

COMANCHE PEAK RESPONSE TEAM

RESULTS REPORT

SAP: VII.a.5

Title: Periodic Review of QA Program

REVISION 1

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7/31/86
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Periodic Review of QA Program

1.0 DESCRIPTION OF ISSUE

The Comanche Peak SSER 11, Appendix P, Section 4.7, pages P-31 through P-34, describes the NRC concerns in the areas of audit and reporting. The concerns pertaining to the Periodic Review of QA program have been extracted and are presented here:

"The TRT found that TUEC management had failed to periodically review the status and adequacy of their QA program. This was confirmed by Region IV (IR 50-445/84-32). TUEC representatives stated that there had been no regular assessments or reviews of the adequacy of the total QA program by upper management, as required in Criterion II of 10CFR50, Appendix B, and as committed in the FSAR.

With respect to follow-up corrective action for previous findings cited against the audit program by NRC and TUEC consultant audit/inspection teams, the TRT found TUEC's corrective action follow-up to be not fully effective. The Fred Lobbin Report (a TUEC consultant), dated February, 1982, identified four major findings: (1) level of experience within the TUGCO QA organization is low; i.e., commercial nuclear plant design and construction QA experience; (2) staffing for the audit and surveillance functions is inadequate; (3) the number and scope of design and construction audits conducted by TUGCO QA to date has been limited; and (4) QA management has not defined clearly the objectives for the surveillance program resulting in a program which, in the author's opinion "is presently ineffective." To date, findings (2), (3) and (4) have not been adequately addressed by TUEC. (Region IV Report No. 50-445/84-32.)

Based on its findings and observations, the TRT concludes that the QA audit and reporting program has had and continues to exhibit deficiencies. Over a significant period of time, recurring deficiencies include:....failure by management to review the QA program for effectiveness; procedural and implementation inadequacies;....and insufficient management direction and understanding. In summation, the QA/QC group finds the past audit and reporting system less than adequate, and the audit and reporting program at the time of the TRT review was questionable."

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2.0 ACTION IDENTIFIED

Evaluate the TRT findings and consider the implications of these findings on construction quality. "...examination of the potential safety implications should include, but not be limited to the areas or activities selected by the TRT."

"Address the root cause of each finding and its generic implications..."

"Address the collective significance of these deficiencies..."

"Propose an action plan...that will ensure that such problems do not occur in the future."

3.0 BACKGROUND

The intent of this Issue-Specific Action Plan (ISAP) was to ensure that, for any remaining construction or modification activities for Unit 1, the remaining construction phase for Unit 2 and for operations, a Periodic Review of QA Program has been developed which will provide corporate management with data concerning the adequacy and effectiveness of the overall QA Program and which will provide for the evaluation, by management, of adverse findings and subsequent corrective action follow up.

This ISAP was not intended to perform evaluations which would result in conclusions regarding the installed hardware. The quality of hardware and any potential safety implications will be assessed from other hardware and programmatic ISAPs and the self-initiated Construction Reinspection/Documentation Review Plan, ISAP VII.c.

Any past effects of an inadequate management review of the QA Program would be addressed through the implementation of other CPRT ISAPs. One example is ISAP VII.a.4, "Audit Program and Auditor Qualification," which identified inadequacies in the TUGCO QA Audit Program which continued uncorrected for long periods of time. In addition, the topic of overall assessment of the QA Program will be addressed during the collective evaluation of QA/QC Program adequacy. Therefore, the first three items in Section 2.0 of this report, which pertain to consideration of the implications of the TRT findings on construction quality, their root cause and generic implications, and their collective significance, will be addressed elsewhere.

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3.0 BACKGROUND (Cont'd)

In addition to the TRT issue, the NRC issued a notice of violation (445/8432-02; 446/8411-02):

"Contrary to the requirements, the applicant did not establish quality assurance procedures to regularly review the status and adequacy of the construction quality assurance program; nor did the applicant appear to have reviewed the status and adequacy of the construction quality assurance program."

4.0 CPRT ACTION PLAN

4.1 Scope and Methodology

4.1.1 The purpose of this action plan was to assess the adequacy of the current CPSES Periodic Review of QA Program against criteria to be developed as part of this plan. The Review Team was to consult with INPO to define criteria for an adequate and effective Periodic Review of QA Program.

The Review Team then evaluated the current CPSES Periodic Review of QA Program against the criteria developed.

4.1.2 The specific methodology is described below.

4.1.2.1 The Review Team obtained information from INPO governing Periodic Review of QA Programs for both construction and operations phases.

4.1.2.2 The Review Team reviewed the current TUGCO written program and practices implementing the Periodic Review of QA Program.

4.1.2.3 Utilizing the information gathered, a set of criteria was developed to define an effective Periodic Review of QA Program for CPSES which addresses, among others, the following:

- Scheduling and performance of reviews at least annually,

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4.0 CPRT ACTION PLAN (Cont'd)

- Reports directed to, and responses received from, a sufficiently high level of management to ensure effective corrective action,
- Ongoing contact by management with program status,
- Identification of corrective action,
- Tracking and follow-up.

