

EVALUATION RESEARCH CORPORATION

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COMANCHE PEAK RESPONSE TEAM

PROJECT PROCEDURE FOR ALL QA/QC ISSUE-SPECIFIC ACTION PLANS

PROCEDURE NO: CPP-016

REVISION: 2

ISSUE DATE: 01/28/86

SAFETY SIGNIFICANCE EVALUATIONS OF DEVIATION REPORTS

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QA/QC REVIEW TEAM LEADER

1.0 PURPOSE

This procedure establishes the method to perform evaluations of reported construction deviations to identify any construction deficiencies and, as required, determine the likely performance of any affected systems and the effect on public safety.

2.0 APPLICABILITY

This procedure is applicable to safety related hardware constructed and QC accepted at Comanche Peak Steam Electric Station (CPSES), Unit 1, 2, and areas common to both units that have been subjected to reinspection and/or documentation review as part of the Quality of Construction Program.

3.0 REFERENCES

- 3.1 CPP-010, "Preparation of Deviation Reports."
- 3.2 CPP-011, "Evaluations of Adverse Trend Analyses, Construction Deficiencies, and QA/QC Program Deficiencies."
- 3.3 CP-QP 16.3, "Processing CPRT Deviation Reports/Observation Notices."
- 3.4 CPP-021, "CPSES Project Corrective Action."
- 3.5 CPP-004, "Project Working Files."

4.0 GENERAL

The QA/QC Safety Significance Evaluation Group (SSEG) evaluates construction deviations normally documented on Deviation Reports (DRs) in accordance with Reference 3.1 to identify any construction deficiencies. Moreover, construction deficiencies may be evaluated to determine the likely performance of any affected systems and/or the effect on public safety. Evaluations are thoroughly reviewed and approved by individuals knowledgeable in the applicable discipline(s), then distributed to ensure any further reinspections/reviews, as required by Reference 3.2, and to ensure that the CPSES Project satisfactorily defines and implements action to correct any construction deficiencies in accordance with References 3.3 and 3.4.

4.1 Responsibilities

4.1.1 QA/QC SSEG Supervisor

The QA/QC SSEG Supervisor ensures that DRs received for evaluation are logged and dispositioned in a timely manner. The Supervisor ensures that knowledgeable personnel perform evaluations in accordance with established procedures and approves each Safety Significance Evaluation (SSE).

4.1.2 QA/QC SSEG Lead Discipline Engineer

QA/QC SSEG Lead Discipline Engineers review SSEs to ensure that they are performed in accordance with technically acceptable methods.

4.1.3 QA/QC Review Team Leader

The QA/QC Review Team Leader reviews and approves SSEs which identify apparent construction deficiencies.

4.1.4 QA/QC SSEG Discipline Engineer

QA/QC SSEG Discipline Engineers perform and document evaluations which determine whether the reported deviations are apparent construction deficiencies.

4.1.5 Checker

A checker examines any calculations prepared and made part of the SSE.

4.1.6 QA/QC Records Administrator

The QA/QC Records Administrator advises the QA/QC Coordinating Engineer of the status of approved evaluations and ensures their distribution. The QA/QC Records Administrator also maintains the file of SSEs, their associated memorandums, and marks SSEs as required.

4.2 Policy

Activities performed under this procedure shall conform to the policies contained in the latest Comanche Peak Response Team (CPRT) Program Plan and Issue-Specific Action Plans.

Should an activity be designated as the responsibility of a Lead Discipline Engineer, or higher, it may be delegated by that engineer to an individual under his or her supervision.

4.3 Conflicts

In the case of a conflict between this procedure and the documents referenced in Section 4.2, the latter shall govern.

4.4 Definitions

4.4.1 Construction Deficiency - Any identified construction deviation that has been determined to be safety-significant.

4.4.2 Safety-Significant - An identified discrepancy which, if uncorrected, would result in the loss of capability of the affected system, structure, or component to perform its intended safety function. Credit is not allowed for redundancy at the component, system, train or structure level.

