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USNRC

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

'87 NOV -2 P2:51

before the

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

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 I.a.2

In accordance with the Board's Memorandum; Proposed Memo-  
randum 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 I.a.2,  
"Inspection Reports on Butt-Splices."

Opening Request:

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

Response:

The CPRT-generated checklists used are part of the attached  
procedure. (See response to Question 2.) Completed copies of  
these checklists are part of the ISAP files.

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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:

This ISAP was prepared to respond to concerns raised by the TRT resulting from its investigation of three allegations of improper butt-splicing of cables in control panels. The TRT's primary concern was that inspection documentation did not appear in all cases to indicate that QC had witnessed each butt-splice as required.

The CPRT first reviewed the cases identified by the TRT to determine whether the concern was valid. An examination of the QC inspection documentation revealed that the required QC witness had not in all cases been documented.

Sampling was not employed in this ISAP. Once the concern was validated, the next phase of the ISAP included reinspection and documentation review of all splices that could be identified by a review of drawings for control panels. (Later, because of inaccuracies found in these drawings, more extensive searches for undocumented splices were performed.)

A formal root cause analysis was not performed before re-inspections and document reviews for the ISAP were initiated. A detailed root cause analysis of findings from the ISAP is presented in the Results Report.

With respect to the TRT concern about QC witness documentation, the root causes included lack of QC hold points in the craft installation procedure, inadequate QC supervision, and an apparent breakdown in the interface between engineering and construction personnel.

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:

Attached are copies of all revisions to the procedure used to reinspect the butt-splices. The associated documentation review consisted solely of a check to determine whether a record existed that QC had witnessed the butt-splice (though many other discrepancies were identified by the reviewers). Consequently, the former Review Team Leader (Mr. Jones) did not consider a procedure to be necessary. Mr. Mallanda and Mr. Pearson concur with this assessment.

Question No. 3:

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

Response:

As discussed in the root cause analysis section of the Results Report, neither the craft nor the QC procedure used during the original installation and inspection contained adequate requirements for the installation or inspection of these splices before the TRT investigation took place. The



checklist used by the CPRT was based on AMP installation and inspection instructions. Consequently, the CPRT checklist contains significantly more attributes than the original inspection checklist. (Revisions of the QC inspection procedure (QI-QP-11.3-28) were previously forwarded to the Board with the responses to these questions for the related ISAP I.a.1, "Heat-Shrinkable Cable Insulation Sleeves.")

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:

The checklist includes all important attributes except verification of proper conductor insertion depth and a check for strands not inserted into the wire barrel of the splice. These two attributes can only be verified completely by an in-process (i.e., "witness") inspection.

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:

The two attributes discussed in the response to question 4 and the unsatisfactory conditions noted in some cases for the remaining attributes led to the extensive analysis and testing discussed in detail in the Results Report (Section 5.2.6) and the ISAP files. The analysis included a determination of



worst-case pullout force that could be applied to a splice in a seismic event, and the testing consisted of a destructive pull-out test on a randomly-selected sample of splices that had been installed to the original procedures. The conclusion from that analysis and testing was that the installed splices were capable of performing their intended safety function.

Question No. 6:

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

Response:

No inspection was performed on Revisions 0 or 1 of QI-002, but inspections were performed on Revisions 2, 3, and 4. As documented in the ISAP file, Mr. Mallanda reviewed the changes from Revision 2 to Revision 3 and those from Revision 3 to Revision 4, concluding that either previous inspections had been backfit, or the changes did not have an impact on the previous inspections.

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:

Among the responsibilities of the QA/QC Review Team Leader (Mr. Hansel) was inspector training for inspections performed by the QA/QC Review Team under this ISAP. Based on information from Mr. Hansel, we understand that training consisted of

familiarizing inspectors with the inspection procedure, checklist(s), and ISAP. No further retraining was considered necessary because of the limited nature of the reinspections, the Level II or III qualification of inspectors, and their previous experience, nor was any further retraining undertaken.

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:

Many splices that were removed from the field were still available for observation when Mr. Mallanda and Mr. Pearson assumed their positions on the Electrical Review Team. Their comparison of some of these specimens with the checklists showed that checklist information accurately reflected the actual condition of the specimens.

Neither Mr. Mallanda nor Mr. Pearson is aware of any information regarding inter-observer reliability of the checklists or of any time period in which checklists were used with questionable training or QA/QC supervision.

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:

Other than the comparison of physical specimens previously mentioned, no audits or supervisory reviews were performed by the Electrical Review Team, or, to their knowledge, by the QA/QC Review Team.

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:

As discussed in the Results Report (pages 22-24), the Electrical Review Team made a preliminary recommendation that all splices installed before a certain time period be replaced. As Result Report "drafts" were often used by the review team to assist in developing thoughts in process, this recommendation may have been included in the "draft" report at one time.

Such a draft was never formally presented to the SRT, other TU Electric management, or the NRC; however, the content of the recommendation was presented in letter form to the SRT. Upon questioning by the SRT, Mr. Mallanda and Mr. Pearson stated that the subject splices were not known to be unacceptable, but proving their acceptability would be particularly difficult and time-consuming, and the conclusion was that the most expeditious action would be to replace the splices.



The SRT requested the Electrical Review Team to consider an alternative approach (e.g., a testing program). The Electrical Review Team did not object to this approach from a technical perspective.

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:

To aid in the Board's understanding of (1) how the issue became so complex and (2) why several tasks were added or changed while the ISAP was being implemented, a discussion follows regarding major problem areas encountered in carrying out the steps of the ISAP.

The original plan for resolving the issue employed the following approach (subsequent to issue validation discussed in the response to question 1):

- 1) Review drawings to determine which panels in the control room and cable spreading room had butt-splices shown and which did not.
- 2) For those that did not, conduct a reinspection on a sampling basis to confirm whether it was reasonable to conclude that these panels indeed had no splices installed.
- 3) For those that did, perform both a reinspection and a QC documentation review.

- 4) If the actions from step 3 revealed unacceptable splices, extend the investigation to other plant areas.

