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Filed: March 28, 1988

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

before the

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of TEXAS UTILITIES GENERATING COMPANY et al. (Comanche Peak Steam Electric Station, Units 1 and 2)	Docket Nos. 50-445-OL 50-446-OL (Application for an Operating License)

ANSWERS TO BOARD'S 14 QUESTIONS
(Memo; Proposed Memo of April 14, 1986)
Regarding Action Plan Results Report VII.b.3

In accordance with the Board's Memorandum; Proposed Memorandum and Order of April 14, 1986, the Applicants submit the answers of the Comanche Peak Response Team ("CPRT") to the 14 questions posed by the Board, with respect to the Results Report published by the CPRT in respect of CPRT Action Plan VII.b.3, "Pipe Support Inspections."

Opening Request:

Produce copies of any CPRT-generated checklists that were used during the conduct of the action plan.

Response:

Three checklists in the form of Quality Instructions were developed and utilized during implementation of ISAP VII.b.3. These are identified in Section 4.4 of the Results Report.

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Attached are copies of the checklists that summarize the requirements of the quality instructions.

These checklists were limited in purpose in that they were developed to aid in substantiation of TRT concerns.

The checklists were not part of a sampling effort.

Question No. 1:

1. Describe the problem areas addressed in the report. Prior to undertaking to address those areas through sampling, what did Applicants do to define the problem areas further? How did it believe the problems arose? What did it discover about the QA/QC documentation for those areas? How extensive did it believe the problems were?

Response:

The problem area addressed by the ISAP VII.b.3 Results Report is evaluation of the TRT findings on pipe supports. The initial phase of the Action Plan sought to determine the extent and significance of the these findings. Third-party inspections were performed. (Sampling was not utilized in this Action Plan.) These investigations substantiated a number of TRT findings. Several of these led to recommendations for corrective action and implementation of such by the Project.

A second issue in the TRT findings was consideration of the implications of findings on the quality of construction of pipe supports but not necessarily limited to the areas or activities selected by the TRT. In this respect, the Results Report for ISAP VII.b.3 is supplemented by the reinspections and findings in ISAP VII.c, Appendices 25, 26, and 27, which with this Results Report give a clear picture of the adequacy of construction and generic implications of the findings.

The Project considered the pipe support problems extensive enough to lead to the decision to implement the corrective actions, as well as a complete design review.

Question No. 2:

2. Provide any procedures or other internal documents that are necessary to understand how the checklists should be interpreted or applied.

Response:

Following is a list of quality instructions that were prepared to provide the necessary interpretations and understandings for each checklist:

QI-037 Reinspection of Pipe Supports TRT Issues - Pipe Supports in Rm 77N, Safeguards Bldg., Unit 1/I-S-PS7N

QI-058 Reinspection of Pipe Supports TRT Issues - 42 Pipe Supports/I-S-PS42

QI-061 Documentation Review of TRT Issues - 42 Pipe Supports/R-S-PS42

Question No. 3:

3. Explain any deviation of checklists from the inspection report documents initially used in inspecting the same attributes.

Response:

This Action Plan examined a very specific scope of attributes related to concerns identified by the TRT. Consequently, the checklists were not required to conform to explicit project documentation but rather to substantiate identified concerns.

Question No. 4:

4. Explain the extent to which the checklists contain fewer attributes than are required for conformance to codes to which Applicants are committed to conform.

Response:

Attributes were limited to those inspected by the TRT. Code requirements were included when the attribute reflected a specific Code requirement (e.g., locking devices for threaded fasteners).

However, in assessing the overall quality of construction, the Results Report for ISAP VII.b.3 is supplemented by ISAP VII.c, which inspected a random sample of more than 60 pipe supports for a full range of attributes and addressed applicable code requirements.

Question No. 5:

5. (Answer Question 5 only if the answer to Question 4 is that the checklists do contain fewer attributes.) Explain the engineering basis, if any, for believing that the safety margin for components (and the plant) has not been degraded by using checklists that contain fewer attributes than are required for conformance to codes.

Response:

Not applicable; see response to question 4 and Section 3 of the Results Report.

Question No. 6:

6. Set forth any changes in checklists while they were in use, including the dates of the changes.

Response:

Changes to checklists (Quality Instructions) while they were in use were accomplished by revision and reissuance of the

Quality Instructions. In the revised instructions, changes were indicated by change bars on the affected page(s) of the document. Additionally, cover memoranda for revisions indicated the type of change, why it was made, and its effect on previous re-inspections. The date of each change was recorded on the applicable cover sheet, which accompanied the revision.

