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Filed: March 1, 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.c

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.c, "Construction Reinspection/Documentation Review Plan."

Opening Request:

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

Response:

Multiple checklists in the form of Quality Instructions were developed and used during implementation of Issue-specific Action Plan (ISAP) VII.c.

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The checklists from these instructions delineating the inspection requirements are attached.

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 self-initiated to give TU Electric management assurance of the safety of the Comanche Peak Steam Electric Station (CPSES), regardless of the extent to which issues might have been raised by external sources. ISAP VII.c included a reinspection/documentation review of the safety-related products of construction work activities performed at CPSES that were accepted by Quality Control (QC). This review was intended to provide additional confidence ensuring that the investigative efforts of the CPRT program were of sufficient depth and breadth to permit conclusive statements regarding the adequacy of CPSES quality of construction to be extended to the balance of the A-E design scope for the safety-related portions of the plant. The visual reinspection and documentation review effort also produced data useful for the evaluations performed under other action plans and extended into areas that were specifically identified by external sources.

This self-initiated action plan was developed and implemented primarily because it represented the most direct, reliable, and achievable method of producing additional confidence

that previously-unidentified concerns related to the quality of construction of the hardware at CPSES would be identified, evaluated, and resolved. It also provided additional confidence that any adverse impact on installed hardware that might have resulted from potentially inadequate qualification of historical QC inspectors would be identified and addressed.

ISAP VII.c consisted of a sample reinspection of accessible QC-accepted safety-related construction work products, supplemented by a review of related quality documentation when inspection attributes were generically not recreatable. It covered all Unit 1, Unit 2, and common areas, including those not specifically covered by other CPRT ISAPs.

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-008 Reinspection of Conduit/I-E-CDUT

QI-010 Reinspection of Electrical Equipment/I-E-EEIN

QI-011 Documentation Review of Electrical Equipment/ R-E-EEIN

QI-012 Reinspection of Instrumentation Equipment/I-E-ININ

QI-013 Documentation Review for Instrumentation Equipment/ R-E-ININ

QI-014 Reinspection of Cables/I-E-CABL

QI-015 Documentation Review of Cables/R-E-CABL

QI-016 Reinspection of Cable Trays/I-E-CATY

QI-017 Documentation Review of Cable Tray/R-E-CATY

QI-019 Reinspection of Small Bore Pipe Supports/I-S-SBPS

QI-020 Documentation Review of Small Bore Pipe Supports/ R-S-SBPS

QI-021 Reinspection of Piping System Bolted Joint/ Materials/I-M-PBOM

QI-022 Documentation Review of Piping System Bolted Joints/Material/R-M-PBOM

QI-023 Reinspection of HVAC Equipment Installation/ I-M-HVIN

QI-025 Reinspection of Large Bore Piping Configuration/ I-M-LBCO

QI-026 Reinspection of Small Bore Piping Configuration/ I-M-SBCO

QI-027 Reinspection of Large Bore Pipe Supports - Rigid/ I-S-LBSR

QI-028 Documentation Review of Large Bore Pipe Supports - Rigid/R-S-LBSR

QI-029 Reinspection of Large Bore Pipe Supports - Non-rigid/I-S-LBSN

QI-030 Documentation Review of Large Bore Pipe Supports - Non-rigid/R-S-LBSN

QI-031 Reinspection of Containment Liner and Tank Stainless Steel Liner/I-S-LINR

QI-032 Documentation Review of Containment Liner and Tank Stainless Steel Liners/R-S-LINR

QI-033 Reinspection of Fuel Building Fuel Pool Liners/ I-S-FPLR

QI-034 Documentation Review of Fuel Building Fuel Pool Liners/R-S-FPLR

QI-035 Reinspection of HVAC Duct Supports/I-S-HVDS

QI-036 Documentation Review of HVAC Duct Supports/R-S-HVDS

QI-039 Reinspection of HVAC Ducts and Plenums/I-M-DUPL

QI-040 Documentation Review of HVAC Ducts and Plenums/ R-M-DUPL

QI-041 Reinspection of Field Fabricated Tanks/I-M-FFTA

QI-042 Documentation Review of Field Fabricated Tanks/ R-M-FFTA

QI-043 Reinspection of Concrete Placement/I-S-CONC

QI-044 Documentation Review of Concrete Placements/ R-S-CONC

QI-045 Reinspection of Structural Steel/I-S-STEL

QI-046 Documentation Review of Structural Steel/R-S-STEL

QI-047 Reinspection of Small Bore Pipe Welds/Materials/ I-M-SBWM

QI-048 Documentation Review of Tubing Welds/Material/ R-M-TUW.

QI-049 Reinspection of Large Bore Pipe Welds/Materials/ I-M-LBWM

QI-050 Reinspection of Pipe Welds/Material/I-M-PIWM

QI-051 Reinspection of Pipe Whip Restraints/I-S-PWRE

QI-052 Documentation Review of Pipe Whip Restraints/ R-S-PWRE

QI-053 Reinspection of Category I Conduit Supports/ I-S-COSP

QI-054 Documentation Review of Category I Conduit Supports/R-S-COSP

QI-055 Reinspection of Instrument Pipe/Tube Supports/ I-S-INSP

QI-056 Documentation Review of Instrument Pipe/Tubing Supports/R-S-INSP

QI-057 Documentation Review of Fill and Backfill Placement/R-S-FILL

QI-059 Reinspection of Mechanical Equipment Installation/ I-M-MEIN

QI-066 Reinspection of Equipment Supports/I-S-EQSP

QI-067 Documentation Review of Equipment Supports/R-S-EQSP

QI-068 Documentation Review of Cement Grout/R-S-GRTC

QI-069 Documentation Review of Epoxy Grout/R-S-GRTE

QI-070 Reinspection of Tubing Welds Material/I-M-TUWM

QI-071 Reinspection of Lighting Cable/I-E-LITG

QI-072 Documentation Review of Lighting Cable, R-E-LITG

QI-073 Documentation Review of Pipe Welds/Material/ R-M-PIWM

QI-074 Documentation Review of NIS Cable Terminations/ R-E-NIST

QI-075 Reinspection of Piping Bends Fabrication/I-M-PBFA

Please note that some numbers in sequence appear to be omitted. These numbers were assigned to quality instructions generated for other ISAPs or investigations.

Question No. 3:

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

Response:

For each checklist, attributes that have safety significance were determined according to the following definition: A safety-significant attribute encompasses one or more characteristics of a component or construction activity that, if not in accordance with applicable design documents, codes, and standards, could impair the ability of the component/activity to perform its safety-related function under design loading conditions.

To determine safety-significant attributes, the QA/QC Review Team reviewed relevant design information, including design drawings, specifications, and other required documents (such as codes and standards) incorporated by reference into the specifications. At the time the CPRT checklists were formulated, no comparison was made between the CPRT checklists and

the inspection report documents initially used in inspecting the same attributes. However, if a finding was identified by the CPRT as the result of a reinspection or documentation review conducted under ISAP VII.c, the subsequent root cause evaluation process often examined the original inspection documentation and underlying inspection procedure in pursuit of root cause.

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 appropriate design documents (FSAR, specifications, etc.) contained the criteria to meet code requirements. These documents were reviewed to determine attributes that have safety significance; i.e., attributes that have a potential to impair a component's or system's ability to perform its safety-related function under design loading conditions.

Attributes that were (1) excluded for being non-safety-significant, (2) included in other action plans, or (3) included in documented corrective action programs from the reinspection/documentation checklists were documented and retained in the VII.c file.

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:

Please see 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:

All items in the random sample from each construction work category were inspected to the final issue of each checklist. The working files contain a history of all checklist revisions, including reasons for changes.

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 Quality Instructions and related checklists were issued, they were reviewed in detail with the inspection personnel assigned to the VII.c reinspection program. Before inspections began, each attribute's inspection instruction 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. All training was documented; the VII.c files contain this 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:

The CPRT QOC Group instituted an overview program of surveillance of the work performed by 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.

Additionally, please see the response to question 11.

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:

All QA/QC Review Team activities have been included in audits conducted to date. Responses and corrective actions were subsequently verified during follow-up audits.