Early in the reinspection process, it became clear that drawings did not always match conditions found in the field (i.e. some conductors were spliced that were not authorized by engineering to be spliced, and some design documents indicated conductors were spliced when no such splice was found in the field). Because of these discrepancies, two scope expansions were initiated by the CPRT.

First, the sampling approach stated in step 2 above was superseded by a check of all panels. (This check revealed no unauthorized splices.) Second, panels that appeared to have significant mismatches with the drawings were completely re-inspected to determine the extent of unauthorized splicing. The results of this activity are discussed in the Results Report.

Question No. 12:

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

Response:

Mr. Mallanda and Mr. Pearson know of no ambiguities in the Results Report. Open items are discussed throughout the Results Report and specifically summarized in Section 7.0, "Ongoing Activities."

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 all reinspections and documentation reviews except Phase I (which validated the TRT concern) were performed by third-party personnel, no known conflict of interest exists.

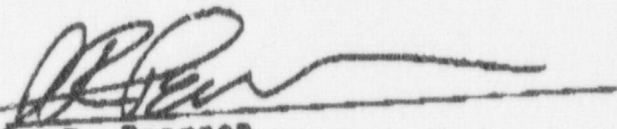
Question No. 14:

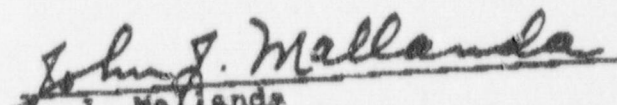
14) ~~was the report to see that it adequately discloses the~~  
~~thinking and rationale behind it~~ ~~is the question of ambiguity~~  
or the discussion gives rise to obvious questions, the ambiguities and anticipate and resolve the questions.

Response:

In preparing the responses to questions 1-13, Mr. Mallanda and Mr. Pearson have reread the Results Report. Though no ambiguity of the type indicated would have been deliberately left in the report, this rereading (several months after report publication) permitted a check for such ambiguities when the details were not so fresh in the minds of the authors. No such ambiguity was noted.

Respectfully submitted,

  
J. R. Pearson  
Action Plan I.a.2  
Issue Coordinator

  
J. J. Mallanda  
Review Team Leader

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



COMANCHE PEAK RESPONSE TEAM  
QUALITY INSTRUCTION  
CPRT ACTION ITEM I.a.3

## HISTORICAL FILE

FOR INFORMATION ONLY

INSTRUCTION NO.

QI-002

REVISION

0

ISSUED DATE

1/3/85

PAGE

1 OF 2

Procedure for Class 1E Butt Splice Qualification - CPRT Action Item I.a.3

PREPARED BY: Albert S Hurbancik  
Evaluation Research CorporationDATE 1/3/85APPROVED BY: J. L. Hansel  
Evaluation Research CorporationDATE 1. 3. 85.APPROVED BY: M. B. Jones  
RTL Electrical InstrumentationDATE 1/3/851.0 References

- 1.1 Office memo, 12/7/84, M.B. Jones to J.L. Hansel "Action Item I.a.3 - Butt Splice Qualifications".
- 1.2 EEI-8, "Class 1E and Non-Class 1E Cable Terminations"

2.0 Purpose and Scope

- 2.1 The purpose of this Quality Instruction is to define the method by which to assure that no splice in a cable bundle is adjacent to and pressing upon another splice. This is in direct support of the CPRT Action Item I.a.3.
- 2.2 The scope of this Quality Instruction is limited to the physical inspection of cable bundles containing splices to insure that no splice is adjacent to and pressing upon another splice. This inspection will be limited to the Class 1E cabinets in the control room and cable spreading room that are known to have butt-splices in them.

3.0 Responsibilities

- 3.1 The Third Party Inspectors (ERC) shall be responsible for conducting the inspections of cable bundles containing splices and documenting the results. The Electrical/Instrumentation Review Team Leader is responsible for the review and approval of the inspection results and responsible for identification of cabinets that contain butt splices.

4.0 Instruction

- 4.1 The Quality Inspectors shall inspect the cabinets' cable bundles containing splices to insure that no splice in a bundle is adjacent to and pressing upon another splice (Ref.: EEI-8, Para 3.18 (c)).

4.2 Documentation

4.2.1 The Quality Inspectors will be furnished with the applicable drawings and documents required to inspect all cable splices in a panel to assure they are staggered within bundles.

4.2.2 The Quality Inspectors shall document the results of the inspection on the Inspection Report (IR) provided (Attachment 1). Complete a separate I.R. for each piece of equipment or cabinet.

The I.R. shall be completed in accordance with Attachment 2. The I.R. shall be reviewed for legibility, accuracy and completeness and approved by the ERC Level III. The completed I.R. shall be submitted to the Electrical/Instrumentation Review Team Leader for review/approval.

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QI-002 REV. 0

SHEET 1 OF \_\_\_\_\_

COMANCHE PEAK RESPONSE TEAM  
INSPECTION REPORT  
CPRT ACTION ITEM I.a.3DRAFT 1  
REV \_\_\_\_\_

ITEM DESCRIPTION: Butt Splice Qualification

EQUIPMENT NUMBER: 2DRAWING NUMBER: 3REVISION 4DCA's 5

## INSPECTION ATTRIBUTES:

Activity 1: Verify that common group splices are staggered as per EEI-8, Para. 3.18  
(c) "Splices within the same wire bundle shall be staggered so they are not touching each other".

CABLE ID #	SPLICE LOCATION	SAT.	UNSAT.	QC SIGNATURE	DATE	COMMENTS
<u>6</u>	<u>7</u>	<u>8</u>		<u>9</u>	<u>10</u>	<u>11</u>

REMARKS: 12

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\_\_\_\_\_  
\_\_\_\_\_

INSPECTOR 13 DATE \_\_\_\_\_ BADGE NO. \_\_\_\_\_REVIEW AND APPROVAL 14 DATE \_\_\_\_\_

Evaluation Research Corporation

REVIEW AND APPROVAL 15 DATE \_\_\_\_\_

Electrical/Instrumentation R.T.L.

