

U. S. ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION IV

RO Inspection Report Nos. 50-445/74-2 and 50-446/74-2

Applicant: Texas Utilities Generating Company Docket No. 50-445 and
1506 Commerce Street Docket No. 446
Dallas, Texas 75201

Facility: Comanche Peak Steam Electric Station License No. None

Location: Somervell County, Texas Category A

Type of Licensee: W, PWR, 1161 MW(e)

Type of Inspection: Special, Announced, QA Inspection

Dates of Inspection: June 27-28, 1974

Dates of Previous Inspection: March 13-14, 1974

Reactor Inspectors: W. A. Crossman 7/11/74
W. A. Crossman, Senior Reactor Inspector Date
R. C. Stewart 7/11/74
R. C. Stewart, Reactor Inspector Date
R. F. Warnick 7/11/74
R. F. Warnick, Reactor Inspector Date
W. G. Hubacek 7/11/74
W. G. Hubacek, Reactor Inspector Date

Reviewed By: G. L. Madsen 7/11/74
G. L. Madsen, Chief, Reactor Construction and Date
Operations Branch, RO:IV

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RO Inspection Report No. 50-445/74-2 and 50-446/74-2

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SUMMARY OF FINDINGS

I. Enforcement Action

None

II. Licensee Action on Previously Identified Enforcement Matters

The CPSES Quality Assurance Plan has been revised and issued. The previous concerns have been resolved. (Details, paragraph C)

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

None outstanding.

V. Design Changes

None

VI. Unusual Occurrences

None

VII. Other Significant Findings

A. The A/E's QA policy and procedures are not adequate for the status of the project. (Details, paragraph D)

B. The Plant Constructor's QA Manual is currently being revised to incorporate applicable portions of 10 CFR 50, Appendix B requirements. (Details, paragraph F)

VIII. Management Interview

On June 28, 1974, at the conclusion of the inspection, a management meeting was held to discuss the results of the inspection. The following individuals were in attendance:

Texas Utilities Services, Inc. (TUSI)

R. W. Caudle, Project Manager, Nuclear Plants
R. H. Hickman, Project Engineer, CPSES
A. Vega, Quality Assurance Engineer

Atomic Energy Commission (AEC)

W. A. Crossman, Senior Reactor Inspector
W. G. Hubacek, Reactor Inspector
R. C. Stewart, Reactor Inspector
R. F. Warnick, Reactor Inspector

The inspectors described the purpose of the inspection and then discussed the following findings:

- A. Actions to correct previously identified violations were examined and implementation was verified. This item is closed.
(Details, paragraph C)
- B. The Gibbs & Hill (G&H) QA documents are not adequate for the status of the project. The inspectors cited the following reasons:
 1. The PSAR and the "G&H Project Guide" are not consistent in the definition of the approved QA policy and procedures.
 2. The G&H QA policy and procedure documents do not commit G&H to the ANSI Standards contained in the "AEC Guidance".
 3. The requirements of the ANSI Standards have not been addressed in the G&H QA procedures.

TUSI representatives indicated they would obtain clarification of which G&H QA policy and procedure documents are applicable. They also indicated that G&H has committed themselves to the ANSI Standards specified in the "AEC Guidance" and that TUSI expects G&H to incorporate implementing procedures in G&H QA policy and procedures manuals. (Details, paragraph D)

- C. The Brown & Root, Inc. (B&R) QA/QC Manual for Nuclear Projects, Construction Phase, Volume II, was found to be unacceptable to TUSI in that the Manual was deficient in meeting applicable portions of 10 CFR 50, Appendix B. TUSI representatives stated that the manual is currently being revised.
(Details, paragraph F)

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D. The inspector observed that the B&R Document, "Procedure For Procurement, Repair and Disposal of Small Tools and Construction Equipment", dated August 8, 1979, does not identify QA requirements for this category of items or equipment to be used on safety related systems or components. (Details, paragraph F)

E. The inspectors briefly reviewed the Project Schedule with the TUSI representatives and emphasized the need for timely development and implementation of the contractor's QA plans and procedures relative to the pending Limited Work Authorization.

F. Warnick stated that effective this inspection, he would no longer be the principal inspector for Comanche Peak, but that W. A. Crossman will be the principal contact in RO:IV.

