APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-445/90-43
50-446/90-43

Operating License: NPF-87
Construction Permit: CPPR-127

Dockets: 50-445
50-446

Licensee: TU Electric
Skyway Tower
400 North Olive, L.B. 81
Dallas, Texas 75201

Facility Name: Comanche Peak Steam Electric Station (CPSES)

Inspection At: CPSES, Glen Rose, Somervell County, Texas

Inspection Conducted: November 13-16, 1990

Inspector: for J. Barnes 12-7-90
W. M. McNeill, Reactor Inspector, Materials and Quality Programs Section, Division of Reactor Safety — Date

Approved: J. Barnes 12-7-90
I. Barnes, Chief, Materials and Quality Programs Section, Division of Reactor Safety — Date

Inspection Summary

Inspection Conducted November 13-16, 1990 (Report 50-445/90-43)

Areas Inspected: No inspection of Unit 1 was conducted.

Results: Not applicable.

Inspection Conducted November 13-16, 1990 (Report 50-446/90-43)

Areas Inspected: Routine, unannounced inspection of the quality assurance manual and licensee's overview of engineering contractor activities.

Results: The Quality Assurance (QA) program appeared to be adequately defined and requirements were satisfactorily identified in lower tier procedures for Unit 2. In review of the licensee's overview of engineering contractor activities, a deviation was identified (paragraph 3.2.2) pertaining to the failure to perform Engineering Assurance (EA) evaluations and surveillance of Unit 2 engineering contractor activities, as committed to by TU Electric letter TXX-88373 to the NRC dated April 14, 1988. This deviation relates to a reorganization in June 1989, in which the EA Surveillance unit was transferred to QA, thereby eliminating the separate EA surveillance of contractor engineering activities. It was noted that a Unit 2 Engineering organization was in place which was responsible for performing oversight and evaluations of contractor engineering performance. Weaknesses were noted with respect to the adequacy and implementation of procedures for contractor engineering oversight, for which an inspector followup item was identified (paragraph 3.2.3). QA was found to be satisfactorily implementing its program for audits and surveillances of engineering contractors.

DETAILS

1. PERSONS CONTACTED

1.1 TU ELECTRIC

J. L. Barker, Manager, Independent Safety Engineering Group (ISEG)
*O. Bhatty, Issue Interface Coordinator
R. W. Braddy, Project Engineering Manager
*H. D. Bruner, Senior Vice President
*R. D. Calder, Manager of Design Basis Engineering
*H. M. Carmichael, Unit 2 Engineering Assurance (EA) Manager
*W. G. Guldemond, Manager Site Licensing
S. W. Harrison, Unit 2 Engineering Manager
T. L. Heatherly, Licensing Engineer
*C. R. Hooton, Deputy Project Engineering Manager
*J. C. Hicks, Licensing Manager
S. V. Lakdawala, Engineering Supervisor
L. N. Johnson, Trend Analyst
*D. M. McAfee, Manager, Quality Assurance (QA)
*D. E. Pendleton, Assistant Project Manager
W. J. Sturtz, Lead QA Auditor
W. R. Syfrett, Senior Engineer
*C. L. Terry, Director, QA
J. E. Thomson, Senior Engineer
*J. E. Wren, QA Construction Manager
*L. G. Yeager, Unit 1 Manager EA
J. P. Ziemian, Procurement Quality Engineer

1.2 CASE

*E. F. Ottney, Program Manager

1.3 NRC

*D. D. Chamberlain, Project Section Chief
*R. M. Latta, Senior Resident Inspector Unit 2

*Denotes those attending the exit interview conducted on November 16, 1990.

The inspector also interviewed other TU Electric personnel during the inspection.

2. REVIEW OF QA MANUAL (35100)

2.1 Objective

The objective of this inspection was to determine whether QA plans, instructions, and procedures for safety-related activities have been established in accordance with the QA manual and whether these documents conform to the program described in Chapter 17.1 of the Final Safety Analysis Report (FSAR).