This documentation is located in the files supporting the ISAP VII.b.3 Results Report.

Question No. 7:

7. Set forth the duration of training in the use of checklists and a summary of the content of that training, including field training or other practical training. If the training has changed or retraining occurred, explain the reason for the changes or retraining and set forth changes in duration or content.

Response:

Before checklists were issued, they and their Quality Instructions were reviewed in detail with the inspection personnel assigned to the VII.b.3 inspection program. Before inspections began, each attribute was reviewed to determine how clear and easily understood it and the accept/reject criteria were. During use, checklists were sometimes revised for the purpose of further clarifying the particular inspection activity. Appropriate training was given for each change. Thus, training was an ongoing activity while inspection was in progress.

Question No. 8:

8. Provide any information in Applicants' possession concerning the accuracy of use of the checklists (or the inter-observer reliability in using the checklists). Were there

any time periods in which checklists were used with questionable training or QA/QC supervision? If applicable, are problems of inter-observer reliability addressed statistically?

Response:

The CPRT QOC group instituted an overview program of inspection that surveyed the inspectors. A portion of each inspector's work was reinspected by another inspector, similarly trained and instructed, using the same checklist, training, and instruction. This resulted in reliability data for each inspector that was reviewed weekly by the QA/QC Review Team Leader. Any significant change in the inspector's performance was noted, and corrective action was taken in a timely manner.

Question No. 9:

9. Summarize all audits or supervisory reviews (including reviews by employees or consultants) of training or of use of the checklists. Provide the factual basis for believing that the audit and review activity was adequate and that each concern of the audit and review teams has been resolved in a way that is consistent with the validity of conclusions.

Response:

The audits and supervisory reviews performed were conducted by the ERC QA Department. The results are part of permanent file documentation for the CPRT and not part of Results Report files. Audit concerns were minor in nature and were resolved satisfactorily. The ERC QA files contain documentation of resolutions.

Question No. 10:

10. Report any instances in which draft reports were modified in an important substantive way as the result of management action. Be sure to explain any change that was objected to

(including by an employee, supervisor, or consultant) in writing or in a meeting in which at least one supervisory or management official or NRC employee was present. Explain what the earlier drafts said and why they were modified. Explain how dissenting views were resolved.

Response:

No substantive modifications were made to the Results Report as a result of management action.

Question No. 11:

11. Set forth any unexpected difficulties that were encountered in completing the work of each task force and that would be helpful to the Board in understanding the process by which conclusions were reached. How were each of these unexpected difficulties resolved?

Response:

No unexpected difficulties were encountered during implementation of the Action Plan.

Question No. 12:

12. Explain any ambiguities or open items in the Results Report.

Response:

No ambiguities or open items are left in the Results Report.

Question No. 13:

13. Explain the extent to which there are actual or apparent conflicts of interest, including whether a worker or supervisor was reviewing or evaluating his own work or supervising any aspect of the review or evaluation of his own work or the work of those he previously supervised.

Response:

Activities not performed entirely by third-party personnel were closely monitored by third-party personnel to preclude potential bias resulting from possible conflicts of interest. No conflicts of interest existed.

Question No. 14:

14. Examine the report to see that it adequately discloses the thinking and analysis used. If the language is ambiguous or the discussion gives rise to obvious questions, resolve the ambiguities and anticipate and resolve the questions.

Response:

The Issue Coordinators and others who aided in preparation and approval of the Results Report have reviewed and checked the report for clarity and believe no ambiguities exist.

Respectfully submitted,

J. P. Tableriqu
Action Plan VII.b.3
Issue Coordinator

J. L. Hansel
Review Team Leader

The CPRT Senior Review Team has reviewed the foregoing responses and concurs in them.

INSPECTION CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST		
POPULATION DESC PIPE SUPPORTS	VERIFICATION PKG NO. I-S-PS7N	PAGE 1 OF 1
QUALITY INSTRUCTION QI-037	[X] REINSPECTION [ ] DOCUMENTATION REVIEW	[X] UNIT 1 [ ] UNIT 2 [ ] COMMON
EQUIPMENT MARK/TAG NO.		

