

Response:

CPRT-generated checklists used to support the conclusions summarized in the DSAP VIII Results Report for conduit/supports are described as follows and included as Attachments I and II.

The Design Criteria Review Checklist (Attachment I) served as documentation to verify the conduit/supports design criteria.

The Train A/B Conduit Supports Procedure Review Checklist (Attachment II) was used to document the review of design criteria and procedures.

The Train A/B Conduit Supports Calculation Review Checklist (Attachment III) was used to document the review of generic calculations and special analytical studies. It was also intended to be used for the implementation reviews that previously were prescribed by Appendix H of the Program Plan. However, Appendix H of the Program Plan was terminated by Revision 4, and follow-up responsibility in this area is now within the scope of the TU Electric QA Technical Audit Program.

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 Results Report for the portion of the Discipline-specific Action Plan (DSAP) on conduit/supports summarizes the results of third-party review of Ebasco resolutions to a number of issues identified by sources external to the Comanche Peak

Response Team (CPRT), including the Independent Assessment Program (Cygna), ASLB, CASE, and NRC review teams (TRT, SIT, and CAT).

To resolve the external source issues in conduit/supports design and assure that all conduit and conduit supports are appropriately designed and qualified, TU Electric committed to perform a comprehensive design validation program. Consequently, this Design Adequacy Program (DAP) Action Plan does not include sampling to identify problem areas that were a part of the previous design for conduit/supports. In order to define the potential conduit/supports issues fully, the DSAP VIII Action Plan required that external issues be identified and documented in the DAP tracking system for the purpose of monitoring their resolution and closure. The Senior Review Team (SRT) determined that the review was extensive enough to conclude that all substantive conduit/support-related external source issues had been identified.

As a matter of clarification, the corrective action program for conduit/supports initially attempted to utilize a sampling program to verify that the installation of conduit/supports in Unit 1 was in compliance with original specified requirements. Any changes to the installation specifications made during the course of the corrective action program were to be validated on a global basis for all affected hardware and retrofitted in the plant as applicable. However, due to the wide variation in support and conduit configurations, the sampling program proved

to be ineffective for this purpose, and, hence, the comprehensive design validation approach described above was utilized for Unit 1.

Root cause of external source issues was redefined by Revision 4 of the CPRT Program Plan to be outside the scope of the Results Report for conduit/supports. The extent of the problem was not quantified; however, the design validation program is extensive enough to assure that conduit/supports are in conformance with applicable commitments. The third party did not review QA/QC documentation as part of this Action Plan.

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:

The following DAP procedures were used in generating and implementing the checklists:

- DAP-1 Preparation and Review of Criteria List
- DAP-4 Preparation of Checklists
- DAP-5 Review of Calculations, Evaluations and Other Implementing Documents
- DAP-6 Review of Drawings, Specifications and Other Design Output Documents
- DAP-20 DAP Overview of Activities Performed by the CPSES Project or Other External Organizations

These are included as Attachments IV through VIII. Each DAP procedure contains descriptions of scope, responsibilities, and instructions, including documentation requirements.

Question No. 3:

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

Response:

For the purpose of answering this question, the assumption is made that "inspection report documents initially used" refers to Gibbs and Hill design review documentation. Gibbs and Hill design verification procedures and documentation were not reviewed as a part of the conduit/supports-related portions of this DSAP. The checklists generated by the CPRT resulted from a comprehensive review of CPSES licensing commitments and criteria and the external issue source documentation, as described in response to question 1.

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:

To our knowledge, the design review checklists for conduit/supports contain all attributes necessary to assess design procedure conformance to the codes and standards to which the CPSES is committed.

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:

This question is not applicable by reason of the response to question 4.

Question No. 6:

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

Response:

The Design Criteria Review Checklist was not revised during the conduct of the reviews. Each of the two conduit/supports review checklists was revised once; i.e., each was revised to the Rev. 1 level. Following is a summary of these revisions, all of which were used during the third-party review:

<u>Train A/B Checklist</u>	<u>Rev. No.</u>	<u>Date</u>
DAP-C/S-S133		
Procedure Review Checklist	0	5-27-86
	1	7-09-86
DAP-C/S-S132		
Calculation Review Checklist	0	5-30-86
	1	7-02-86

The revisions to the checklists were minor additions and refinements to the checklist attributes that were made to check for specific aspects of external source issue resolutions or details of procedure-related studies. Copies of Rev. 0 of the above checklists are included as Attachments IX and X to these

responses. As noted earlier, copies of the latest revisions (Rev. 1) of the checklists are given in Attachments I and II.

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:

Personnel assigned to the review of criteria lists and procedures were trained before and during reviews as revisions to procedures were issued. Training consisted of reading assignments and "on-the-job" training, which were intended to produce an overall understanding of the CPRT Program Plan, the portions of DSAP VIII related to conduit/supports, and the Design Adequacy Program procedures, coordinated with specific reviewer responsibilities. DAP-15, "Training and Qualifications," specifies requirements of the DAP training program. DAP files include training documentation.

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:

As stated in the response to question 7, training was conducted in a timely manner to assure proper implementation of checklists. All training was finished before the final

evaluations using the checklists were completed. Inter-observer reliability is not applicable to this Action Plan.

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:

DAP Quality Assurance conducted internal audits of DSAP VIII, including reviews to evaluate training and compliance of checklist implementation with DAP procedures. No specific concerns were identified for conduit supports. One generic concern, however, was that checklists in the process of implementation did not refer to Discrepancy/Issue Resolution Reports (DIRs) as required by the DAP procedure. As a result of this concern, all in-process checklists were reviewed and corrected before they were approved.

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:

The DSAP VIII Results Report, "Civil/Structural - Train A & B Conduit and Supports," was not modified in any important or substantive way as the direct result of management action.

Changes from early drafts to the final report reflected actual changes in the status of technical issue resolution that occurred as a result of additional work performed by the Project. No dissenting views are known.

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 of the type that would be helpful to the Board were encountered.

Question No. 12:

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

Response:

To the best of our knowledge, the Results Report contains no ambiguities. Any open items are clearly identified and explained 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:

As part of the training and qualifications requirements of the DAP, reviewer objectivity was evaluated, based on responses to Attachment D of DAP-15. The evaluations indicate no evidence of any conflicts of interest.

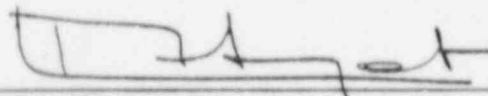
Question No. 14:

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.

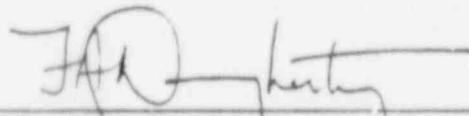
Response:

In the process of preparing responses to the foregoing questions 1 through 13, the Review Team Leader, DAP Manager, and Discipline Coordinator reread the Results Report specifically to identify any such ambiguities. None were noted.

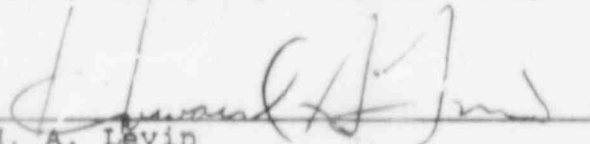
Respectfully submitted,



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

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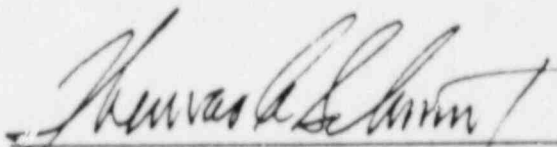
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