2.2 Organization Structure and Personnel

The inspector ascertained that it was planned to reorganize the QA Department on November 19, 1990, into a Nuclear Overview Department. The Director of QA will be retitled Director of Nuclear Overview with five sections reporting to him. The Independent Safety Engineering Group (ISEG) which was originally part of the Technical Interface Department will be moved into the Nuclear Overview Department and reorganized to consist of two subunits (i.e., surveillance and assessment). In addition, the Plant Evaluation Department will be relocated to the Nuclear Overview Department and become the Trending and Analysis Section. This section will consist of two subunits (i.e., trending analysis and event analysis). The staffing size will remain the same for Trending and Analysis and increase for ISEG because it will assume responsibility for surveillance functions previously performed by Operations QA.

The remaining three sections [Construction Quality Control (QC), Operations QC, and QA] will remain the same except for the QA Section. The QA Section will be reorganized from four subunits (Quality Operations, Quality Program, Quality Construction, and Quality Technical Support) to three subunits (Construction QA, Operations QA, and Procurement QA). Procurement QA has been a subunit reporting directly to the Director, QA. The staffing of the QA section will be slightly reduced with the moving of staff to the new ISEG Section.

2.3 Program

The QA program description in Chapter 17.1 was implemented by Nuclear Engineering and Operations Policy Statements, Nuclear Engineering and Operations Procedures, "Site-Wide" Procedures, and a CPSES QA Manual. The QA Department's activities were further implemented in lower tier documents by a Nuclear QA Procedures Manual and Nuclear Quality Instructions. The Construction QC Section was found to be staffed by Stone & Webster personnel which worked to the CPSES QA program and its own Construction Quality Procedures. A Brown and Root group was matrixed to the Construction QC Section which worked to its own QA program. This program was described by a QA Manual as well as administrative, construction, and quality procedures for ASME Section III activities.

Within the Quality Construction subunit of the QA Section, an Ebasco Services Inc. group was matrixed which worked to its own program. This program was described by a QA Manual and implementing procedures. This group was known as the code control group.

No violations or deviations were identified in this area of the inspection.

3. LICENSEE'S OVERVIEW OF ENGINEERING CONTRACTOR ACTIVITIES (35020)

3.1 Objective

The objective of this inspection was to determine whether the licensee's implementation of its responsibilities relating to overview of engineering contractors is consistent with the status of the nuclear project and the QA program described in the FSAR and other commitments.

3.2 Overview Program

The responsibilities for review of engineering contractors were found to have been assigned to QA, Engineering Assurance (EA), and Unit 2 Engineering. The inspector performed a review of program requirements and implementation for each of these groups.

3.2.1 QA

The QA overview requirements were found to be defined in the following procedures:

- NQA 3.07, "Quality Assurance Audit Program," Revision 6
- NQA 3.23, "Surveillance Program," Revision 4
- NQA 3.14, "Control of Vendor Activities," Revision 6
- NQA 1.16-1.01, "Indoctrination, Training and Certification of Auditors and Lead Auditors," Revision 3
- NQA 1.16-4.01, "Indoctrination, Training, and Qualification of Quality Assurance Surveillance Personnel," Revision 2

The QA audits and surveillances of engineering activities were reviewed. It was found that Procurement QA had performed a QA program audit (QAA-90-276) of Bechtel's offsite engineering office in order to remove an Approved Vendor List restriction. Quality Construction had performed two surveillances of the three engineering contractors (Bechtel, Stone & Webster, and ABB Impell) pertaining to specification commitments (QAS-90-552) and the post construction hardware validation program (QAS-90-540). In addition, Quality Construction had performed three surveillances of Stone & Webster pertaining to electrical device walkdowns (QAS-90-524), electrical separation (QAS-90-550), and penetration walkdowns (QAS-90-562). Two audits had been performed by Quality Construction

of Stone & Webster and ABB Impell. Audit QAA-90-056 on the Integrated Nuclear Data Management System reviewed both Stone & Webster's and ABB Impell's onsite engineering activities. Audit QAA-90-055 was in-process as of this inspection and pertained to the ABB Impell QA program for its onsite engineering. The above surveillances and audits were found to have been performed to a schedule, were preplanned, and were executed by qualified personnel in accordance with the established procedures. Followup and close out of findings could not be verified because the surveillances and audits were recent activities.