Audits of the training of QA/QC Review Team personnel and audits of the procedural checklists they used were performed directly or indirectly. Following is a tabulation of those audits to date for ISAP VII.c:

Audit S/N	Method	ISAP	Procedure
86-06	indirect	VII.c	CPP-003, QAP-28
86-03	direct	VII.c	CPP-003
86-02	direct	VII.c	CPP-003
85-03	direct	VII.c	CPP-003
85-01	direct	VII.c	CPP-003

The QA surveillance program continually verified QA/QC Review Team compliance concurrent with specific activities and supplied current information to the RTL and key QA/QC personnel regarding:

- performance in accordance with program requirements and procedures
- program activities that required correction

Formal corrective actions were tracked and followed to closure.

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 modification was made to Results Report drafts 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:

On January 7, 1986, the NRC identified a concern regarding the differences in results obtained from hardware inspections performed by the CPRT and surveillance inspections performed by the NRC. These differences were characterized by NRC personnel as occurring at a rather high rate. Based on this information, the SRT temporarily suspended the CPRT hardware inspection in order to determine the extent and causes of the apparent inspection errors and to institute any appropriate corrective action. A five-man subcommittee was appointed by the SRT chairman to conduct this investigation.

The results of the investigation revealed that some NRC concerns were valid and that the consequent error rate difference was approximately 1%. While this rate is not unacceptably high, the SRT investigation did identify opportunities to improve the then-current inspection efforts.

Specific recommendations for program enhancement were made as follows:

1. Complete review of QIs to eliminate omissions and sources of possible interpretive errors.
2. Conduct training and walkdowns on QIs for reinspection personnel and others as necessary.
3. Emphasize to all personnel that the highest priority is completeness and accuracy on the inspections. Schedule considerations, while important, are secondary to work quality.
4. The SRT subcommittee should conduct a debriefing session for QOC personnel who participated in the investigation and include other interested parties as appropriate.

These recommendations were implemented along with several others described in Corrective Action Request (CAR) CP-016. Included in the CAR action was a reinspection of hardware populations with a high inspection error rate and the recommitment to perform overview inspections. This overview program described previously in the response to question 8 was just starting when the VII.c inspections were halted. CAR CP-016 confirmed the intent to track the inspection error rates of individual inspectors and discipline groups and to take timely corrective action as necessary. With implementation of the corrective action, the inspections for VII.c were resumed in late January 1986. The NRC formally transmitted their findings in inspection report 50-445/86-01; 50-446/86-01, which identified two CPRT deviations related to the failure to comply with

approved instructions in performance of reinspections and inadequate engineering review during preparation of an inspection checklist. TU Electric responded, describing the corrective action taken. No further unexpected difficulties were encountered in this area.

Another area of difficulty was encountered when the NRC expressed some concern regarding safety significance evaluations. On September 1, 1987, TU Electric received NRC inspection report 50-445/87-04; 50-446/87-04. The inspection examined CPRT activity related to the evaluation of inspection and documentation review deviations for safety significance.

Certain weaknesses, including some of potential generic concern, were identified with respect to the safety significance evaluation (SSE) process and results. Areas of potential generic concern included: (1) determinations that deviations based on lack of required documentation were not safety-significant, (2) improper or inadequate checking of calculations, (3) no consideration of manufacturer criteria and recommendations in performing SSEs, and (4) apparent lack of consideration of the need to update or rectify certified stress/design reports.

The CPRT undertook two safety significance evaluation review programs. The first program, "SSE Continuing Review Program," was performed to (1) provide assurance that the SSEs accurately analyzed the deviating plant conditions and identified construction deficiencies or input to Results Reports for

trend analysis and (2) ensure that the SSEs conformed to the Safety Significance Evaluation Group procedural requirements, such as problem description, completeness, and justification of conclusions. This program developed a screening process to determine which SSEs were to be subjected to a more detailed review. The objective of the screen was to focus the review on those SSEs that could have led to the failure to identify all construction deficiencies or adverse trends.

The second program, "VII.c Technical Review Program," was conducted to ensure that the trend analysis process of the VII.c program, as implemented, did not fail to identify any adverse or unclassified trends. To accomplish this task, a technical review of the SSEs, as well as the trend analyses conducted for VII.c, was performed. The Technical Review Program included all SSEs and associated calculations, with the exception of (1) SSEs for deviations that are already covered under CPRT recommendations for corrective action, (2) deviations that by their nature cannot be safety-significant, and (3) documentation review deviations.

These two review programs resulted in a recommendation that a number of SSEs be revised, primarily for clarification or completeness. These revisions were completed by December 17, 1987.

As of January 31, 1988, responses have been submitted to the NRC for all open items on NRC inspection report 50-445/87-04; 50-446/87-04.

Question No. 12:

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

Response:

No ambiguities exist in the ISAP VII.c Results Report. Several items that could not be addressed in the individual appendices (for example, cross-population generic implications) were referred to the Collective Evaluation Report for resolution.

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:

The CPRT instituted an objectivity evaluation procedure that required personnel involved in CPRT activities carefully to examine possible areas of conflict and to signify whether a conflict existed. No worker or supervisor has reviewed, evaluated, or supervised any aspect of the review or evaluation of his own work. No conflicts of interest exist.

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:

We believe that no ambiguities exist and that no obvious questions are unanswered.

Respectfully submitted,

John M. Schauf
Action Plan VII.c
Issue Coordinator

John L. Hansel
Review Team Leader

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 2
Conduit	I-E-CDUT	
QUALITY INSTRUCTION	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2
		[ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1) Size & Material a b				
2) Identification a b c				
3) Origin and Destination				
4) Fittings a b c d				
5) Expansion Fittings				
6) Bends				
7) Length and Pull Points				

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

POPULATION DESC: Conduit	VERIFICATION PKG NO.: I-E-CDUT			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
8) Flexible Conduit				
a				
b				
c				
d				
9) Cable Tray Interface				
a				
b				
10) Clearance				
a				
b				
11) Fire Stops and Seals				
a				
b				
c				
d				
12) Separation				
a1				
a2				
b1				
b2				
c1				
c2				
c3				
d1				
d2				
e1				
e2				
13) Junction Boxes				
a				
b				

REINSPECTION CHECKLIST ELECTRICAL EQUIPMENT

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC ELECTRICAL EQUIPMENT	VERIFICATION PKG NO. I-E-EEIN	PAGE 1 OF 1
QUALITY INSTRUCTION QI-010	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1 Physical Identification				
2 Assembly or Modifications				
3 Location and Orientation				
a. Location				
b. Orientation				
4 Damage				

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

CPP-007.16, Revision 0

CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST		
POPULATION DESC Electrical Equipment	VERIFICATION PKG NO. E-E-EEIN	PAGE 1 OF ___
QUALITY INSTRUCTION QI-011	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Assembly, Modification and Inspector Certification	X	X	X	Document Number
a. Assembly or Modification				
b. Inspector Certification				
1. Assembly, Modification and Inspector Certification	X	X	X	Document Number
a. Assembly or Modification				
b. Inspector Certification				
1. Assembly, Modification and Inspector Certification	X	X	X	Document Number
a. Assembly or Modification				
b. Inspector Certification				

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

CHECKLIST
(Cont'd)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC Electrical Equipment	VERIFICATION PKG NO. R-E-EEIN			PAGE __ OF ___
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Assembly, Modification and Inspector Certification	X	X	X	Document Number
a. Assembly or Modification				
b. Inspector Certification				
1. Assembly, Modification and Inspector Certification	X	X	X	Document Number
a. Assembly or Modification				
b. Inspector Certification				
1. Assembly, Modification and Inspector Certification	X	X	X	Document Number
a. Assembly or Modification				
b. Inspector Certification				
1. Assembly, Modification and Inspector Certification	X	X	X	Document Number
a. Assembly or Modification				
b. Inspector Certification				

CPP-007.1B, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC INSTRUMENTATION EQUIPMENT	VERIFICATION PKG NO. I-E-ININ	PAGE 1 OF 1
QUALITY INSTRUCTION QI-012	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Instrumentation Piping/ Tubing and Components				
1.1 Material Identification				
1.2 Piping/Tubing Size and Marking				
a.				
b.				
1.3 Routing				
1.4 Slope				
1.5 Air Gap				
1.6 Separation				
1.7 System Bends				
a.				
b.				
1.8 Flex Hose Installation				
2. Instruments				
2.1 Identification				
2.2 Location				
2.3 Installation				
2.4 Separation				
2.5 Damage				