3



REV. 4

REMARKS: 12

QI-002 REV 0

## Procedure for Butt Splice Qualification - CPRT Action Item I.a.3

INSPECTION REPORT  
(Completion Instruction)

The numbers below correspond to the numbered blocks on the inspection report:

1. Enter the Draft and/or Revision number of Action Item I.a.3 as applicable.
  2. Enter the Equipment or Cabinet number.
  3. Enter the Drawing number.
  4. Enter the Revision of the Drawing.
  5. Enter all DCA's.
  6. Enter the Identification number of the cable
  7. Enter the Specific location of the splice.
  8. Indicate whether the splice is SATISFACTORY or UNSATISFACTORY per Activity 1.
  9. Enter the Signature of the Inspector.
  10. Enter the Date the Inspection was performed.
  11. Indicate applicable DCA's.
  12. Identify any discrepancies with Drawing number and applicable DCA's.
  13. Signature, Date and Badge number of Inspector.
  14. Approval Signature and Date of ERC Level III.
  15. Approval Signature and Date of Review Team Leader.
- 6/6

FOR INFORMATION ONLY

COMANCHE PEAK RESPONSE TEAM  
QUALITY INSTRUCTION

CPRT ACTION ITEMS I.a.2 & I.a.3

INSTRUCTION NO.

QI-002

4.3.3.2  
I.a.2-3.003  
HISTORICAL FILE

REVISION

1

ISSUE DATE

1/8/85

PAGE

1 OF 3

PROCEDURE FOR: CPRT ACTION ITEM I.a.2, INSPECTION REPORT ON BUTT SPLICES and  
CPRT ACTION ITEM I.a.3, BUTT SPLICE QUALIFICATIONS

PREPARED BY Robert S. Hurbancik  
Evaluation Research Corporation

DATE 1/8/85

APPROVED BY Paul E. Oststadt  
Evaluation Research Corporation

DATE 1/8/85

APPROVED BY W.I. Vogelsang for M.B. Jones  
R.T.L. Elec./Instrumentation

DATE 1/8/85

1.0 REFERENCES

- 1.1 Office Memo, 1/4/85, M.B. Jones to J.L. Hansel "Action Item I.a.2 - Inspection Reports on Butt Splices"
- 1.2 Office memo, 12/7/84, M.B. Jones to J.L. Hansel "Action Item I.a.3 - Butt Splice Qualifications"
- 1.3 Office memo, 10/10/84, W.I. Vogelsang to M. Warner, "Action Items I.a.2 & I.a.3", List of Drawings Showing Class 1E Cabinets in the Control and Spreader Rooms with Butt Splices installed in them.
- 1.4 EEI-8, "Class 1E and Non-Class 1E Cable Terminations"
- 1.5 AMP Instruction/Maintenance/Inspection Sheet IS - 1559, Rev. 5/29/81.
- 1.6 Office Memo, 1/7/85, W.I. Vogelsang to J.L. Hansel; List of Class 1E Cabinets in the Control and Spreader Rooms that do not have butt splices installed.

2.0 PURPOSE AND SCOPE

2.1 The purpose of this Quality Instruction is:

- 1. To assure that no splice in a cable bundle is adjacent to and/or pressing upon another splice. This is in direct support of the CPRT Action Item I.a.3.
- 2. To assure that drawings correctly reflect the as-built condition and that the installed splices meet the FSAR, Procedural and SER requirements. This is in direct support of the CPRT Action Item I.a.2.

2.2 The scope of the Quality Instruction is limited to the physical inspection of Class 1E cabinets in the control room and cable spreading room to determine the acceptability of cable installations containing butt splices. This includes all cabinets known to contain butt splices and all cabinets where butt splices are not supposed to exist.

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### 3.0 RESPONSIBILITIES

- 3.1 The Third Party Inspectors (ERC) shall be responsible for conducting the inspections of cable bundles containing splices and documenting the results. The Electrical/Instrumentation Review Team Leader is responsible for the review and approval of the inspection results and responsible for identification of cabinets that require inspection.

### 4.0 INSTRUCTION

- 4.1 As this instruction covers inspections for two action items, the sequencing of the inspections shall be as follows: PART A Inspection Attribute shall be inspected, by cabinet, prior to PART B Inspection Attributes in order to establish existing conditions of the butt splices for Action Item I.a.3. The individual butt splices inspected for PART A will be all those identified and documented for PART B inspections.

NOTE: The PART A inspection will also necessitate breaking of the cable bundles. The bundles will be reinspected during implementation of PART B.

- 4.2 The Quality Inspectors shall inspect the Class 1E Cabinets for the following:

#### 4.2.1 INSPECTION ATTRIBUTE - Part A - Action Item I.a.3

Activity #1 - Verify installation of splices as per EEI-8 Para. 3.18(c), "Splices within the same wire bundle shall be staggered so that they are not touching each other."

#### 4.2.2 INSPECTION ATTRIBUTE - Part B - Action Item I.a.2

Activity #1 - Verify that the correct butt splice sleeves are installed. (Ref. 1.5 - figure 5 and Ref. 1.1)

Activity #2 - Verify that the butt splice sleeve is correctly indented. (Ref. 1.5 - figure 5 and Ref. 1.1)

Activity #3 - Verify that no conductor strands show outside the barrel of the butt splice sleeve. (Ref. 1.1)

Activity #4 - Verify that the wire on both sides of the splice is the same color and same conductor size. (Ref. 1.4 para. 3.18.b and Ref. 1.1)

Activity #5 - Verify that the splices are documented on the design document. (Ref. 1.4 para. 3.18.a)

Activity #6 - Verify that the insulation of the butt splice sleeve has not been heat shrunk. (Ref. 1.1)

Activity #7 - After rebundling, verify that butt splices within the same wire bundle shall be staggered so that they are not touching each other. (Ref. 1.4 para. 3.18.c)

NOTE: All unsatisfactory activities shall be described in the Remarks section of the Inspection Report.

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4.3 DOCUMENTATION

- 4.3.1 The Quality Inspectors will be furnished with the applicable drawings and documents required to perform inspections required in para. 4.1 and 4.2.
- 4.3.2 The Quality Inspectors shall document the results of the inspection on the Inspection Report (IR) provided (Attachment 1). Complete a separate I.R. for each piece of equipment or cabinet.
- 4.3.3 The I.R. shall be completed in accordance with Attachment 2. The I.R. shall be reviewed for legibility, accuracy and completeness and approved by the ERC Level III. The completed I.R. shall be submitted to the Electrical/Instrumentation Review Team Leader for review/approval.