4.1.2.4 The current TUGCO program was evaluated against the criteria developed to assure that an adequate Periodic Review of QA Program is in effect for any remaining construction or modification activities for Unit 1, the remaining construction phase of Unit 2 and for the operations phase.

4.1.2.5 Copies of the Results Report for this ISAP will be provided to TUGCO for their consideration in responding to the NRC Notice of Violation (445/8432-02; 446/8411-02).

4.2 Participants Roles and Responsibilities

4.2.1 TUGCC

4.2.1.1 Scope

TUGCO assisted in identifying and locating applicable information and documentation to support the Review Team activities, and provided contact with INPO.

4.2.1.2 Personnel

Mr. John Streeter, Director, Quality Assurance, provided coordination between the Review Team and TUGCO.

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4.0 CPRT ACTION PLAN (Cont'd)

4.2.2 ERC

4.2.2.1 Scope

ERC communicated with outside organizations and TUGCO Management, reviewed data, developed criteria and evaluated the current program.

4.2.2.2 Personnel

Mr. J. Hansel

Review Team
Leader

Mr. J. Gelzer

Issue Coordinator

Quality Engineers as required.

4.3 Qualifications of Personnel

Participants were qualified to the specific requirements of the CPRT Program Plan.

4.4 Standards/Acceptance Criteria

Periodic Review of QA activities shall be in compliance with 10CFR50, Appendix B, Criterion II and ANSI N45.2-1971, Section 2. Specifically, such activities are acceptable if a description is provided of how management (above or outside the QA organization) regularly assesses the scope, status, adequacy, and compliance of the QA Program to 10CFR50, Appendix B. These measures should include:

4.4.1 Frequent contact with program status through reports, meetings, and/or audits.

4.4.2 Performance of an annual review preplanned and documented. Corrective action is identified and tracked.

4.5 Decision Criteria

This item will be considered complete when the following have been accomplished:

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4.0 CPRT ACTION PLAN (Cont'd)

- 4.5.1 A set of criteria for an effective Periodic Review of QA Program has been developed.
- 4.5.2 The TUGCO Program has been evaluated against the criteria.
- 4.5.3 The results of the evaluation have been transmitted to TUGCO for consideration in their program.

5.0 IMPLEMENTATION OF ACTION PLAN AND DISCUSSION OF RESULTS

The following sections address the development of criteria for a Periodic Review of QA Program and the evaluation of the current TUGCO program.

5.1 Development of Criteria

The TUGCO licensing commitment for the Periodic Review of the QA Program is contained in 10CFR50, Appendix B, Criterion II, which states in part, ". . . The applicant shall regularly review the status and adequacy of the quality assurance program. . . ." In addition, ANSI N45.2-1971, to which TUGCO is committed, states in Section 2, ". . . The program shall provide for the regular review, by management of organizations participating in the program, of the status and adequacy of that part of the quality assurance program for which they have designated responsibility."

In addition to these regulatory commitments made by TUGCO, the NRC Standard Review Plan, NUREG-0800, contains acceptance criteria for the review of QA programs. In Section 17.1, the criteria pertaining to Periodic Review of QA Program is as follows:

"Activities related to quality assurance program (17.1.2) are acceptable if: . . .

- 2.C.1 A description is provided of how management (above or outside the QA organization) regularly assesses the scope, status adequacy, and compliance of the QA program to 10CFR Part 50, Appendix B. These measures should include:

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5.0 IMPLEMENTATION OF ACTION PLAN AND DISCUSSION OF RESULTS (Cont'd)

- a. Frequent contact with program status through reports, meetings, and/or audits.
- b. Performance of an annual assessment preplanned and documented. Corrective action is identified and tracked."

INPO was considered as an additional source for input to the development of criteria. INPO identified three criteria documents to the RTL which they felt might be applicable, and copies were obtained from TUGCO.

After review and consideration of the information available, and because the applicable INPO information was similar, it was decided that the criteria to be developed in this ISAP should closely reflect and expand upon the criteria contained in the Standard Review Plan. As a result, the following set of criteria for periodic review of QA program has been developed:

- 5.1.1 The program shall require the regular assessment of the scope, status, adequacy, and compliance of the QA program to 10CFR50, Appendix B.
- 5.1.2 The program shall define the management positions responsible for the Periodic Review of QA Program. These positions shall be above or outside the QA organization and the line managers directly responsible for activities affecting quality.
- 5.1.3 The program shall describe the methodology for performing the QA program assessments and their frequency. As a minimum, the methods described shall include the following:
 - Frequent contact, by personnel responsible for the reviews, with program status through reports, meetings, and/or audits.
 - Performance of preplanned and documented assessments to be performed at least annually.

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5.0 IMPLEMENTATION OF ACTION PLAN AND DISCUSSION OF RESULTS (Cont'd)

5.1.4 The program shall describe the methodology for reporting, tracking and follow-up of the results of the Periodic Review of QA Program.