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

POPULATION DESC Instrumentation Equipment	VERIFICATION PKG NO. R-E-ININ-	PAGE 1 OF 1
QUALITY INSTRUCTION QI-013	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Inspection Report and Inspector Certification				
2. Instrumentation Tubing Manufacturing Record Sheet and Inspector Certification				
3. Tube Bender Qualification Form 3.1				
% Ovality, If More Than 8% _____ 3.2				

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

POPULATION DESC CABLES	VERIFICATION PKG NO. I-E-CABL	PAGE 1 OF 2
QUALITY INSTRUCTION QI-014	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1) Size/Type/Color				
a				
b				
c				
d				
2) Damage				
a				
b				
3) Spacing (Power Cables)				
a				
b				
4) Slack				
a				
b				
c				
d				
5) Identification				
a				
b				
6) Routing				

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				
POPULATION DESC CABLES	VERIFICATION PKG NO. I-E-CABL			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
7) Bend Radius				
8) Supports				
a				
b				
c				
9) Separation				
a				
b				
10) Splices/Repairs				
a				
b				
c				
d				
11) Terminations				
a				
b				
c				
d				
e				
f1				
f2				
f3				
f4				
f5				
f6				
f7				
g				
h				
i				
j				
k				
l				
12) Tie Downs				
a				
b				
c				

CPP-207.1B, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 2
CABLES	R-E-CABL	
QUALITY INSTRUCTION	☐ REINSPECTION	☐ UNIT 1
QI-015	☒ DOCUMENTATION REVIEW	☐ UNIT 2
EQUIPMENT MARK/TAG NO.		☐ COMMON

ATTRIBUTE		VERIFICATION ACCEPT	VERIFICATION REJECT	VERIFICATION DATE	REMARKS
1.0 Inspector Certification	a				
	b				
	c				
	d				
	e				
	f				
2.1 Raceway Acceptable for pull	a				
	b				
2.2 Pull Tension	a				
	b				
	c				
	d				
	e				
	f				
2.3 Cable Lubricant					

SAMPLE

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

CPP-007.1A, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: CABLES	VERIFICATION PKG NO.: R-E-CABL			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION: ACCEPT	REJECT	DATE	REMARKS
2.4 Deleted				Attribute not documented on original TUGCO inspections. Generic DR issued.
2.5 Defects/Damage				
2.6 Cable Testing a				
b				
2.7 Cable Jacket/ Insulation Removal				
2.8 Bolted Connections a				
b				
c				
2.9 Splices/ Terminals				
2.10 Heat Shrinkable Tubing or Kits				
2.11 Repairs				
2.12 Prefabricated Cables a				
b				
c				

CPP-007.1B, Revision 0

CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC CABLE TRAY	VERIFICATION PKG NO. I-E-CATT-			PAGE 1 OF 2
QUALITY INSTRUCTION QI-016	[X] REINSPECTION			[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW			[ ] UNIT 2 [ ] COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.1 Cable Tray Identification and Color Code				
5.1.1				
5.1.2				
5.1.3				
5.2 Damage				
5.2				
5.3 Configuration				
5.3.1				
5.3.2				
5.3.3				
5.3.4				
5.3.5				
5.3.6				
5.4 Clearance				
5.5 Fire Stops				
PREPARED BY: DISCIPLINE ENGR. / DATE				APPROVED BY: LEAD DISCIPLINE ENGR. / DATE
INSPECTED BY: INSPECTOR / DATE				APPROVED BY: LEAD INSPECTOR / DATE

CHECKLIST
(Cont'd)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC CABLE TRAY	VERIFICATION PKG NO. I-E-CATY-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.6 Separation Criteria				
5.7.1 Location				
5.7.2 Weld Size				
5.7.3 Weld Length				
5.7.4 Fusion				
5.7.5 Craters				
5.7.6 Weld Profiles				
5.7.7 Undercut				
5.7.8 Porosity				
5.7.9 Overlap				
5.7.10 Surface Slag				
5.7.11 Weld Cracks				
5.7.12 Welders ID Symbol	X	X		Record Welders ID

CPP-QU7.1B, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC.	VERIFICATION PKG NO.	PAGE 1 OF 1
Cable Trays	1-F-CATY	
QUALITY INSTRUCTION QI-017	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT NAME/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Cable Tray IR				Record IR No.
2. Tray Cover IR				Record IR No.
3. Welding				
a.				Record Doc. No.
b.				Record Welder ID
c.				

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

CPP-007 (A), Revision 0

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-019 Rev. 4
POPULATION DESC SMALL BORE PIPE SUPPORTS	VERIFICATION PKG NO. I-S-SBPS-	PAGE 1 OF 6
QUALITY INSTRUCTION QI-019	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1 Identification				
2 Location and Orientation				
3 Configuration				
A. Components				
B. Materials	N/A	N/A		Document Review only'
C. Installation				
D. Clearance				
E. Grouting				
F. Baseplates				
G. Edge Distance	N/A	N/A		Information Only
4 Bolting				
A. Engagement				
B. Surface Contact				
C. Richmond Insert				
D. Locking Devices				
E. U-Bolts				
F. Torque				Wrench No. Cal. Due

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

Attachment 6.1
QI-019
Rev. 4

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

PORTATION DESC. SMALL BORE PIPE SUPPORTS	VERIFICATION PKG NO. I-S-SBPS-			PAGE 2 OF 6
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5 Welding				
5.1 Integral				
A. Location				
B. Size				
C. Profile				
D. Reinforcement				
E. Undercut				
F. Surface				
G. Offset				
H. Cracks, Lack of Fusion				
I. Welders ID				
J. Rust				
5.2 Non-Integral				
A. Location				
B. Size				
C. Profile				
D. Reinforcement				
E. Undercut				
F. Surface				
G. Offset				
H. Cracks, Lack of Fusion				
I. Welders ID	N/A	N/A		Document Review Only
6 Concrete Expansion Anchors				
A. Size				
B. Length				
C. Embedment				
D. Spacing				
E. Angularity				
F. Nut Engagement and Bearing				
G. Concrete Damage				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC. SMALL BORE PIPE SUPPORTS | VERIFICATION PKG NO. I-S-SBPS- | PAGE 3 OF 6

ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
7 Component Support Catalog Items				
A. Snubber				
1. Angularity				
2. Jam Nut Torque				
3. Parallelism				
4. Pin-to-Pin Cold Setting				
5. Bearing Spacers				
6. Thread Engagement				
7. Safety Wire				
8. Eye Rod Threads				
9. Eye Rod Thread Engagement				
10. Binding /Offset				
11. Fasteners				
12. Sperical Bearing				
B. Sway Struts				
1. Hardware				
2. Rear Bracket Orientation				
3. Angularity				
4. Sperical Bearing				
5. Eye Rod Threads				
6. Eye Rod Thread Engagement				
7. Eye Rod Jam Nut				
8. Binding				
9. Fasteners				
10. Strut Pin (Vertical)				
11. Bearing Spacers				
12. Torq.of Load Stud				
13. Parallelism				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: SMALL BORE PIPE SUPPORTS	VERIFICATION PKG NO. I-S-SBPS-			PAGE 4 OF 6
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
7 Component Support Catalog Items (Cont'd)				
C. Spring Can/ Constant Support				
1. Size				
2. Travel Stops				
3. Beam Attachment				
4. Rod				
5. Threads				
6. Thread Engagement				
7. Angularity				
8. Fasteners				
D. Low Friction Bearing Plates				
1. Location				
2. Plate type				
3. Lubricant				
4. Corners				
8. Modified Component Support Catalog Items				
A. NPSI Sway Struts				
1. Adjustable Struts(1)				
Weld Size				
Profile				Per 5.5.2 (A)
Reinforcement				Per 5.5.2 (B)
Undercut				Per 5.5.2 (C)
Surface of Weld				Per 5.5.2 (D)
Offset				Per 5.5.2 (E)
Cracks, Lack of Fusion				Per 5.5.2 (F)