COMANCHE PEAK RESPONSE TEAM  
INSPECTION REPORT - ACTION ITEMS I.a.2  
I.a.3

DRAFT 20 REV. \_\_\_\_  
DRAFT 21 REV. \_\_\_\_

EQUIPMENT # 1

TERMINATION DRAWING # 2 REVISION \_\_\_\_

DCA's 3

INSPECTION ATTRIBUTES: PART A - ACTION ITEM I.a.3

ACTIVITY #1	SAT.	UNSAT.	INSPECTOR SIGN.	DATE
	<u>4</u>		<u>5</u>	

INSPECTION ATTRIBUTES: PART B - ACTION ITEM I.a.2

CABLE ID #	COND. COLOR	ACT.1		ACT.2		ACT.3		ACT.4		ACT.5		ACT.6		ACT.7		INSP. SIGN.	DATE
		S	U	S	U	S	U	S	U	S	U	S	U	S	U		
<u>6</u>	<u>7</u>	<u>8</u>		<u>9</u>		<u>10</u>		<u>11</u>		<u>12</u>		<u>13</u>		<u>14</u>		<u>15</u>	

REMARKS: 16

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\_\_\_\_\_  
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INSPECTOR 17 DATE \_\_\_\_\_ BADGE # \_\_\_\_\_

REVIEW AND APPROVAL 18 DATE \_\_\_\_\_  
Evaluation Research Corporation

REVIEW AND APPROVAL 19 DATE \_\_\_\_\_  
R.T.L. Elec./Instrumentation

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COMANCHE PEAK RESPONSE TEAM - ACTION ITEM I.a.2 and I.a.3  
INSPECTION REPORT COMPLETION INSTRUCTIONS

THE NUMBERS BELOW CORRESPOND TO THE NUMBERED BLOCKS ON THE INSPECTION RECORD.

1. Enter the Equipment or Panel I.D. # being inspected.
2. Enter Termination drawing to be used for inspection and it's revision.
3. Enter all outstanding DCA's against the drawing.
4. Indicate SATISFACTORY or UNSATISFACTORY for Part A, Activity #1.
5. Inspector Signature and Date.
6. Enter Cable I.D. # being inspected.
7. Enter Cable Conductor color being inspected.
8. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #1
9. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #2.
10. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #3.
11. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #4.
12. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #5.
13. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #6.
14. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #7.
15. Inspectors Signature and Date.
16. Describe UNSATISFACTORY items, list applicable DCA's and the cable numbers to which they relate, and any other inspection comments.
17. Inspector Signature, Date and Badge #.
18. Approval Signature and Date of ERC Level III.
19. Approval Signature and Date of R.T.L. Elec./Instrumentation.
20. Enter Draft and Rev. of Action Item I.a.2.
21. Enter Draft and Rev. of Action Item I.a.3.

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COMANCHE PEAK RESPONSE TEAM - ACTION ITEM I.a.2 and I.a.3  
INSPECTION REPORT COMPLETION INSTRUCTIONS

THE NUMBERS BELOW CORRESPOND TO THE NUMBERED BLOCKS ON THE INSPECTION RECORD.

1. Enter the Equipment or Panel I.D. # being inspected.
2. Enter Termination drawing to be used for inspection and it's revision.
3. Enter all outstanding DCA's against the drawing.
4. Indicate SATISFACTORY or UNSATISFACTORY for Part A, Activity #1.
5. Inspector Signature and Date.
6. Enter Cable I.D. # being inspected.
7. Enter Cable Conductor color being inspected.
8. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #1
9. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #2.
10. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #3.
11. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #4.
12. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #5.
13. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #6.
14. Indicate SATISFACTORY or UNSATISFACTORY for PART B Activity #7.
15. Inspectors Signature and Date.
16. Describe UNSATISFACTORY items, list applicable DCA's and the cable numbers to which they relate, and any other inspection comments.
17. Inspector Signature, Date and Badge #.
18. Approval Signature and Date of ERC Level III.
19. Approval Signature and Date of R.T.L. Elec./Instrumentation.
20. Enter Draft and Rev. of Action Item I.a.2.
21. Enter Draft and Rev. of Action Item I.a.3.

n/7



FOR INFORMATION ONLY

COMANCHE PEAK RESPONSE TEAM  
QUALITY INSTRUCTION  
CPRT ACTION ITEMS I.a.2 & I.a.3

43.3.3  
I.a.2-3.004  
HISTORICAL FILE

INSTRUCTION NO.	REVISION	ISSUE DATE	PAGE
QI-002	2	1/9/85	1 OF 3

PROCEDURE FOR: CPRT ACTION ITEM I.a.2, INSPECTION REPORT ON BUTT SPLICES and  
CPRT ACTION ITEM I.a.3, BUTT SPLICE QUALIFICATIONS

PREPARED BY Albert S. Hurlbanch DATE 1/9/85  
Evaluation Research Corporation

APPROVED BY [Signature] R.T.L. (J.L. Hansel) DATE 1.9.85  
Evaluation Research Corporation

APPROVED BY [Signature] DATE 1.9.85  
R.T.L. Exec./Instrumentation

1.0 REFERENCES

- 1.1 Office Memo, 1/4/85, M.B. Jones to J.L. Hansel "Action Item I.a.2 - Inspection Reports on Butt Splices"
- 1.2 Office memo, 12/7/84, M.B. Jones to J.L. Hansel "Action Item I.a.3 - Butt Splice Qualifications"
- 1.3 Office memo, 10/10/84, W.I. Vogelsang to M. Warner, "Action Items I.a.2 & I.a.3", List of Drawings Showing Class 1E Cabinets in the Control and Spreader Rooms with Butt Splices installed in them.
- 1.4 EEI-8, "Class 1E and Non-Class 1E Cable Terminations"
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- 1.6 Office Memo, 1/7/85, W.I. Vogelsang to J.L. Hansel; List of Class 1E Cabinets in the Control and Spreader Rooms that do not have butt splices installed.