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DETAILS

A. Persons Contacted

Texas Utilities Services, Inc. (TUSI)

R. W. Caudle, Project Manager, Nuclear Plants
R. H. Hickman, Project Engineer, CPSES
A. Vega, Quality Assurance Engineer

Brown & Root, Inc. (B&R)

T. Gardner, QA Engineer

B. Scope of Inspection

This special, announced inspection was a followup examination and review of the applicant's QA Program in order to verify, through objective evidence, whether the applicant and the applicant's contractors, subcontractors, and vendors have:

1. Implemented the Comanche Peak Steam Electric Station (CPSES) Quality Assurance Plan consistent with the project status.
2. Established a means to evaluate and document the effectiveness of the program.
3. And performed the necessary planning and scheduling to assure timely development and implementation of the QA Program, including engineering, procurement, vendor and construction surveillance.

In addition, the CPSES QA Plan was examined and reviewed to determine if the areas of RO concern, identified during the previous inspection 1/, were resolved.

C. Previously Identified Violations

All of the previously unresolved deficiencies identified during the inspections conducted December 3-6, 1973 and March 13-14, 1974 have been resolved. For each of the unresolved previously identified violations of Appendix B, the current findings are described below. The numbers correspond to those used in the letter to Perry G. Brittain from E. Morris Howard, dated January 7, 1974, advising TUGCO of the violations.

1/ RO Inspection Report Nos. 50-445/74-01, Details, paragraph C, and 50-446/74-01, Details, paragraph C.

Item 1.c.

Section 2, "Project Engineering" of the CPSES QA Plan was revised to make the requirements of ANSI Standards, Appendix B to 10 CFR 50, and TUSI QA requirements applicable to all safety related activities. This item is closed.

Item 1.h.

Paragraph 2.1.5.7. has been added to Procedure 2.1. It states, "QA documents, including changes, such as the QA Program and QA Plan will be distributed to and used at work locations and controlled according to Section 1.3. of this Manual". This item is closed.

Item 1.i.

Step 1 of paragraph 2.4.5.2. has been revised to state that "Vendor qualifications for the bidders list will be judged on the basis of the criteria listed in Section 2.4.5.6. of this procedure." This item is closed.

Items 2.c., d., e., and f.

All procedures except Section 3 have been implemented. Section 3 pertains to project construction surveillance and is not needed for the present status of the project. Documentation pertaining to the distribution and implementation of Revision 1 of the QA Program and QA Plan was reviewed. No deficiencies were noted. These items are closed.

Item 2.g.

The first paragraph of procedure 1.5. has been revised to include duties, responsibilities, and reporting functions for all personnel involved in quality related activities. This paragraph references the minimum job qualification requirements for all project engineering and QA personnel.

Procedure 1.8. has been revised and now specifies the minimum training requirements for QA and project personnel. The inspectors reviewed the training folders of two QA engineers. No deficiencies in the training program or documentation were noted.

Paragraph 2.1.5.8., "File Access Control" has been added to procedure 2.1. It specifies the procedure to be followed to remove documents from the file and to return removed documents to the file.

Paragraph 2.10.5. of procedure 2.10, "Record Retention" has been revised to specify the procedure for removing documents from storage and for returning removed documents to storage.

Procedure 1.0. and 2.4. have been revised to clarify TUGCO and TUSI involvement in the procurement process.

The QA plan was reviewed and frequencies were specified to replace the general term "periodically". For example: the manual will be reviewed "annually".

This item is closed.

Items 3.a. and b.

Design Review Committee minutes indicated that monthly meetings were held in February, March, April, and May. The June Committee meeting was cancelled because of absence of personnel.

Quality Surveillance Committee minutes indicated that meetings were held in January, March, and April, thus complying with the requirement that the Committee meet at least quarterly during the design and construction phases of the CPSES project.

The QA/QC programs of the architect-engineer, the NSS supplier and the safe shutdown impoundment dam designer-constructor have been reviewed by the TUSI QA staff. QA staff work was reviewed by the Quality Surveillance Committee.

These items are closed.

D. A/E's QA Program and Procedures

The three members of TUSI's QA staff and one QA consultant conducted an extensive audit on January 15-17, 1974, of their A/E's QA program and procedures. They examined G&H's Quality Assurance Manual, "Project Procedures Manual", and PSAR Chapter 17.1.2. and the implementation of these manuals, and compared them against Criteria I, II, III, IV, V, VI, VII, XVI, and XVIII of Appendix B to 10 CFR 50, and the ANSI Standards specified in AEC's "Guidance on Quality Assurance Requirements During Design and Procurement Phase of Nuclear Power Plants", (AEC Guidance).