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC. SMALL BORE PIPE SUPPORTS	VERIFICATION PKG NO. I-S-SBPS-			PAGE 5 OF 6
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
8. Modified Component Support Catalog Items (Cont'd)				
2. Fixed Sway Struts (ii)				
Weld Size				
Profile				Per 5.5.2 (A)
Reinforcement				Per 5.5.2 (B)
Undercut				Per 5.5.2 (C)
Surface of Weld				Per 5.5.2 (D)
Offset				Per 5.5.2 (E)
Cracks, Lack of Fusion				Per 5.5.2 (F)
B. ITT Grinnell Sway Struts				
Weld Size				
Profile				Per 5.5.2 (A)
Reinforcement				Per 5.5.2 (B)
Undercut				Per 5.5.2 (C)
Surface of Weld				Per 5.5.2 (D)
Offset				Per 5.5.2 (E)
Cracks, Lack of Fusion				Per 5.5.2 (F)
C. Snubber Transition Kits				
Weld Size				
Profile				Per 5.5.2 (A)
Reinforcement				Per 5.5.2 (B)
Undercut				Per 5.5.2 (C)
Surface of Weld				Per 5.5.2 (D)
Offset				Per 5.5.2 (E)
Cracks, Lack of Fusion				Per 5.5.2 (F)

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: SMALL BORE PIPE SUPPORTS	VERIFICATION PKG NO. I-S-SBPS-			PAGE 6 OF 6
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
8. Modified Component Support Catalog Items (Cont'd)				
D. NPSI Forward Bracket Size 1/4 - 10				
Bracket Dimensions(i)				
Bracket Welds(ii)				
Weld Size				
Profile				Per 5.5.2 (A)
Reinforcement				Per 5.5.2 (B)
Undercut				Per 5.5.2 (C)
Surface of Weld				Per 5.5.2 (D)
Offset				Per 5.5.2 (E)
Cracks, Lack of Fusion				Per 5.5.2 (F)
Distortion (iii)				
E. NPSI Forward Bracket Size 35 and 100				
Bracket Dimensions(i)				
Forward Bracket Welds(ii)				
Weld Size				
Profile				Per 5.5.2 (A)
Reinforcement				Per 5.5.2 (B)
Undercut				Per 5.5.2 (C)
Surface of Weld				Per 5.5.2 (D)
Offset				Per 5.5.2 (E)
Cracks, Lack of Fusion				Per 5.5.2 (F)
F. Dual Spring Can Assemblies				
1. Assembly Dimensions(i)				
2. Weld Sizes(ii)				
Weld Size				
Profile				Per 5.5.2 (A)
Reinforcement				Per 5.5.2 (B)
Undercut				Per 5.5.2 (C)
Surface of Weld				Per 5.5.2 (D)
Offset				Per 5.5.2 (E)
Cracks, Lack of Fusion				Per 5.5.2 (F)

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC SMALL BORE PIPE SUPPORTS	VERIFICATION PKG NO.	PAGE 1 OF 2
QUALITY INSTRUCTION QI-020 REV. 1	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Support Package				
2. Drawing Revision				
3. Support Package Review	N/A	N/A		
4. Inspector Certifications				
5. Heat Numbers				
6. Welding				
A. Procedure Application				
B. Weld Material Traceability				
C. Welder Qualifications				
D. Procedure Qualifications				
E. Impact Tests				
i.				
ii.				
iii.				

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

(QP-407-4, Revision 1)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC SMALL BORE PIPE SUPPORTS	VERIFICATION PKG NO.			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Welding (Cont'd)				
iv.				
v.				
F. Heat Treatment				
G. Hold Points				
7. Concrete Expansion Anchors				
A. Hilti Bolt Torque				
B. Bolt Spacing				
C. Rework				
D. Hole Drilling				
E. Setting				
8. NDE Documentation				
9. Specific Items				
A. Torque				
i.				
ii.				
iii.				
iv.				
B. Spring Can Setting				
C. Snubber Adapter thread engagement				
D. Snubber stroke				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-021 Rev. 2
POPULATION DESC Piping System Bolted Joints/Material	VERIFICATION PKG NO. I-M-PBOM-	PAGE 1 OF 1
QUALITY INSTRUCTION QI-021	☒ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☐ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1) Bolt/Screw/Cap Screw Diameter				
2) Nut Height				
3) Bolt/Stud/Cap Screw Thread Engagement				
4A) Bolt/Stud/Cap Screw and Nut Material				
4B) Gasket/Dielectric Type				
5) Flange Rating and Type				
6) Bolted Joint Completeness				
7) Gaske Coverage				

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-022 Rev. 1 Change Notice 002
POPULATION DESC Piping System Bolted Joints/Material	VERIFICATION PKG NO. R-M-PBOM-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-022	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1) Bolt/Stud/Cap Screw Verification 1A) Q.C. Verification/Sign Off 1B) Bolt/Stud/Cap Screw Nut Certification 1" Nominal Diameter and Smaller 1C) Bolt/Stud/Cap Screw and Nut Color Code Verification-1" Nominal Diameter and Smaller 1D) Bolt/Stud/Cap Screw and Nut Certification-Greater than 1" Nominal Diameter				
2) Deleted				
3) Deleted				
4) Alignment Verification				
5) Deleted				

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-022 Rev. 1 Change Notice 001
POPULATION DESC Piping System Bolted Joints/Material	VERIFICATION PKG NO. R-M-PBOM-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6) Deleted				
7) QC Inspector Certification				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC HVAC EQUIPMENT INSTALLATION	VERIFICATION PKG NO. I-M-HVIN-	PAGE 1 OF 3
QUALITY INSTRUCTION QI-023	☒ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☐ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Identification				
2. Location				
3. Orientation				
4. Duct Connections a. Bolt Tension				
b. Gasket 1. Continuity				
2. Gaps				
c. Thread Engagement				
5. Flange Size				

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

POPULATION DESC HVAC EQUIPMENT INSTALLATION	VERIFICATION PKG NO. I-M-HVIN-			PAGE → 2 OF → 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Fans a. Fan Wheel Clearance				
b. Flexible Connections 1. Configuration				
2. Connections				
c. (Sub-Attribute Deleted)				
d. Axial Fans				
7. Fire Dampers and Penetrations a. Configuration				
b. Retaining Angles 1. Size				
2. Dimensions				
c. Fire Damper/ Sleeve Attachment				

POPULATION DESC HVAC EQUIPMENT INSTALLATION	VERIFICATION PKG NO. I-M-HVIN-			PAGE → OF →
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
8. Modulating and Isolation Dampers a. Configuration 1. Flange Bolt Spacing				
2. Actuator Mounting Bracket				
b. Actuator				
9. Gravity Dampers a. Free Movement				
b. Counterweight				
10. Air Flow Monitoring Stations a. Instrumentation Connection				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-025 Rev. 4
POPULATION DESC LARGE BORE PIPING CONFIGURATION	VERIFICATION PKG NO. I-M-LBCO			PAGE 1 OF 3
QUALITY INSTRUCTION QI-025	[X] REINSPECTION			[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW			[ ] UNIT 2 [ ] COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Piping Orientation a. Component Sequence				
b. Centerline Elevation				
c. N-S,E-W Location				
d. Linear Dimensions				
e. Branch Connections				
f. Piping Clearances				
g. Nominal Pipe Size				
h. Slope				
i. Mechanical Joint Location				
2. Valves a. Elevation				
b. Stem Angle				
c. Valve Identification Number				
d. Flow Direction				

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

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC LARGE BORE PIPING CONFIGURATION	VERIFICATION PKG NO. I-M-LBCO			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
3. Eccentric Reducers a. Orientation				
4. Deleted				
5. Orifice/Flow Element Assemblies a. Flange Tap Orientation				
b. Location				
c. Identification				
d. Flow Direction				
6. Expansion Joints a. Identification				
b. Tie Bars				
c. Dimensions				
7. Screwed Joints a. Deleted				
b. Deleted				
c. Joint Sealant				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC LARGE BORE PIPING CONFIGURATION	VERIFICATION PKG NO. I-M-LBCO			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
8. Strainers a. Identification No.				
b. Flow Direction				
9. Moment Restraints a. Identification				
10. Elbows a. Identification				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-026
Rev. 3

POPULATION DESC. SMALL BORE PIPING CONFIGURATION	VERIFICATION PKG NO. I-M-SBCO-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-026	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Piping Orientation				
a. Component Sequence				
b. Centerline Elevation				
c. N-S,E-W Location				
d. Linear Dimensions				
e. Branch Connections				
f. Piping Clearances				
g. Nominal Pipe Size				
h. Slope				
i. Mechanical Joint Location				
2. Valves				
a. Elevation				
b. Stem Angle				
c. Valve Identification No.				
d. Flow Direction				

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-026
Rev. 3

POPULATION DESC SMALL BORE PIPING CONFIGURATION	VERIFICATION PKG NO. I-M-SBCO-			PAGE __ OF ___ 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
3. Eccentric Reducers a. Orientation				
4. Deleted 5. Orifice/Flo-Element Assemblies a. Flange Tap Orientation				
b. [illegible]cation				
c. Identification				
d. Flow Direction				
6. Expansion Joints a. Identification				
b. Tie Bars				
c. Dimensions				
7. Screwed Joints a. Deleted				
b. Deleted				
c. Joint Sealant				
8. Strainers a. Identification No.				
b. Flow Direction				
9. Moment Restraints a. Identification				
10. Elbows a. Identification				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC LARGE BORE PIPE SUPP-RIGID	VERIFICATION PKG NO. I-S-LBSR-_____	PAGE 1 OF 3
QUALITY INSTRUCTION QI-027	[X] REINSPECTION [ ] DOCUMENTATION REVIEW	[ ] UNIT 1 [ ] UNIT 2 [ ] COMMON
EQUIPMENT MARK/TAG NO.		