3.2.2 Engineering Assurance

The EA overview requirements were found to be defined in the following procedures:

- 2PP-1.01, "Organization and Responsibilities of the Unit 2 Project Organization," Revision 0

- 2EP-3.23, "Engineering Activities Overview and Evaluation Procedure," Revision 0

During review of EA activities, the inspector noted that establishment of this function was documented in TU letter TXX-4946 dated August 4, 1986, to the NRC as corrective action in response to escalated enforcement violations 86-09 and 86-63. It was further noted that a later letter, TXX-88373 dated April 14, 1988, provided a response to an NRC staff request for an explanation of the applicability of the Corrective Action Program to CPSES Unit 2. Attachment A to this letter states that the EA organization ". . . maintains design control procedures and provides necessary training in their use, and conducts technical evaluations and surveillance of engineering activities to assure technical adequacy and compliance with design control procedures and licensing commitments." Attachment A additionally identified that the audit responsibilities of the Technical Audit Group would be assumed by the permanent audit and surveillance sections within the QA Department with expanded capabilities, including transferred personnel from the Technical Audit Group or acquired personnel with the requisite education, experience, and training.

The inspector observed that Procedure 2PP-1.01 identified that EA was responsible for training and coordinating procedures and audits, but did not identify that EA was responsible for performing evaluations and surveillances. Procedure 2EP-3.23 identified, however, that the Unit 2 EA Manager was responsible for performing or participating in evaluations. The inspector ascertained that EA had not performed any evaluations or surveillances and, including the manager, had a staff of four. It was additionally ascertained from licensee personnel that the licensee had transferred the EA surveillance unit to QA in June 1989, thereby eliminating the separate EA surveillance of contractor engineering activities. The failure to perform EA evaluations and surveillances of Unit 2 contractor engineering activities is an apparent deviation from commitments made in TU Electric letter TXX-88373 dated April 14, 1988, to the NRC. (446/9043-01)

3.2.3 Unit 2 Engineering

The inspector noted that Procedures 2PP-1.01 and 2EP-3.23 identified Unit 2 Engineering as being responsible for performing oversight and evaluations of contractor engineering performance. As of this inspection, Unit 2 Engineering had performed and issued 11 evaluations of Stone & Webster, completed but not issued 2 evaluations of Bechtel, and was in the process of performing an evaluation of ABB Impell.

The inspector found that procedural requirements for evaluations were not fully implemented. For example, only 3 of the 11 Stone & Webster evaluations had prepared assessment plans required by paragraph 6.3 of Procedure 2EP-3.23. Assessment plans are utilized for defining the scope of the evaluation and listing of the attributes to be assessed. It was also found that the two Bechtel evaluations did not have assessment plans. It was additionally noted that the 11 Stone & Webster evaluations had resulted in 33 Discrepancy Reports, 31 of which dealt with drawing and drafting control problems. EA had not established this as a trend as required by paragraph 5.2.2 of Procedure 2PP-1.01. QA who were on the distribution for evaluation reports did issue an Analysis of Repetitive Concerns (ARC 90-11-01) after this condition was highlighted by the inspector.

It was also noted that the procedures were weak in that they did not ensure timely review of corrective actions to findings. One report was noted which had four findings for which corrective action responses had been submitted. Although 45 days had elapsed since the responses were issued, the evaluation and acceptance of the corrective actions had not been performed. Another report with seven findings did not have evaluation and acceptance of the corrective actions, although 21 days had elapsed since the responses were issued.

In regard to these observations, the licensee identified that corrective actions would be taken to strengthen the affected procedures. A review of the effectiveness of the above actions is considered an inspector followup item (446/9043-02).

4. EXIT INTERVIEW

An exit interview was held November 16, 1990, with those personnel indicated in paragraph 1 in which the inspection findings were summarized. No information was presented to the inspector that was identified by the licensee as proprietary. The licensee was subsequently informed on December 6, 1990, during the exit interview for NRC Inspection Report 50-445/90-42; 50-446/90-42 that the failure to perform EA evaluations and surveillances would be identified as a deviation from commitments.