The TUSI audit identified deficiencies in G&H's QA manuals (34 deficiencies) and their implementation (18 deficiencies). TUSI received G&H's responses to the identified deficiencies and found 18 of them inadequate.

The inspectors examined the TUSI audit results and then made a cursory review of the following CSH QA documents:

1. "Quality Assurance Manual for Nuclear Power Plants", General Revision 2, dated December 1973.
2. "Project Procedures Manual", dated March 1972 including General Revision dated December 1973.
3. "G&H Project Guide Job No. 2323".
4. PSAR, Chapter 17.1.2.

The inspectors noted the following general deficiencies during their review of the manuals:

1. The definition of G&H's QA policy and procedures is not clear. PSAR Chapter 17.1.2. indicates the "Project Procedures Manual" and PSAR, Chapter 17.1.2. constitute the approved QA policy and procedures. The "G&H Project Guide" indicates the "Project Procedures Manual", Quality Assurance Manual for Nuclear Power Plants", PSAR Chapter 17.1.2., and an internal memo dated April 25, 1973, all govern the conduct of QA services provided by G&H.
2. The G&H policy and procedure documents mentioned above do not commit G&H to the requirements contained in AEC guidance.
3. The requirements of the ANSI Standards contained in the AEC guidance are not included or addressed in the G&H procedures.

Based on the inspectors' review of the QA documents and TUSI's audit, it appears that the G&H QA program documents are not adequate for the status of the project.

E. TUSI QA Organization

QA activities of the TUSI organization were reviewed to determine that measures of making management aware of the status and accuracy of the program were effective and being implemented.

a. Quarterly Review of the QA Program

The activity of the quarterly review of the QA program is a mechanism whereby the QA Manager reviews the performance of the QA program and plan with the President of TUSI on a quarterly basis.

Quarterly reports were examined by the inspector and observed to fulfill Section 2 of N45.2 in this area of management. It was pointed out, however, that the activity does not appear to be properly addressed in the plan. The responsibility for this function is defined for the QA Manager, but is not described as to its function.

b. Quality Surveillance Committee (QSC)

The QSC has been reorganized and its charter redefined so that it is a more effective tool by which TUSI management may review the status and adequacy of the QA program.

Quarterly meeting minutes examined reflected the member's evaluation of the program for which he has implementing responsibility.

c. Design Review Committee (DRC)

Examination of the DRC's review of the component cooling water system (CCW) specification represented implementation in this area commensurate with design specification progress.

F. B&R QA Program and Procedures

1. B&R QA Program Manual

A followon review of the B&R Quality Assurance Program, as described in the CPSES PSAR, was conducted. During the review of the B&R "QA/QC Manual for Nuclear Projects, Construction Phase, Volume II", it was observed by the inspector that as a result of a QA audit review conducted on June 6, 1974 by members of the TUSI QA organization, the B&R QA/QC Manual was found to be deficient in that the manual does not contain sufficient detailed requirements that reflect the applicable criteria requirements of 10 CFR 50, Appendix B. In discussing the matter with the TUSI representatives, the inspector was informed that the B&R QA/QC Manual is currently being revised to reflect the ANSI 45.2 Standards as committed to by TUSI in Section 17 of the CPSES PSAR. The inspector informed the TUSI representatives that the revised B&R QA/QC Manual will be reviewed during a subsequent RO inspection.

2. B&R Procedures

The B&R Monthly Activities Report CP-1001, dated June 18, 1974 indicates activities during the month of May included the development of the format and instructions for construction procedures. In addition, nine B&R QA procedures were submitted to TUSI for review and comment. Based on the inspector's review of the draft procedures and TUSI review comments, it appears that the implementation of the Quality Assurance Program, with regard to procedural development, is consistent with the project schedule.

During the procedure review, the inspector observed that the B&R Procedure entitled, "Procedure for Procurement, Repair, and Disposal of Small Tools of Construction Equipment", dated August 8, 1973, does not prescribe the QA control requirements, for items or equipment purchased within the described category, that may be installed or used on a safety related system.

In discussing the matter with the TUSI representatives, the inspector was informed that the procedure is intended as a general procedure for field purchases of small items within a limited cost value; however, the matter will be reviewed in order to ensure that applicable QA controls are established within the described procurement category.