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Identification				
2. Location and Orientation				tn=
3. Configuration				
A. Components				
B. Materials	N/A	N/A		For information only
C. Installation				
D. Clearance				
E. Grouting of Baseplates/Floors				
F. Grouting of Baseplates/ Walls & Ceilings				
4. Bolting				
A. Engagement				
B. Surface Contact				
C. Richmond Insert				
D. Locking Devices				
E. U-Bolts				
F. Torque				
G. Edge Distance	N/A	N/A		For information only
H. Grout-In Anchors				
5. Integral Attachment Welds				
A. Location				
B. Size				
C. Profile				
D. Reinforcement				
E. Undercut				
F. Surface Condition				u=

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

VERIFICATION DESC	VERIFICATION PKG NO.	PAGE 2 OF 3
LARGE BORE PIPE SUPP-RIGID	I-S-LBSR-____	

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5. Integral Attachment Welds (Cont'd)				
G. Offsets				
H. Cracks/Fusion				
I. Welder ID	N/A	N/A		For Information Only
J. Rust				
6. Support Welds(NF)				
A. Location				
B. Size				
C. Profile				
D. Reinforcement				
E. Undercut				
F. Surface				
G. Offsets				
H. Cracks/Fusion				
I. Welder ID	N/A	N/A		For Information Only
7. Concrete Expansion Anchors				
A. Size/Length				
B. Embedment Length				
C. Bolt Spacing				
D. Angularity				
E. Concrete Damage				
F. Nut Engagement/ Bearing				
8. Component Support Catalog Items				
A. Sway Strut				
1. Hardware				
2. Rear Bracket Orientation				
3. Angularity				
4. Spherical Bearing				
5. Eye Rod Thread				
6. Eye Rod Thread Engagement				
7. Eye Rod Jam Nut				
8. Binding				
9. Fasteners				
10. Bearing Spacer(s) /Vertical Load Pin				
11. Bearing Spacer(s)				
12. Torque				

(FORM NO. 3, Revision 1)

SEISMIC PIPE RESPONSE TEAM
CHECKLIST

APPLICATION DESC: LARGE BORE PIPE SUPP-RIGID	VERIFICATION PKG NO.: I-S-LBSR-____			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
8. Component Support Catalog Items (Cont'd) 13. Clamp Halves				
B. Low Friction Bearing Plate 1. Location				
2. Plate Type				
3. Lubricant				
4. Corners				
9. Modified Component Support Catalog Items A. NPSI Sway Struts 1. Adjustable Struts(i)				
Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6
2. Fixed Sway Struts(ii) Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6
B. ITT Grinnell Sway Struts Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC LARGE BORE PIPE SUPP-RIGID	VERIFICATION PKG NO. R-S-LBSR-_____	PAGE 1 OF 3
QUALITY INSTRUCTION QI-028	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Support Package				
2. Drawing Revision				
3. Support Package Review	N/A	N/A		
4. Inspector Certifications				
5. Heat Numbers				
6. Welding				
A. Procedure Application				
B. Weld Material Traceability				
C. Welder Qualifications				
D. Procedure Qualifications				

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

POPULATION DESC LARGE BORE PIPE SUPP-RIGID	VERIFICATION PKG NO. R-S-LBSR-_____			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Welding (Cont'd)				
E. Impact Tests				
a. _____				
b. _____				
c. _____				
d. _____				
e. _____				
F. Heat Treatment				
G. Hold Points				
7. Concrete Expansion Anchors				
A. Hilti Bolt Torque				
1. _____				
2. _____				
B. Bolt Spacing				
C. Rework				
D. Hole Drilling				
E. Setting				
8. NDE Documentation				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPP-RIGID	VERIFICATION PKG NO. R-S-LBSR-_____			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5. Specific Items A. Torque 1. _____ 2. _____ 3. _____				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN	PAGE 1 OF 8
QUALITY INSTRUCTION QI-029	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Identification				
2. Location and Orientation				tn=
3. Configuration				
A. Components				
B. Materials	N/A	N/A		(For Documentation Review Only)
C. Installation				
D. Clearance				
E. Grouting for Baseplates/Floors				
F. Grouting for Baseplates/Walls and Ceilings				
4. Bolting				
A. Engagement				
B. Surface Contact				
C. Richmond Insert				
D. Locking Devices				

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

CPP-307.1A, Revision 1

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN-			PAGE 2 OF 8
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
4. Bolting (Cont'd)				
E. U-Bolts				
F. Torque				
G. Edge Distance	N/A	N/A		(For Information Only)
H. Grout-In Anchors				
5. Integral Attachment Welds				
A. Location				
B. Size				
C. Profile				
D. Reinforcement				
E. Undercut				u=
F. Surface Condition				
G. Offsets				
H. Cracks/Fusion				
I. Welder ID	N/A	N/A		(For Information Only
J. Rust				
6. Support Welds (NF)				
A. Location				
B. Size				
C. Profile				
D. Reinforcement				
E. Undercut				
F. Surface				
G. Offsets				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN-			PAGE 3 OF 8
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Support Welds (Cont'd) H. Cracks/Fusion				
I. Welder ID	N/A	N/A		(For Information Only)
7. Concrete Expansion Anchors				
A. Size/Length				
B. Embedment Length				
C. Bolt Spacing				
D. Angularity				
E. Concrete Damage				
F. Nut Engagement/ Bearing				
8. Component Support Catalog Items A. Snubber				
1. Angularity				
2. Jam Nut Torque				
3. Parallelism				
4. Pin-to-Pin/ Cold Setting				
5. Bearing Spacers				
6. Thread Engagement				
7. Safety Lock Wire				
8. Eye Rod Threads				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN			PAGE 4 OF 8
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
8A. Snubber (Cont'd) 9. Eye Rod Thread Engagement				
10. Binding/Offset				
11. Fasteners				
12. Spherical Bearing				
B. Struts 1. Hardware				
2. Rear Bracket Orientation				
3. Angularity				
4. Spherical Bearing				
5. Eye Rod Threads				
6. Eye Rod Thread Engagement				
7. Eye Rod Jam Nut				
8. Binding/Offset				
9. Fasteners				
10. Bearing Spacers Vertical Load Pin				
11. Bearing Spacer(s)				
12. Torque of Load Stud				
13. Parallelism				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN			PAGE 5 OF 8
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
C. Spring/Can Constant Support 1. Size				
2. Travel Stops				
3. Beam Attachment				
4. Support Rod				
5. Threads				
6. Thread Engagement				
7. Angularity				
8. Fasteners				
D. Low Friction Bearing Plates 1. Location				
2. Plate Type				
3. Lubricant				
4. Corners				
9. Modified Component Support Catalog Items				
A. NPSI Sway Struts 1. Adjustable Struts (i) Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN			PAGE 6 OF 8
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
9. Modified Component Support Catalog Items (Cont'd)				
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6
2. Fixed Sway Struts (ii)				
Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6
B. ITT Grinnell Sway Struts				
Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6