2.0 PURPOSE AND SCOPE

2.1 The purpose of this Quality Instruction is:

- 1. To assure that no splice in a cable bundle is adjacent to and/or pressing upon another splice. This is in direct support of the CPRT Action Item I.a.3.
- 2. To assure that drawings correctly reflect the as-built condition and that the installed splices meet the FSAR, Procedural and SER requirements. This is in direct support of the CPRT Action Item I.a.2.

2.2 The scope of the Quality Instruction is limited to the physical inspection of Class 1E cabinets in the control room and cable spreading room to determine the acceptability of cable installations containing butt splices. This includes all cabinets known to contain butt splices and all cabinets where butt splices are not supposed to exist.

1/5

FOR INFORMATION ONLY

I.a.2-3.007  
4.33.4

COMANCHE PEAK RESPONSE TEAM  
QUALITY INSTRUCTION  
CPRT ACTION ITEMS I.a.2 & I.a.3

HISTORICAL FILE

INSTRUCTION NO.

REVISION

ISSUE DATE

PAGE

0-100a

3

1/14/85

1 OF 4

PROCEDURE FOR: CPRT ACTION ITEM I.a.2, INSPECTION REPORT ON BUTT SPLICES and  
CPRT ACTION ITEM I.a.3, BUTT SPLICE QUALIFICATIONS

PREPARED BY

*Gayle S. Celler*  
Evaluation Research Corporation

ASN  
1/14/85

DATE

1/14/85

APPROVED BY

*John L. Hansel*  
Evaluation Research Corporation

DATE

1/14/85

APPROVED BY

*W.I. Vogelsang for M.B. Jones*  
R.T.L. Elec./Instrumentation

DATE

1/14/85

1.0 REFERENCES

- 1.1 Office Memo, 1/4/85, M.B. Jones to J.L. Hansel "Action Item I.a.2 - Inspection Reports on Butt Splices"
- 1.2 Office memo, 12/7/84, M.B. Jones to J.L. Hansel "Action Item I.a.3 - Butt Splice Qualifications"
- 1.3 Office memo, 10/10/84, W.I. Vogelsang to M. Warner, "Action Items I.a.2 & I.a.3", List of Drawings Showing Class 1E Cabinets in the Control and Spreader Rooms with Butt Splices installed in them.
- 1.4 EEI-8, "Class 1E and Non-Class 1E Cable Terminations"
- 1.5 AMP Instruction/Maintenance/Inspection Sheet IS - 1559, Rev. 5/29/81.
- 1.6 Office Memo, 1/7/85, W.I. Vogelsang to J.L. Hansel; List of Class 1E Cabinets in the Control and Spreader Rooms that do not have butt splices installed.
- 1.7 Office memo, 1/9/85, M.B. Jones to A.S. Hurbaneck; "Sampling Plan - Action Item I.a.2"
- 1.8 Office memo, 1/11/85, W.I. Vogelsang to A.S. Hurbaneck; Action Items I.a.2 and I.a.3 - Minimum Bending Radius for Permanent Conductor Training
- 1.9 Office memo, 1/13/85, A.S. Hurbaneck to M.B. Jones; Action Item I.a.2 - Sample Selection.
- 1.10 QI-QP-11.3-28 REV. 22 "Class 1E Cable Terminations"

2.0 PURPOSE AND SCOPE

2.1 The purpose of this Quality Instruction is:

1. To assure that no splice in a cable bundle is adjacent to and/or pressing upon another splice. This is in direct support of the CPRT Action Item I.a.3.

1/9

2.1 (cont.)

2. To assure that drawings correctly reflect the as-built condition and that the installed splices meet the FSAR, Procedural and SER requirements. This is in direct support of the CPRT Action Item I.a.2.

2.2 The scope of the Quality Instruction is limited to the documentation review for and physical inspection of cable installations in Class 1E cabinets in the control and cable spreading room to verify the following:

1. That randomly selected panels where butt splices are not supposed to exist do not have conductor butt splices installed.
2. Acceptability of cable installations that contain butt splices.

3.0 RESPONSIBILITIES

- 3.1 The Third Party Inspectors (ERC) shall be responsible for conducting inspections to determine the existence of unidentified butt splices in panels, the inspection of cable bundles containing splices and the review of related documentation.

The Electrical/Instrumentation Review Team Leader is responsible for the review and approval of the inspection results and responsible for identification of cabinets that require inspection.

4.0 INSTRUCTION

- 4.1 As the instruction covers inspections for two action items, the summary of activities shall be as follows:

- 1) PART A - Inspect by cabinet to identify existence of butt splices. Any cabinets found to be unsatisfactory (i.e. - cabinets that have butt splices where none should exist) during this inspection will be inspected in accordance with Parts B and C. If inspections necessitate breaking of cable bundles, rebundling will be inspected per Part C, Activity 7.
- 2) PART B - Inspect, by cabinet, to verify existing staggered condition of butt splice installations.
- 3) PART C - Inspect butt splice installations.

NOTE: If Part B inspections necessitate breaking of the cable bundles, the bundles will be reinspected during implementation of Part C.

- 4) PART D - Review the inspection reports associated with the cables inspected in Part C to determine if splices had (previously) been witnessed. Acceptable documentation may be used, by Third Party Inspectors, to determine that the Quality Attributes of a splice have been met.

2



4.2 The Quality Inspectors shall inspect the Class 1E Cabinets for the following:

4.2.1 INSPECTION ATTRIBUTES - PART A - Action Item I.a.2

Activity #1 - Verify that randomly selected Class 1E panels (ref. 1.9) do not contain butt spliced conductors.

4.2.2 INSPECTION ATTRIBUTES - PART B - Action Item I.a.3

Activity #1 - Verify installation of splices as per EEI-8 para. 3.18(c), "Splices within the same wire bundle shall be staggered so that they are not touching each other."