5.0 PROCEDURE

5.1 Deviation Report Receipt and Assignment

Upon receipt of a valid DR forwarded for evaluation in accordance with Reference 3.1, or a concern from a Review Team other than the QA/QC Review Team, the QA/QC SSEG Supervisor ensures that it is logged in accordance with Attachment 6.1, then forwarded to the appropriate personnel for evaluation.

The SSEG Supervisor forwards valid DRs to the appropriate QA/QC SSEG Lead Discipline Engineer for evaluation. However, when a deviation appears to be in an area under evaluation by a Review Team other than the QA/QC Review Team, the Supervisor may, with the concurrence of the appropriate Review Team Leader and the QA/QC Review Team Leader, reassign it to that Review Team for safety significance evaluation.

Accordingly, the SSEG Supervisor shall obtain written confirmation from the responsible individual of the other Review Team which attests that procedures established to identify construction deficiencies meet the intent of this procedure. In the absence of such confirmation, the SSEG Supervisor shall, as required, provide written direction to perform evaluations in accordance with this procedure.

5.2 Safety Significance Evaluations

5.2.1 QA/QC SSEG Lead Discipline Engineers ensure that sufficient documentation relative to the reported condition is available for an analysis of safety significance. Should additional documentation be necessary, the Lead prepares a memorandum to the appropriate individual in order to obtain the information. Then the Lead assigns DRs to QA/QC SSEG Discipline Engineers for evaluation.

5.2.2 The SSEG Discipline Engineers perform an evaluation of the construction deviation described in the DR based upon the following guidelines:

- (a) The Discipline Engineer becomes familiar with the physical arrangement of the referenced item to perform the evaluation with the proper perspective. This may be accomplished by reviewing the Verification Package, project documents, and/or performing a plant inspection.
- (b) The intended safety function of the referenced item is determined. The description of the intended safety function is determined by its performance in the specific application.
- (c) The manner in which the attribute resulting in the construction deviation contributes to the likely performance of the intended safety function of the referenced item is determined. Licensing regulations, commitments, and engineering documents which substantiate this determination are referenced.
- (d) The required level of performance to meet the intended safety function of the item is identified by reference to plant design documents.
- (e) The likely performance of the referenced item considering its deviating attribute is determined either quantitatively or qualitatively. Project calculations may be referenced, or other calculations prepared by the SSEG. Should an SSEG calculation be used in the determination it shall include as applicable:
 - A concise statement of the problem or question, i.e., the objective.
 - Clear identification of any assumption.
 - A reference or description of the calculation method.

- Clear identification of inputs which include, as applicable, the technical document title, number, issue date, revision designation, and section, page, or table numbers, or incoming letter identification number, date, originator's name, addresses name, file location, and originator's source (when available).
- References to applicable codes, standards, etc., including issue and addenda information.
- A conclusive statement relative to the calculation objective and based on the analysis, i.e., the results which specify whether or not the deviation violates any code requirements.
- Clear identification of computer programs.

NOTE: Calculations utilizing programmable calculators or desk top computers shall include the program listing.

- (f) Should the referenced item be unlikely to perform its intended safety function, the reported construction deviation is considered to be safety-significant and is identified as a construction deficiency.
- (g) Should a construction deficiency be identified, the SSE shall include an analysis relative to the likely performance of any affected systems, the plant, and/or the effect on public safety.

5.2.3 QA/QC SSEG Discipline Engineers document evaluations of construction deviations in accordance with Attachment 6.2.

Should the analysis require the preparation of a calculation, it shall be made part of the SSE. The calculation shall exhibit the characteristics specified in Paragraph 5.2.2.4 and evidence of a satisfactory check by a technically competent engineer other than the preparer.