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1 Identification				
2 Pipe Clamp Halves Parallel				
3 Spherical Bearing Gap				
4 Snubber Adapter Plate Bolt Thread Engagement Length				
5 Pin & Bolt/Stud Locking Device				

PREPARED BY: DISCIPLINE ENGR. DATE	APPROVED BY: LEAD DISCIPLINE ENGR. DATE
INSPECTED BY: INSPECTOR DATE	APPROVED BY: LEAD INSPECTOR DATE

CPP-007.1A, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-058
Rev. 4

POPULATION DESC PS42	VERIFICATION PKG NO.	PAGE 1 OF 2
QUALITY INSTRUCTION QI-058	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☐ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Support				
5.1) Identification				
5.1.1 Mark Number				
5.1.2 Installed Components				
5.2) Configuration				
5.2.1 Components				
5.2.2 Materials	N/A	N/A		
5.2.3 Orientation				
5.2.4 Installation				
5.2.5 Offset				
5.2.6 Clearances				
5.3) Threaded Fasteners				
5.3.1 Locking Device				
5.3.2 Tightness				
5.3.3 Safety Wire				
5.3.4 Record Markings	N/A	N/A		
5.4) Welds				
5.4.1 Location				
5.4.2 Size				
5.4.3 Reinforcement				
5.4.4 Undercut				
5.4.5 Cracks/Fusion				
5.4.6 Surface				
5.4.7 Welder ID	N/A	N/A		
5.4.8 Offset				

PREPARED BY:		APPROVED BY:	
DISCIPLINE ENGR.	DATE	LEAD DISCIPLINE ENGR.	DATE
INSPECTED BY:		APPROVED BY:	
INSPECTOR	DATE	LEAD INSPECTOR	DATE

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-058
Rev. 4

POPULATION DESC PS42	VERIFICATION PKG NO.			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.5) Pipe Clamps 5.5.1 Pipe Clamp Halves Parallel				
5.5.2 Record Dimension	N/A	N/A		
5.6) Load Pin Locking Devices 5.6.1 Cotter Pins				
5.7) Spherical Bearing 5.7.1 Spacers				
5.7.2 Record Spacers	N/A	N/A		
5.7.3 Cap				
5.7.4 Contamination				
5.8) Snubber Adapter Plate Bolt Thread Engagement 5.8.1 Engagement Length				
5.8.2 Record Dimensions	N/A	N/A		
5.9) Threaded Rod Thread Engagement 5.9.1 Engagement Length				
5.10) Record Snubber Cold Set	N/A	N/A		

Attachment 6.1
QI-061
Revision 0
Page 1 of 1

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

[illegible] DESC [illegible] ISSUES 42 PIPE SUPPORTS	VERIFICATION PRG NO. R-S-PS-2-_____	PAGE 1 OF 1
QUALITY INSTRUCTION QI-061	☐ REINSPECTION ☐ DOCUMENTATION REVIEW	☐ UNIT 1 ☐ UNIT 2 ☐ COMMON
EQUIPMENT MARK, TAG NO.		

ATTRIBUTE	VERIFICATION ACCEPT	VERIFICATION REJECT	VERIFICATION DATE	REMARKS
5.1 Support Package	N/A	N/A		
5.2 Drawing Revision	N/A	N/A		
5.3 Support Package Review	N/A	N/A		
5.4 Inspector Certifications				
5.5 Mat'l.Ident.Log				
5.6 Heat Numbers				
5.7 QC Signoff				
5.8 Heat Log				
5.9.1.1 Identify Items	N/A	N/A		
5.9.1.2 Welding Procedure Verification				
5.9.2 Welder Qualifications				
5.9.3.1 Hold Points				
5.9.3.2 NDE Report				

PREPARED BY: DISCIPLINE ENGR. DATE	APPROVED BY: LEAD DISCIPLINE ENGR. DATE
INSPECTED BY: INSPECTOR DATE	APPROVED BY: LEAD INSPECTOR DATE

CPP-007.1A, Revision 0

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ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	Docket Nos. 50-445-OL
	)	50-446-OL
TEXAS UTILITIES ELECTRIC COMPANY et al.	)	
	)	(Application for an
(Comanche Peak Steam Electric Station, Units 1 and 2)	)	Operating License)

CERTIFICATE OF SERVICE

I, Thomas A. Schmutz, hereby certify that the foregoing Applicants' Answers To Board's 14 Questions was served this 28th day of March 1988, by mailing copies thereof (unless otherwise indicated), first class mail, postage prepaid to:

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