4.2.3 INSPECTION ATTRIBUTES - Part C - Action Item I.a.2

Activity #1 - Verify that the correct butt splice sleeves are installed. (Ref. 1.5 - figure 5 and Ref. 1.1)

Activity #2 - Verify that the butt splice sleeve is correctly indented. (Ref. 1.5 - figure 5 and Ref. 1.1)

Activity #3 - Verify that no conductor strands show outside the barrel of the butt splice sleeve. (Ref. 1.1)

Activity #4 - Verify that the wire on both sides of the splice is the same color and same conductor size. (Ref. 1.4 para. 3.18.b and Ref. 1.1)

Activity #5 - Verify that the splices are documented on the design document. (Ref. 1.4 para 3.18.a)

Activity #6 - Verify that the insulation of the butt splice sleeve has not been heat shrunk. (Ref. 1.1)

Activity #7 - Verify satisfactory rebundling of conductors. Rebundling will be considered satisfactory if:

1. Butt splices within the same bundle are staggered so that they are not touching each other. (Ref. 1.4 para. 3.18c)
2. Permanent conductor training bend radius meets the minimum bend radius requirements. (Ref. 1.8).
3. Cable separation meets requirements of reference 1.10 para. 3.2.14a.

NOTE: All unsatisfactory activities shall be described in the Remarks section of the Inspection Report.

4.2.4 DOCUMENT REVIEW ATTRIBUTES - Part D- Action Item I.a.2

Activity #1 - Review the inspection reports associated with cables inspected in Part C to determine if splices had previously been witnessed.

3

4.3 DOCUMENTATION

- 4.3.1 The Quality Inspectors will be furnished with the applicable drawings and documents required to perform inspections required in para. 4.1 and 4.2.
- 4.3.2 The Quality Inspectors shall document the results of inspections and document reviews as follows:

PART A (Inspections) - Attachment 3

PART B & C (Inspections) - Attachment 1

PART D (Review) - Memorandum to Electrical/Instrumentation Review Team Leader.

NOTE: If part C inspections necessitate the use of previous inspection results to determine the acceptability of an attribute, the inspector shall note the activity number and the previous I.R. number in the remarks section of the I.R.

- 4.3.3 The I.R.'s shall be completed in accordance with Attachments 2 and 3, as applicable. The I.R.'s shall be reviewed for legibility, accuracy and completeness and approved by the ERC Level III. The completed I.R. shall be submitted to the Electrical/Instrumentation Review Team Leader for review/approval.

4

COMANCHE PEAK RESPONSE TEAM  
INSPECTION REPORT - ACTION ITEMS I.a.2  
I.a.3

DRAFT 20 REV. \_\_\_\_\_  
DRAFT 21 REV. \_\_\_\_\_

EQUIPMENT # 1

TERMINATION DRAWING # 2 REVISION \_\_\_\_\_

DCA's 3

INSPECTION ATTRIBUTES: PART B - ACTION ITEM I.a.3

ACTIVITY #1	SAT.	UNSAT.	INSPECTOR SIGN.	DATE
	<u>4</u>		<u>5</u>	

INSPECTION ATTRIBUTES: PART C - ACTION ITEM I.a.2

CABLE ID #	COND. COLOR	ACT.1		ACT.2		ACT.3		ACT.4		ACT.5		ACT.6		ACT.7		INSP. SIGN.	DATE
		S	U	S	U	S	U	S	U	S	U	S	U	S	U		
<u>6</u>	<u>7</u>	<u>8</u>		<u>9</u>		<u>10</u>		<u>11</u>		<u>12</u>		<u>13</u>		<u>14</u>		<u>15</u>	

REMARKS: 16

INSPECTOR 17 DATE \_\_\_\_\_ BADGE # \_\_\_\_\_

REVIEW AND APPROVAL 18 DATE \_\_\_\_\_  
Evaluation Research Corporation

REVIEW AND APPROVAL 19 DATE \_\_\_\_\_  
R.T.L. Elec./Instrumentation

5





THE PEAK RESPONSE TEAM - ACTION ITEM I.a.2 and I.a.3  
INSPECTION REPORT COMPLETION INSTRUCTIONS

THE NUMBERS BELOW CORRESPOND TO THE NUMBERED BLOCKS ON THE INSPECTION RECORD.

1. Enter the Equipment or Panel I.D. # being inspected.
2. Enter Termination drawing to be used for inspection and it's revision.
3. Enter all outstanding DCA's against the drawing.
4. Indicate SATISFACTORY or UNSATISFACTORY for Part B, Activity #1.
5. Inspector Signature and Date.
6. Enter Cable I.D. # being inspected.
7. Enter Cable Conductor color being inspected.
8. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #1
9. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #2.
10. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #3.
11. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #4.
12. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #5.
13. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #6.
14. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #7.
15. Inspectors Signature and Date.
16. Describe UNSATISFACTORY items, list applicable DCA's and the cable numbers to which they relate, and any other inspection comments.
17. Inspector Signature, Date and Badge #.
18. Approval Signature and Date of ERC Level III.
19. Approval Signature and Date of R.T.L. Elec./Instrumentation.
20. Enter Draft and/or Rev. of Action Item I.a.2.
21. Enter Draft and/or Rev. of Action Item I.a.3.

1/

COMANCHE PEAK RESPONSE TEAM  
INSPECTION REPORT - ACTION ITEM I.a.2

DRAFT 1 REV. \_\_\_\_\_

Inspection Attribute - Part A - Action Item I.a.2

[illegible]

REMARKS: (8)

INSPECTOR           (9)           DATE                      BADGE #                     

REVIEW AND APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_  
Evaluation Research Corporation

REVIEW AND APPROVAL Review Team Leader Elec./Instrumentation DATE \_\_\_\_\_

8/



COMANCHE PEAK RESPONSE TEAM ACTION ITEM I.a.2  
INSPECTION REPORT COMPLETION INSTRUCTIONS

- 1) Enter Draft and/or Revision of Action Item I.a.2.
- 2) Enter Equipment number of panel inspected.
- 3) Enter Drawing used for inspection and current revision.
- 4) Enter all outstanding DCA's.
- 5) Indicate SATISFACTORY or UNSATISFACTORY for Activity #1.
- 6) Enter Inspector Signature.
- 7) Enter Date of Inspection.
- 8) Describe UNSATISFACTORY items, list applicable DCA's and the cable numbers to which they relate, and any other inspection comments.
- 9) Inspector Signature, Date and Badge Number.
- 10) Signature and Date of ERC Level III review.
- 11) Signature and Date of Review Team Leader Elec./Instrumentation.