The QA/QC SSEG Lead Discipline Engineer may elect to obtain concurrence in the evaluation by a specialist or QA/QC SSEG Discipline Engineer in a related discipline. Accordingly, the responsible individual(s) initial and date the SSE in the "CHECKER" and/or "REVIEWED BY" portions of the form.

When the SSEG does not prepare a calculation, or it is inappropriate to obtain the concurrence of a specialist or other QA/QC SSEG Discipline Engineer, the preparer marks "N/A" (not applicable) in the "Checker" portion of the form, then forwards it to the appropriate QA/QC SSEG Lead Discipline Engineer for review.

5.3 Review and Approval

Technically competent individuals other than the preparer review and approve all evaluations before the results or conclusions provide input to or confirm other engineering decisions.

5.3.1 Checker

A technically competent engineer, other than the preparer, checks calculations prepared during the evaluation for accuracy and use of methodology. Checkers indicate their concurrence with independent calculations by signing and dating them in the appropriate space on the SSE.

5.3.2 QA/QC SSEG Lead Discipline Engineer

The QA/QC SSEG Lead Discipline Engineer knowledgeable in the applicable discipline ensures that each SSE is complete, accurate, and otherwise consistent with the requirements of this procedure. The responsible Lead concludes that an individual competent in the calculation discipline can rationalize the original work without recourse to the preparer.

5.3.3 QA/QC SSEG Supervisor

The QA/QC SSEG Supervisor, reviews the SSE to ensure that the method, any assumption used, and the results of the evaluation are appropriate.

Evaluations determined not to be safety-significant are approved by the QA/QC SSEG Supervisor and sent to the Records Administrator for distribution and control.

Evaluations that identify any construction deficiencies, or deviations which are likely to adversely impact the performance of any system, or plant safety functions, or effect the safety of the public are approved by the QA/OC SSEG Supervisor and sent to the QA/OC Review Team Leader (RTL).

5.3.4 QA/OC Review Team Leader

The QA/OC RTL reviews SSEs, as required, to ensure that the reported condition does not overlap a concern being investigated by another organization, e.g., another CPRT Review Team.

Should the review by the QA/OC RTL reveal that the reported condition was previously identified, it shall be documented on a memorandum prepared by the QA/OC RTL and addressed to "File". The memorandum shall provide instructions regarding the disposition of any affected DRs and indicate the concurrence of either the preparer/reviewer(s)/approver(s) of the referenced SSE, or the individuals acting in those capacities should the original signatories be no longer assigned to the CPRT. The affected SSE is also marked, in the space provided for the signature approval of the QA/OC RTL, "PREVIOUSLY REPORTED. Refer to (RTL)'s memorandum dated (Date) attached."

The QA/OC RTL sends approved SSEs and those marked "PREVIOUSLY REPORTED..." (with the required memorandum) to the QA/OC Records Administrator for distribution and control.

5.4 Distribution and Control

5.4.1 Records Administrator

Upon the receipt of SSEs from the QA/OC SSEG Supervisor, or the QA/OC RTL, the QA/OC Records Administrator advises the Coordinating Engineer and documents their transmittal on uniquely numbered memorandums which include provision for the TUGCO QA Coordinator to acknowledge receipt. In addition, the QA/OC Records Administrator maintains records to ensure that the TUGCO QA Coordinator is in receipt of all valid SSEs, e.g., a file of transmittals forwarded to and received from the TUGCO QA Coordinator in a loose-leaf binder. Copies, without attachments, are also sent to:

- QA/OC Engineering Supervisor or Issue Coordinator

- QA/QC Inspection Supervisor
- QA/QC Lead Discipline Engineer
- The QA/QC Interface Coordinator
- RTL other than the QA/QC RTL (Refer to Section 5.1)

Copies sent to the TUGCO QA Coordinator are evaluated for reportability in accordance with Reference 3.3.

Evaluations approved by the QA/QC RTL are sent to the individuals named above and the CPRT Program Director.

The Records Administrator maintains the file of distributed SSEs and associated memorandums (marked [ISAP Number] - 5.C).