[illegible] Revision 4

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN			PAGE 7 OF 8
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
9. Modified Component Support Catalog Items (Cont'd) C. Snubber Transition Kits Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6
D. NPSI Forward Bracket Size 1/4 - 10 1. Bracket Dimensions (i)				
2. Bracket Welds (ii) Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6
Distortion (iii)				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID (LBSN)	VERIFICATION PKG NO. I-S-LBSN			PAGE 8 OF 8
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
9. Modified Component Support Catalog Items (Cont'd) E. NPSI Forward Bracket Size 35 and 100 Bracket Dimensions(i)				
Forward Bracket Welds (ii)				
Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6
F. Dual Spring Can Assemblies 1. Assembly Dimensions(i)				
2. Weld Sizes (ii)				
Weld Size				
Profile				Per 5.6.1
Reinforcement				Per 5.6.2
Undercut				Per 5.6.3
Surface of Weld				Per 5.6.4
Offset				Per 5.6.5
Cracks, Lack of Fusion				Per 5.6.6

Revision 0

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID	VERIFICATION PKG NO. R-S-LBSN-_____	PAGE 1 OF 3
QUALITY INSTRUCTION QI-030 REV. 0	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Support Package				
2. Drawing Revision				
3. Support Package Review	N/A	N/A		
4. Inspector Certifications				
5. Heat Numbers				
6. Welding				
A. Procedure Application				
B. Weld Material Traceability				
C. Welder Qualifications				
D. Procedure Qualifications				

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

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID	VERIFICATION PKG NO. R-S-LBSN-_____			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
E. Impact Tests a. _____ b. _____ c. _____ d. _____ e. _____				
F. Heat Treatment				
G. Hold Points				
7. Concrete Expansion Anchors A. Hilti Bolt Torque 1. _____ 2. _____				
B. Bolt Spacing				
C. Rework				
D. Hole Drilling				
E. Setting				
8. NDE Documentation				
9. Specific Items A. Torque 1. _____ 2. _____ 3. _____ 4. _____				

CPT-007-LB, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC LARGE BORE PIPE SUPPORTS NON-RIGID	VERIFICATION PKG NO. R-S-LBSN-_____			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
9. Specific Items (Cont'd) B. Spring Can Setting				
C. Snubber Adapter thread engagement				
D. Snubber stroke				

CHECKLIST

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC Reinspect. of Cont. Liner & Tank S.S. Liner	VERIFICATION PKG NO.	PAGE 1 OF 2
QUALITY INSTRUCTION QI-031	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☐ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
A 1 Base Material Local Contours				
a. Max 1 inch gap between 6-foot template and plate				
b. Max 1 1/2 inch gap between 6 foot template and plate across weld seam				
c. Max 3/8 inch gap between 15 inch template and plate				
d. Max 3/4 inch deviation from 10 foot straight edge				
A 2 Weld seam offset				
a. Max 3/32 inch offset for 3/8 inch shell plate				
b. Max 1/8 inch offset for 1/2 inch dome plate				

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

CHECKLIST (cont'd)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC Reinspect. of Cont. Liner & Tank S.S. Liner	VERIFICATION PKG NO.			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
c. Offset faired at least 3-to-1				
A 3 Weld Seam Surface				
a. Free of coarse ripples or grooves, overlaps, or abrupt ridges or valleys				
b. Undercut does not exceed 1/32 inch				
c. Flush with base material or has uniform crown. Reinforcement does not exceed 3/32 inch at each face.				
B 1 Tack SST Liners Reinspection				
a. Weld surface free of coarse ripples or grooves, overlaps, and abrupt ridges or valleys.				
b. Undercut does not exceed 1/32 inch				
c. Weld surface is flush with base material or has uniform crown. Reinforcement height does not exceed 3/32 inch at each face.				
d. Exposed surface of S.S. liner is free of rust.				

CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST		
POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 2
QUALITY INSTRUCTION QI-032	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.1 Record Drawing a Joint Identification				
b Welder Identification				
5.2 Material Traceability a Material Certified as SA-537 Cl.2/A240-304L				
b Material I.D. is verified by inspection				
5.3 Welding a Weld procedure identified				
b Finished weld initialed and dated				
c Weld procedure applicable to SA-537 CL-2 (GR-B) (containment only)				
d Weld procedure approved by Gibbs & Hill				
e Weld Complete Column initialed and dated				

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

CPP-NO7.1A, Revision 0

CHECKLIST (cont'd)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC	VERIFICATION PKG NO.			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.4 Welders/welding Operators Qualification a Valid for period of welding				
b Valid for weld Procedure				
5.5 Nondestructive Examination (NDE) a NDE report traceability to weld joint				
b NDE Report traceability to NDE procedure				
c NDE evaluator signed off				
d Radiographic film evaluated and signed off.				
e Vacuum Box Test				
5.6 NDE Operators/ Inspector Certification a Certification valid for period of NDE				
b Certification valid for NDE Process/Inspection				
c Operator/Evaluator is a Level II				

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CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC Reinspection of Fuel Bldg. Fuel Pool Liners	VERIFICATION PKG NO.			PAGE 1 OF 1
QUALITY INSTRUCTION QI-033	[X] REINSPECTION			[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW			[ ] UNIT 2 [ ] COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Weld Surface Reinspection a. (Not Required)				
b. Weld surface free of irregularities such as serrations, ridges, crevices, pinholes				
c. Surface is free of rust/corrosion				

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

CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC FUEL BLDG. POOL LINERS	VERIFICATION PKG NO.			PAGE 1 OF 3
QUALITY INSTRUCTION QI-034	☐ REINSPECTION			☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW			☐ UNIT 2 ☐ COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.1 Liner Material a. Liner Plate Material is Type 304L				
b. Bulk Material issue from Warehouse is Type 304L				
5.2 Welding a. Welder symbol				
b. Weld Filler Material Log (WFML) number				
c. Weld procedure number				
d. Final V.T. of surface preparation initialled and dated				
e. Repair process sheet welder symbol				
f. Weld & Repair weld procedure valid and approved				

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

CHECKLIST (Cont.)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC FUEL BLDG. POOL LINERS	VERIFICATION PKG NO.			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.2 Welding (Cont'd) g. Issue of WPML or WPQR per Log, and valid for weld procedure				
5.3 Welder/welding Operator qualifications a. Valid for period of performing welds				
b. Valid for the weld procedure				
5.4 Non-destructive Examination (NDE) a. Final P.T. & V.B. signed and dated				
b. Weld number identified				
c. NDE procedure identified				
d. NDE results are signed and dated				
e. Repair weld is identified				
f. Repair NDE procedures are identified				
g. Repair NDE results signed and dated				

CHECKLIST (Cont.)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC FUEL BLDG. POOL LINERS	VERIFICATION PKG NO.			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.5 NDE Operator Qualification * Qualification valid for the period of NDE * Qualification valid for NDE procedure * Operator is a Level II				
5.6 Stud Welding a. Pre-Production Test 1. Weld Procedure Number				
2. Bend Test				
b. Production Test 1. Stud Size				
2. After Weld Length Result				
3. Visual Inspection for Welding & Bend Tests				
5.7 Stud Welding Inspector Certification * Inspector Certification Valid for Period of Stud Welding * Inspector is Certified Level II				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-035 Rev. 2
POPULATION DESC HVAC DUCT SUPPORTS	VERIFICATION PKG NO. I-S-HVDS	PAGE 1 OF 4
QUALITY INSTRUCTION QI-035	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Support Location 1A. Along the duct axis				
1B. Support Clearance Check	N/A	N/A		For Information Only
2. Support Frame Configuration and Orientation 2A. General Configuration				
2B. Member Orientation				
2C. Member Size				
2D. Member Lengths and Dimensions				
2E. Minimum Edge Distances (Steel Members)				
2F.1 Attachments within "Cantilever" regions				
2F.2 Attachment Locations on "Strip" Plates				
2F.3 Spacing of				

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

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-035
Rev. 2

POPULATION DESC. HVAC DUCT SUPPORTS	VERIFICATION PKG NO. I-S-HVDS			PAGE 2 OF 4
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
2G. Support Provided by Existing Structure				
2H. Attachment to Duct Equipment				
2J. Attachment of Other Supports				
2K. Duct Size				
3. Welding 3A. Weld Location				
3B. Weld Size				
3C. Weld Length				
3D. Fusion				
3E. Craters				
3F. Weld Profiles				
3G. Undercut				
3H. Porosity				
3J. Overlap				
3K. Surface Slag				
3L. Cracks				
3M. Welder ID symbol	N/A		N/A	For Information Only
4. Concrete Expansion Anchors 4A. Bolt Size and Number 4A.1 Bolt Diameter				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-035
Rev. 2