9/9

COMANCHE PEAK RESPONSE TEAM  
QUALITY INSTRUCTION  
CPRT ACTION ITEMS I.a.2 & I.a.3

I.a.2-3.008

INSTRUCTION NO.	REVISION	ISSUE DATE	PAGE
<u>QI-002</u>	<u>4</u>	<u>2/5/85</u>	<u>1 OF 4</u>

PROCEDURE FOR: CPRT ACTION ITEM I.a.2, INSPECTION REPORT ON BUTT SPLICES and  
CPRT ACTION ITEM I.a.3, BUTT SPLICE QUALIFICATIONS

PREPARED BY Gayle L. Celli DATE 2/5/85  
Evaluation Research Corporation

APPROVED BY Paul E. Ostadt for J.L. HANSEL DATE 2/5/85  
Evaluation Research Corporation

APPROVED BY Jimmy D. Ingle for MARTIN B. JONES DATE 2/5/85  
R.T.E. Elec. Instrumentation

Ref. CPRT-726

1.0 REFERENCES

- 1.1 Office Memo, 1/4/85, M.B. Jones to J.L. Hansel "Action Item I.a.2 - Inspection Reports on Butt Splices"
- 1.2 Office memo, 12/7/84, M.B. Jones to J.L. Hansel "Action Item I.a.3 - Butt Splice Qualifications"
- 1.3 Office memo, 10/10/84, W.I. Vogelsang to M. Warner, "Action Items I.a.2 & I.a.3", List of Drawings Showing Class 1E Cabinets in the Control and Spreader Rooms with Butt Splices installed in them.
- 1.4 EEI-8, "Class 1E and Non-Class 1E Cable Terminations"
- 1.5 AMP Instruction/Maintenance/Inspection Sheet IS - 1559, Rev. 5/29/81.
- 1.6 Office Memo, 1/7/85, W.I. Vogelsang to J.L. Hansel; List of Class 1E Cabinets in the Control and Spreader Rooms that do not have butt splices installed.
- 1.7 Office memo, 1/9/85, M.B. Jones to A.S. Hurbank; "Sampling Plan - Action Item I.a.2"
- 1.8 Office memo, 1/11/85, W.I. Vogelsang to A.S. Hurbank; Action Items I.a.2 and I.a.3 - Minimum Bending Radius for Permanent Conductor Training
- 1.9 Office memo, 1/13/85, A.S. Hurbank to M.B. Jones; Action Item I.a.2 - Sample Selection.
- 1.10 QI-QP-11.3-28 REV. 22 "Class 1E Cable Terminations"
- 1.11 Office memo, 1/31/85/ M.B. Jones to A.S. Hurbank, "Action Plans I.a.2 and I.a.3 - Additional Butt-Splices Inspection"

1/9

## 2.0 PURPOSE AND SCOPE

### 2.1 The purpose of this Quality Instruction is:

1. To assure that no splice in a cable bundle is adjacent to and/or pressing upon another splice. This is in direct support of the CPRT Action Item I.a.3.
2. To assure that drawings correctly reflect the as-built condition and that installed splices meet the FSAR, Procedural and SER requirements. This is in direct support of the CPRT Action Item I.a.2.

### 2.2 The scope of the Quality Instruction is limited to the documentation review for and physical inspection of cable installations in Class 1E cabinets in the control and cable spreading room to verify the following:

1. That randomly selected panels where butt splices are not supposed to exist do not have conductor butt splices installed.
2. Acceptability of cable installations that contain butt splices.

NOTE: At the direction of the Electrical/Instrumentation Review Team Leader the scope of this Quality Instruction may be expanded to include Class 1E cabinets in areas other than the control and spreading room.

4

## 3.0 RESPONSIBILITIES

### 3.1 The Third Part Inspectors (ERC) shall be responsible for conducting inspections to determine the existence of unidentified butt splices in panels, the inspection of cable bundles containing splices and the review of related documentation.

The Electrical/Instrumentation Review Team Leader is responsible for the review and approval of the inspection results and responsible for identification of cabinets that require inspection.

## 4.0 INSTRUCTION

### 4.1 As the instruction covers inspections for two action items, the summary of activities shall be as follows:

- 1) PART A - Inspect by cabinets to identify existence of butt splices. Any cabinets found to be unsatisfactory (i.e. - Cabinets that have butt splices where none should exist) during this inspection will be inspected in accordance with Parts "B" and "C". If inspections necessitate breaking of cable bundles, rebundling will be inspected per Part C, Activity 7.
- 2) PART B - Inspect, by cabinet, to verify existing staggered condition of butt splice installations.
- 3) PART C - Inspect butt splice installations.

NOTE: If Part B inspections necessitate breaking of the cable bundles, the bundles will be reinspected during implementation of Part C.

2



4.1 (cont.)

- 4) PART D - Review of the inspection reports associated with the cables inspected in Part C to determine if splices had (previously) been witnessed. Acceptable documentation may be used, by Third Party Inspectors, to determine that the quality attributes of a splice have been met.

4.2 The Quality Inspectors shall inspect the Class 1E Cabinets for the following:

4.2.1 INSPECTION ATTRIBUTES - PART A - Action Item I.a.2

Activity #1 - Verify that randomly selected Class 1E panels (ref. 1.9) do not contain butt spliced conductors.

4.2.2 INSPECTION ATTRIBUTES - PART B - Action Item I.a.3

Activity #1 - Verify installation of splices as per EEI-8 para. 3.18(c), "Splices within the same wire bundle shall be staggered so that they are not touching each other."