NOTE: Superseded SSEs shall be clearly marked "SUPERSEDED. Refer to (SSE Number) Dated (Date)." Cancelled SSEs shall be clearly marked "CANCELLED. Refer to (Name)'s memo dated (Date)."

5.5 Revision

Should it be necessary to make a change to a SSE that would alter its result, the cognizant individual prepares a new SSE which includes the appropriate change(s), is identified to include, as applicable, the new DR number and clearly denotes "SUPERSEDES (SSE Number) Dated (Date)."

In addition, the cognizant individual prepares a memorandum which is addressed to "File" and provides a reasonable explanation regarding the change. The memorandum notes the superseded and superseding SSE numbers. The memorandum, with the new SSE attached, is routed for review. The new SSE is reviewed, approved, distributed, and controlled the same as the one it supersedes.

Otherwise, the cognizant individual shall make any innocuous changes to SSEs in accordance with Reference 3.5 and ensure that any previous recipients of the SSE are advised of its current status by distribution of the revised SSE.

5.6 Cancellation

Should there be documented evidence that, in effect, cancels a previously issued SSE, e.g., a memorandum that cancels a DR (see Reference 3.1), the cognizant individual ensures that the recipients of those SSEs are advised by memorandum of their correct status.

The memorandum is addressed to "Distribution" and provides a reasonable explanation regarding the cancellation and is routed for review and approval to the same organizations/ disciplines that performed the previous review and approval. Copies of all memorandums, as noted for distribution, are sent to the:

- Responsible QA/QC Engineering Supervisor or Issue Coordinator
- QA/QC Inspection Supervisor
- QA/QC Lead Discipline Engineer
- QA/QC Interface Coordinator
- QA/QC Coordinating Engineer
- RTL other than the QA/QC RTL (Refer to Section 5.1)
- QA/QC Records Administrator
- TUGCO QA Coordinator

Copies of memorandums which address SSEs approved by the QA/QC RTL are sent to the the individuals named above and the CPRT Program Director.

6.0 ATTACHMENTS

- 6.1 Safety Significance Evaluation Log (Sample and Instruction)
- 6.2 Safety Significance Evaluation Form (Sample and Instruction)

SAFETY SIGNIFICANCE EVALUATION LOG

COMANCHE PEAK RESPONSE TEAM SAFETY SIGNIFICANCE EVALUATION LOG				
LOG NO.	DEVIATION/ EVALUATION REPORT NO.	DATE RECEIVED	DATE SENT	RESPONSIBLE LEAD DISCIPLINE ENGINEER
(1)	(2)	(3)	(5)	(4)

SAMPLE

CPP-016.1, Revision 1

INSTRUCTIONS TO COMPLETE

FORM CPP-016.1

"SAFETY SIGNIFICANCE EVALUATION LOG"

On the day they are received, QA/QC SSEG Supervisor ensures that valid DRs are logged by entering the:

- (1) Unique log number, e.g., 1, 2, 3, etc.
- (2) Evaluation report number. The evaluation report number is comprised of the applicable Deviation Report number with the suffix "SSE", e.g., I-E-CABL-056-DR-1 SSE.
- (3) Date of receipt.
- (4) Name of the QA/QC SSEG Lead Discipline Engineer responsible for the evaluation.
- (5) Date the Safety Significance Evaluation approved by the QA/QC SSEG Supervisor was sent to the QA/QC Records Administrator for distribution in accordance with Section 5.4 of this procedure.

NOTE: Approved evaluations are distributed the same day that they are received.

