Unit 1 Safeguards Building at the 790 foot elevation. Stainless steel piping was being removed. The work package was at the worksite and included Design Change Authorization (DCA) 75632, Revision 0. This DCA authorized the removal of 800 feet of 10, 6, 4 and 2-inch piping that runs from the refueling water storage tank to the containment spray pumps. The engineering justification was that design limitations require the containment pumps to operate before containment spray injection. Therefore, the containment miniflow lines must be upgraded from nonsafety related to safety-related piping, ASME Class 2. The applicant reported this deficiency to the NRC and corrective action is in progress as discussed above.
- b. The NRC inspector observed concrete truck RT-35 which was outside the Safeguards Building. A QC inspector was at the point of delivery and explained all concrete tests performed as well as the report which showed that the concrete for pour number 105-9808-001 was satisfactory. The placement was hauled by wheelbarrow to room 65 on the

790 foot elevation of the Safeguards Building where a wall was being repaired. This repair was necessary since concrete had been chipped out to establish the seismic gap between the reactor and Safeguards Building.

The NRC inspector observed work activity at several other locations in the Auxiliary and Safeguards buildings where work was in progress to clean debris or concrete from the seismic gaps. This work has been in progress for about four years and has previously been inspected by several other NRC inspectors.

No violations or deviations were identified.

6. Exit Meeting (30703)

An exit meeting was conducted September 8, 1988, with the applicant's representatives identified in paragraph 1 of this report. No written material was provided to the applicant by the inspectors during this reporting period. The applicant did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection. During this meeting, the NRC inspectors summarized the scope and findings of the inspection.