POPULATION DESC HVAC DUCT SUPPORTS	VERIFICATION PKG NO. I-S-HVDS			PAGE 3 OF 4
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
4A.2 Bolt Type, Length and Quantity				
4B. Embedment				
4C. Bolt Spacing 4C.1 Hilti to Hilti				
4C.2 Hilti to Richmond Bolts, Concrete Edges and Abandoned Bolts/Holes				
4C.3 Hilti to Embedded Plate Edges				
4D. Angularity				
4E. Nut Engagement and Bearing 4E.1 Nut Engagement				
4E.2 Sloped Surfaces				
4E.3 Welding Hilti Bolts				
4E.4 Nut Bottoming				
5. Richmond Screw Anchors 5A. Minimum Thread Engagement				
5B. Bolt Tightness				
5C. Insert Spacing				
5D. Sloped Surface				
5E. Richmond Bolt Material	N/A	N/A		For Information Only

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-035 Rev. 2
POPULATION DESC HVAC DUCT SUPPORTS	VERIFICATION PKG NO. I-S-HVDS			PAGE 4 OF 4
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Miscellaneous Bolting				
6A. Bolt Size				
6B. Bolt Material Type				
6C. Thread Engagement				
6D. Washers				
6E. Torque/Tightness				
6F. Sloped Surface				
7. Touch-up Galvanizing	N/A	N/A		For Information Only

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-036 Rev. 2
POPULATION DESC HVAC DUCT SUPPORTS	VERIFICATION PKG NO. R-S-HVDS-			PAGE 1 OF 2
QUALITY INSTRUCTION QI-036	☐ REINSPECTION			☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW			☐ UNIT 2 ☐ COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5A. ERC Reinspection Drawings 5A.1 Duct Support Detail Drawing	NA	NA		For Information Only
5A.2 Duct Support Location Plan (Layout) Drawing	NA	NA		For Information Only
5B. Duct Support Inspector Certifications				
5C. Weld Procedure Application 5C.1 Base Material				
5C.2 Filler Material				
5D. Welder Qualification				
5E. Weld Fit-up Inspection				

PREPARED BY: DISCIPLINE ENGR. DATE	APPROVED BY: LEAD DISCIPLINE ENGR. DATE
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Attachment 6.1
QI-036
Rev. 2

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC HVAC DUCT SUPPORTS	VERIFICATION PKG NO. R-S-HVDS-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5F. Hilti Bolt Torque 5F.1 Torque Wrench Number				
5F.2 Torque Wrench Calibration				
5F.3 Torque Value				
5G. Abandoned Holes Covered by Duct Support Members - Spacing				
5H. Cut Rebar				
5J. Resetting of Hilti Bolts				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.2 QI-036 Rev. 2
POPULATION DESC HVAC DUCT SUPPORTS	VERIFICATION PKG NO. R-S-HVDS-200	PAGE 1 OF 2
QUALITY INSTRUCTION QI-036	☐ REINSPECTION	☐ X UNIT 1
EQUIPMENT MARK/TAG NO. DUCT SUPPORT MATERIAL TRACEABILITY	☐ X DOCUMENTATION REVIEW	☐ X UNIT 2 ☐ X COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order No.: _____				
5K.1 Material Specification				
5K.2 CMTR or C of C				
5K.3 Inspector's Certification				
Purchase Order No.: _____				
5K.1 Material Specification				
5K.2 CMTR or C of C				
5K.3 Inspector's Certification				
Purchase Order No.: _____				
5K.1 Material Specification				
5K.2 CMTR or C of C				
5K.3 Inspector's Certification				

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 6.2 QI-036 Rev. 2
POPULATION DESC HVAC DUCT SUPPORTS	VERIFICATION PKG NO. R-S-HVDS-200			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order No.:				
5K.1 Material Specification				
5K.2 CMTR or C of C				
5K.3 Inspector's Certification				
Purchase Order No.:				
5K.1 Material Specification				
5K.2 CMTR or C of C				
5K.3 Inspector's Certification				
Purchase Order No.:				
5K.1 Material Specification				
5K.2 CMTR or C of C				
5K.3 Inspector's Certification				
Purchase Order No.:				
5K.1 Material Specification				
5K.2 CMTR or C of C				
5K.3 Inspector's Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 3
HVAC Ducts and Plenums	I-M-DUPL-	
QUALITY INSTRUCTION QI-039	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Sheet Metal Duct a. Elevation b. Location Perpendicular to Air Flow c. Area d. Length e. Duct Gage f. Reinforcing Angle Size g. Reinforcing Angle Spacing h. Companion Angle Size i. Longitudinal Seam j. Tie Rod Spacing k. Tie Rod Diameter l. Gasket m. Nuts and Bolts				
2. Wall Penetration a. Minimum Length b. Maximum Extension c. Gasket d. Nuts and Bolts				
3. Welding a. Location b. Weld Size c. Length d. Fusion e. Craters				

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

POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. I-M-DUPL-			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
f. Weld Profiles g. Undercut h. Porosity i. Overlap j. Surface Slag k. Cracks l. Touch-up Galvanizing				
4. Splitter Damper a. Installation b. Nuts and Bolts c. Locked in Place				
5. Extractor a. Installation b. Angle Size c. Bolts				
6. Turning Vane a. Installation b. Geometry c. Gage				
7. Grille, register and Diffuser a. Location b. Installation c. Gaskets d. Nuts and Bolts				
8. Volume Damper a. Installation b. Gaskets c. Nuts and Bolts d. Locked in Place				
9. Access Door a. Installation b. Gasket c. Nuts and Bolts				
10. Instrument Test Holes a. Caps b. Gasket c. Bolts				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. I-M-DUPL			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
11. Tubing Connection a. Installation b. Nuts and bolts				
12. Pipe Connection a. Pipe Size b. Pipe Length				
13. Instrument Mounting a. Installation b. Mounting Bracket c. Nuts, Bolts and Washers				
14. Plenums a. Location b. Sheet Metal Gage c. Reinforcing Angle Size d. Reinforcing Angle Spacing e. Gasket f. Nuts and Bolts				
15. Flexible Connection a. Location b. Companion Angle Size c. Nuts, Bolts and Washers d. Misalignment				
16. Concrete Expansion Anchors a. Size and Number b. Embedment c. Bolt Spacing d. Angularity e. Concrete Damage f. Nut Engagement and Bearing				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-040	☐ REINSPECTION ☒ DOCUMENTATION REVIEW	☐ UNIT 1 ☐ UNIT 2 ☐ COMMON
EQUIPMENT MARK/TAG NO. BSC Dwg. 2323-M BSC Subsystem		

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Pressure Test				
2. Material Gage				
3. Turning Vane Installation				
4. Weld Procedure Application (Ducts and Flexible Connections)				
a. Base Material				
b. Filler Metal Classification				
5. Weld Procedure Application (Plenums)				
a. Welding Procedure				
b. Base Material				
c. Filler Metal Classification				

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-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Welder Qualification				
7. Inspector's Certification				
a. Welding				
b. Pressure Test				
c. Material Gage				
d. Turning Vane Installation				
8. Material Traceability*				
9. Welding				
10. Touch-up Galvanizing				

*Note: Material Traceability for sheet metal, structural angles and nuts and bolts are found in R-M-DUPL-150 (see checklist Attachment 6.2), R-M-DUPL-151 (see checklist Attachment 6.3), and R-M-DUPL-152 (see checklist Attachment 6.4) respectively.