SAFETY SIGNIFICANCE EVALUATION

COMANCHE PEAK RESPONSE TEAM SAFETY SIGNIFICANCE EVALUATION	
EVALUATION NUMBER: _____ (1)	SSE SHEET 1 OF _____ (2)
PREPARER: _____ (5) QA/QC SSEG DISCIPLINE ENGINEER	DATE: _____ (5)
CHECKER: _____ (6)	DATE: _____ (6)
THE FOLLOWING ANALYSIS SUPPORTS THE CONCLUSION CONCERNING THE SAFETY SIGNIFICANCE OF THE CONDITION DESCRIBED IN THE DEVIATION REPORT.	
ANALYSIS: <p style="text-align: center;">(3)</p> <p style="text-align: center; font-size: 48px; opacity: 0.3; transform: rotate(-15deg);">SAMPLE</p>	
CONCLUSION: BASED UPON THIS ANALYSIS, THE REPORTED CONDITION WILL/WILL NOT RESULT IN THE INABILITY OF THE AFFECTED ITEM TO PERFORM ITS INTENDED SAFETY RELATED FUNCTION. (4)	
REVIEWED BY: _____ (7) QA/QC SSEG LEAD DISCIPLINE ENGINEER	DATE: _____ (7)
APPROVED BY: _____ (8) QA/QC SSEG SUPERVISOR	DATE: _____ (8)
APPROVED BY: _____ (9) QA/QC REVIEW TEAM LEADER	DATE: _____ (9)

SAFETY SIGNIFICANCE EVALUATION
(Continuation Sheet)

COMANCHE PEAK RESPONSE TEAM SAFETY SIGNIFICANCE EVALUATION		
EVALUATION NUMBER	(1)	SSE
		SHEET (2) OF (2)
(3)		
SAMPLE		
CPP-016.2B, Revision 1		

INSTRUCTIONS TO COMPLETE

FORMS CPP-016.2A and CPP-016.2B

"SAFETY SIGNIFICANCE EVALUATION"

The responsible QA/QC SSEG Discipline Engineer completes Safety Significance Evaluations by entering:

- (1) The evaluation number consistent with the Safety Significance Evaluation log and cumulative number of pages.
- (2) Page number information.
- (3) The analysis which includes as required, computations, clear identification of the referenced computations, explanatory text, diagrams, assumptions, etc. which lead to the conclusion.

NOTE: Whenever possible, existing project calculations shall be used as a basis for the evaluation.

Attach additional sheets as required. Provide clear reference to any attachment, e.g., Refer to Attachment A. Mark the attachment A, B, C, etc. and include the appropriate evaluation number. Attachments may be numbered separately from the evaluation form. However, the total number of sheets shall be determinable and evident.

- (4) A conclusive statement consistent with the result of the analysis. The conclusion that the item will not perform its intended safety function is circled when the evaluation is safety-significant with respect to identifying a construction deficiency.
- (5) Signature as preparer and date.

As required, checkers verify calculations prepared during the Safety Significance Evaluation in accordance with Paragraph 5.3.1. Upon completion, the checker:

- (6) Sign and dates the form. Otherwise, the preparer enters "N/A" (not applicable) in the appropriate spaces.

NOTE: The same space may be used to indicate the concurrence of a specialist or QA/QC SSEG Discipline Engineer in a related discipline (refer to paragraph 5.2.3).

The responsible QA/QC SSEG Lead Discipline Engineer reviews evaluations to ensure that they are consistent with the requirements of this procedure (refer to Paragraph 5.3.2). Upon the completion of a satisfactory review, the Lead:

(7) Signs and dates the form.

NOTE: The same space may be used to indicate the concurrence of a specialist or QA/QC SSEG Discipline Engineer in a related discipline (refer to paragraph 5.2.3).

Upon the completion of a satisfactory review, the Supervisor indicates that the requirements in Paragraph 5.3.3 have been met by:

(8) Signing and dating the form.

NOTE: Should the evaluation result in a construction deficiency, the approval of the QA/QC RTL is also required. Otherwise, the SSEG Supervisor enters "N/A" in the space provided for that approval.

The QA/QC RTL reviews construction deficiencies in accordance with Paragraph 5.3.4. Upon the completion of a satisfactory review, the RTL:

(9) Signs and dates the form.