4.2.3 INSPECTION ATTRIBUTES - Part C - Action Item I.a.2

Activity #1 - Verify that the correct butt splice sleeves are installed.  
(Ref. 1.5 - figure 5 and Ref. 1.1)

Activity #2 - Verify that the butt splice sleeve is correctly indented.  
(Ref. 1.5 - figure 5 and Ref. 1.1)

Activity #3 - Verify that no conductor strands show outside the barrel of the butt splice sleeve. (Ref. 1.1)

Activity #4 - Verify that the wire on both sides of the splice is the same color and same conductor size. (Ref. 1.4 para. 3.18.b and Ref. 1.1)

Activity #5 - Verify that the splices are documented on the design document.  
(Ref. 1.4 para 3.18.a)

Activity #6 - Verify that the insulation of the butt splice sleeve has not been heat shrunk. (Ref. 1.1)

Activity #7 - Verify satisfactory rebundling of conductors. Rebundling will be considered satisfactory if:

1. Butt splices within the same bundle are staggered so that they are not touching each other. (Ref. 1.4 para. 3.18c)
2. Permanent conductor training bend radius meets the minimum bend radius requirements. (Ref. 1.8).
3. Cable separation meets requirements of reference 1.10 para. 3.2.14a.

NOTE: All unsatisfactory activities shall be described in the Remarks section of the Inspection Report.

3

4.2.4 DOCUMENT REVIEW ATTRIBUTES - Part D - Action Item I.a.2

Activity #1 - Review the inspection reports associated with cables inspected in Part C to determine if splices had previously been witnessed.

4.3 DOCUMENTATION

4.3.1 The Quality Inspectors will be furnished with the applicable drawings and documents required to perform inspections required in para. 4.1 and 4.2.

4.3.2 The Quality Inspectors shall document the results of inspections and document reviews as follows:

PART A (Inspections) - Attachment 3.

PART B & C (Inspections) - Attachment 1

PART D (Review) - Memorandum to Electrical/Instrumentation Review Team Leader.

NOTE: If Part C inspections necessitate the use of previous inspection results to determine the acceptability of an attribute, the inspector shall note the activity number and the previous I.R. number in the remarks section of the I.R.

4.3.3 The I.R.'s shall be completed in accordance with Attachments 2 and 3, as applicable. The I.R.'s shall be reviewed for legibility, accuracy and completeness and approved by the ERC Level III. The completed I.R. shall be submitted to the Electrical/Instrumentation Review Team Leader for review/approval.







COMANCHE PEAK RESPONSE TEAM - ACTION ITEM I.a.2 and I.a.3  
INSPECTION REPORT COMPLETION INSTRUCTIONS

THE NUMBERS BELOW CORRESPOND TO THE NUMBERED BLOCKS ON THE INSPECTION RECORD.

1. Enter the Equipment or Panel I.D. # being inspected.
  2. Enter Termination drawing to be used for inspection and it's revision.
  3. Enter all outstanding DCA's against the drawing.
  4. Indicate SATISFACTORY or UNSATISFACTORY for Part B, Activity #1.
  5. Inspector Signature and Date.
  6. Enter Cable I.D. # being inspected.
  7. Enter Cable Conductor color being inspected.
  8. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #1
  9. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #2.
  10. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #3.
  11. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #4.
  12. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #5.
  13. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #6.
  14. Indicate SATISFACTORY or UNSATISFACTORY for PART C Activity #7.
  15. Inspectors Signature and Date.
  16. Describe UNSATISFACTORY items, list applicable DCA's and the cable numbers to which they relate, and any other inspection comments.
  17. Inspector Signature, Date and Badge #.
  18. Approval Signature and Date of ERC Level III.
  19. Approval Signature and Date of R.T.L. Elec./Instrumentation.
  20. Enter Draft and/or Rev. of Action Item I.a.2.
  21. Enter Draft and/or Rev. of Action Item I.a.3.
- 2

COMANCHE PEAK RESPONSE TEAM  
INSPECTION REPORT - ACTION ITEM I.a.2

DRAFT 1 REV. \_\_\_\_\_

Inspection Attribute - Part A - Action Item I.a.2

[illegible]

REMARKS: 8

INSPECTOR 9 DATE \_\_\_\_\_ BADGE # \_\_\_\_\_

REVIEW AND APPROVAL (10) DATE \_\_\_\_\_  
Evaluation Research Corporation

REVIEW AND APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_  
 Review Team Leader Elec./Instrumentation



COMANCHE PEAK RESPONSE TEAM ACTION ITEM I.a.2  
INSPECTION REPORT COMPLETION INSTRUCTIONS

- 1) Enter Draft and/or Revision of Action Item I.a.2.
- 2) Enter Equipment number of panel inspected.
- 3) Enter Drawing used for inspection and current revision.
- 4) Enter all outstanding DCA's.
- 5) Indicate SATISFACTORY or UNSATISFACTORY for Activity #1.
- 6) Enter Inspector Signature.
- 7) Enter Date of Inspection.
- 8) Describe UNSATISFACTORY items, list applicable DCA's and the cable numbers to which they relate, and any other inspection comments.
- 9) Inspector Signature, Date and Badge Number.
- 10) Signature and Date of ERC Level III review.
- 11) Signature and Date of Review Team Leader Elec./Instrumentation.

9/9

DOCKETED  
USNRC

CERTIFICATE OF SERVICE

'87 NOV -2 P2:51

I, R. K. Gad III, hereby certify that on October 29, 1987, I made service of "Answers to Board's 14 Questions (Memo, Proposed Memo of April 14, 1986) Regarding Action Plan Results Report I.a.2" by mailing copies thereof, postage prepaid, to:

Peter B. Bloch, Esquire  
Chairman  
Administrative Judge  
Atomic Safety and Licensing  
Board  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Asst. Director for Inspection  
Programs  
Comanche Peak Project Division  
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Administrative Judge  
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Ms. Billie Pirner Garde  
GAP-Midwest Office  
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Appleton, WI 54911-4897

Chairman  
Atomic Safety and Licensing  
Appeal Panel  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Chairman  
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President, CASE  
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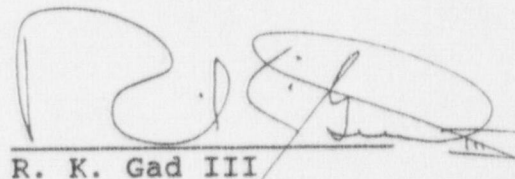
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Geary S. Mizuno, Esquire  
Office of the Executive  
Legal Director  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555



R. K. Gad III