5.2 Review of Current Program

The written program for periodic review of the QA program is contained in the TUGCO Nuclear Engineering and Operations (NEO) Policies and Procedures Manual and consists of the following documents that collectively define and implement the program:

- A memorandum dated August 30, 1985, from the President of TUGCO that transmitted policy statements that identified TUGCO corporate goals and objectives to the Executive Vice President, NEO with a request to initiate NEO policies and procedures to ensure implementation of the policy statements. Policy Statement Number 5 states in part, "Overall effectiveness of the quality assurance program shall be regularly reported to Corporate Management..."
- NEO Policy Statement Number 2, "Quality Assurance Program," Revision 0, dated June 23, 1986.
- Procedure NEO 2.20, "Senior Management QA Overview Program," Revision 1, dated June 23, 1986.
- Procedure NEO 2.08, "Joint Utility Management Audit Program," Revision 0, dated June 23, 1986.

A review of these documents was performed utilizing the criteria in Sections 5.1.1 through 5.1.4 above. Based on this review, a review of the minutes of previous Senior Management QA Overview Committee (Committee) meetings and observation of two Committee meetings, the following has been determined:

5.2.1 The program provides for a regular assessment of the status and adequacy of the QA Program.

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5.0 IMPLEMENTATION OF ACTION PLAN AND DISCUSSION OF RESULTS (Cont'd)

- 5.2.2 The program defines the management positions responsible for the periodic review of QA Program as the Executive Vice President, NEO and the Vice Presidents reporting to him. These positions are above and outside the QA organization and the line managers directly responsible for activities affecting quality.
- 5.2.3 The program describes the methodology for performing the program assessments and their frequency.
- Frequent contact with program status is accomplished by personnel responsible for the reviews through reports and meetings.
 - Provision has been made for preplanned and scheduled annual assessments to be performed by senior management and also for an outside, independent audit of the TUGCO QA Audit Program.
- 5.2.4 The program describes the methodology for reporting, tracking and follow-up of the results of the periodic review of QA Program.
- 5.2.5 Revision 1 of Procedure NEO 2.20 states that the committee shall meet at least quarterly. Since the inception of the committee in September 1985, through July 1986, there have been five committee meetings. This is in excess of the minimum number established.
- 5.2.6 The Committee meetings have focused on identified problems in the QA program such as the control of non-conformances; consolidated reporting of open item status; trend analysis system; development of, and the setting of priorities for, the NEO Policies and Procedures; interface requirements; and transition to operating status.
- 5.2.7 The minutes of the first three committee meetings, prepared prior to procedure revision, lack details for some items addressed, responsibilities assigned and actions taken. This was due, at least in part, to the fact that the Executive Vice President, NEO, and all committee members were present at, and participated in, the meetings and were therefore cognizant of the actions which transpired.

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5.0 IMPLEMENTATION OF ACTION PLAN AND DISCUSSION OF RESULTS (Cont'd)

Revision 1 of Procedure NEO 2.20 contains specific requirements for the content of committee meeting minutes, including a method to track all items requiring committee action. The minutes of subsequent meetings (May 8, 1986 and July 8, 1986) are much improved in this respect and provide additional detail and a more descriptive record of the committee activities.

5.3 Evaluation of Findings

Based on the evaluation described in Section 5.2 above, it is concluded that the TUGCO written program for the Periodic Review of QA Program is acceptable. The RTL has no further recommendations.

6.0 CONCLUSIONS

With the issue of the TUGCO Corporate Nuclear Policy in August 1985, and the subsequent development of the NEO Policies and Procedures Manual Table of Contents, and the subsequent development of individual policies and procedures, TUGCO management has taken positive steps to define an effective system to provide the necessary controls and guidance to ensure the adequate and effective implementation and review of the QA program.

It is further concluded that, based on discussions with the Executive Vice President, NEO, his vice presidents and review of Committee activities, current management at this level understands the importance of an effective QA program and also the need for regular review of the program to measure its adequacy and effectiveness.

Recent activities at this level have consisted of assembling the upper management team, identifying and implementing the data gathering and reporting methodology to enhance management review capabilities, and identifying priorities for development of the individual NEO Policies and Procedures.

Finally, it is concluded that continued implementation of the Periodic Review of the QA Program as recently demonstrated, and in accordance with the program as presently defined, will result in an adequate and effective Periodic Review of the QA Program.

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(Cont'd)

7.0 ONGOING ACTIVITIES

The program for the periodic review of the QA Program will be applicable to any remaining construction or modification activities for Unit 1, the remaining construction phase on Unit 2 and for the operating phase of the plant.

8.0 ACTION TO PRECLUDE OCCURRENCE IN THE FUTURE

TUGCO Management implementation of the program as outlined in the NEO Policies and Procedures Manual will ensure a continuing acceptable program for the Periodic Review of the QA Program.