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.2 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-150	PAGE 1 OF 3
QUALITY INSTRUCTION QI-040	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO. Sheet Metal Material Traceability	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

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

POPULATION DESC	VERIFICATION PKG NO.	PAGE 2 OF 3
HVAC Ducts and Plenums	R-M-DUPL-150	

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.2 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-150			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.3 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-151	PAGE 1 OF 3
QUALITY INSTRUCTION QI-040	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO. Structural Angles Material Traceability	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

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INSPECTED BY:	APPROVED BY:
INSPECTOR DATE	LEAD INSPECTOR DATE

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.3 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-151			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.3 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-151			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.4 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-152	PAGE 1 OF 3
QUALITY INSTRUCTION QI-040	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO. Nuts and Bolts Material Traceability	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

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 6.4 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-152			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.4 QI-040 Rev. 1
POPULATION DESC HVAC Ducts and Plenums	VERIFICATION PKG NO. R-M-DUPL-152			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
Purchase Order Number: _____ _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				
Purchase Order Number: _____ 1. Material 2. CMTR or COC 3. Inspector's Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 3
Field Fabricated Tanks	I-M-FFTA-	
QUALITY INSTRUCTION QI-041	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2
		[ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Name Plate				
2. Shell Top Angle				
3. Anchor Bolt Ring				
4. Anchor Bolt Chairs				
5. Anchor Bolt Tightness				
6. Out of Roundness				
7. Longitudinal Weld Seam Offsets				
8. Bottom Plate Weld Seam Offset				
9. Nozzle Size and Type				
A. Size				
B. Type				
10. Nozzle Location				
11. Nozzle Insert Reinforcement Plate				
12. Nozzle and Manhole Reinforcing Pads				

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

POPULATION DESC Field Fabricated Tanks	VERIFICATION PKG NO. I-M-FFTA-			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
13. Seismic Restraint				
A. Installation				
B. Elevation				
C. Weld				
14. Internal Pipe				
A. Arrangement				
B. Dimensions				
15. Welds				
A. Configuration Size and Profile				
B. Butt Weld Reinforcement				
C. Undercut				
D. Surfaces of Welds				
E. Offset of Butt Welds				
F. Fairing of Offsets				
G. Cracks, Lack of Fusion and Crater Cracks				
H. Indications				
16. Base Materials				
A. Material Identification				
B. Material Defects				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC Field Fabricated Tanks	VERIFICATION PKG NO. I-M-FFTA-			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
17. Weld Rust				
18. Material Rust				
19. Grout				

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 2
FIELD FABRICATED TANKS	R-M-FFTA-	
QUALITY INSTRUCTION QI-042	☐ REINSPECTION ☑ DOCUMENTATION REVIEW	☐ UNIT 1 ☐ UNIT 2 ☐ COMMON
EQUIPMENT MARK/TAG NO.		

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Dimensional Verification				
A. Tank Diameter				
B. Shell Diameter				
C. Vessel Head Diameter				
D. Temporary Foundation Level				
E. Tank Bottom Crown				
2. Hydrostatic Test				
A. Horizontal Tank				
B. Flat Bottom Tank				
3. Record Drawings				
A. Joint Identification				
B. Welders Identification				
C. Welding Procedure Specification				
D. Record Drawing Table Signoffs				

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

POPULATION DESC: FIELD FABRICATED TANKS	VERIFICATION PKG NO.: R-M-FFTA-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
3. (cont'd) E. NDE Procedures Identified				
4. Weld Materials				
5. Procedure Approval				
6. Welder and Welding Operator Qualifications				
7. Nondestructive Examinations A. Weld Joint Identification				
B. NDE Procedure/Report Identification				
C. Reviewer Certification				
8. Nondestructive Examination Personnel Certifications A. NDE Personnel Certification				
B. Vision Test Record				
C. NDE Certification				
9. Seismic Restraint As-Built Dimensions				
10. Material Verification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC CONCRETE PLACEMENT	VERIFICATION PKG NO.	PAGE 1 OF 2
QUALITY INSTRUCTION QI-043	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Location				
A. Walls, Columns, Piers, Pedestals, Curbs, Pads				
B. Slabs				
C. Beams				
2. Size				
A. Walls, Curbs, Slabs				
B. Columns, Piers, Pedestals				
C. Beams				
3. Surface Inspection				
A. Walls, Curbs, Columns, Piers, Pedestals, Pads				
B. Slabs, Beams				

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

CPP-107.1A, Revision 0

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC CONCRETE PLACEMENT	VERIFICATION PKG NO.			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
4. Cored Holes				
5. Cracks				
6. Patches				
7. Anchor Bolts A.				
B.				
C.				
8. Embedded Plates and Structural Shapes				

CP-[illegible] IR, Revision 0

CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC Concrete Placement	VERIFICATION PKG NO.			PAGE 1 OF 3
QUALITY INSTRUCTION QI-044	☐ REINSPECTION ☒ DOCUMENTATION REVIEW			☐ UNIT 1 ☐ UNIT 2 ☐ COMMON
EQUIPMENT MARK/TAG NO.				
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
1. Design Mix, Concrete Batching & Conveying A. Mixed Design Cards-Sign-Off				
B. Mixed Design Cards-Specified By The Field				
C. Mixed Design Cards-Proportions				
D. Batch Plant Scales				
E. Batch Ticket				
F. Truck Mixers-Revolutions				
G. Truck Discharge Time				
2. Forms, Construction Joints A. Installation of Form Work				
B. Installation of Construction Joints				
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

CHECKLIST (Cont'd)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC Concrete Placement	VERIFICATION PKG NO.			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
C. Seismic Air Gap				
D. Pour Card Sign-Off				
3. Rebar, Cadwelds, Waterstops, Anchor Bolts, Embedded Plates A. Rebar-Size, Spacing, Concrete Cover & Proper Installation				
B. Cadweld/Lap Splices				
C. Anchorage Length of Dowels				
D. Anchor Bolts-Type				
E. Installation of Waterstops				
F. Installation of Embedment				
4. Depositing and Consolidation A. Placement Rate				
B. Placement Lift				
C. Placement Technique				
D. Placement Grade				
E. Vibrators Speed				
F. Vibrator Conveyance				
G. Vibrator Penetration				

CPP-007.1B, Revision 0

CHECKLIST (Cont'd)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC Concrete Placement	VERIFICATION PKG NO.			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5. Attribute Deleted				
6. In-Process Concrete Tests				
A. Air Content				
B. Slump				
C. Concrete Temperature				
7. Curing				
A. Curing Requirements Properly Addressed				
B. Curing Log Initialed and Dated				
8. Compressive Strength Test Results				
A. Laboratory Cured Cylinders				
B. Field Cured Cylinders				
9. Inspection Reports				
10. Inspection and Test Personnel Certifications				

CP-007.12, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC STRUCTURAL STEEL	VERIFICATION PKG NO. I-S-STEL	PAGE 1 OF 6
QUALITY INSTRUCTION QI-045	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
A Member	N/A Information Header			
A1) Location				
A2) Size				
A3) Material Ident		N/A		Information Only Attachment 6.2
A4) Length				
A5) Orientation				
A6) Alterations	N/A Information Header			
a) Location				
b) Size				
c) Limit of Alteration				
d) Re-entrant Corners				
e) Cuts and Holes				

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

POPULATION DESC: STRUCTURAL STEEL	VERIFICATION PKG NO.: I-S-STEL			PAGE 2 OF 6
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
B Connection	N/A Information Header			
B1) Location				
B2) Size				
B3) Orientation				
B4) Welds	N/A Information Header			
a) Location				
b) Weld Size				
c) Weld Length				
d) Fusion				
e) Craters				
f) Weld Profiles				
g) Undercut				
h) Porosity				
i) Overlap				
j) Surface Slag				
k) Cracks				
l) Welder ID Symbol		N/A		Information Only Attachment 6.3
B5) Structural Bolting	N/A Information Header			
a) Bolt Diameter				
b) Material				
c) Quantity				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: STRUCTURAL STEEL	VERIFICATION PKG NO.: I-S-STEL			PAGE 3 OF 6
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
B5) Structural Bolting (Cont'd)				
d) Washers				
e) Beveled Washers				
f) Hole Coverage				
g) Jam Nuts				
h) Thread Engagement				
i) Edge Distance				
j) Tightening				
k) Bearing				
l) Spacing				
m) Configuration				
B6) Richmond Inserts	N/A Information Header			
a) Thread Engagement				
b) Tightness				
c) Washer				
d) Location				
e) Edge Distance				
B7) Concrete Expansion Anchors	N/A Information Header			
B7.1 Size and Number				
a) Diameter				
b) Type, Length, Number				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: STRUCTURAL STEEL	VERIFICATION PKG NO.: I-S-STEL			PAGE 4 OF 6
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
B7.2 Embedment Length				
B7.3 Bolt Spacing	N/A Information Header			
a) Center to Center Spacing				
b) Hilti to Richmond				
c) Hilti to Embed Plates				
B7.4 Angularity				
B7.5 Concrete Damage				
B7.6 Nut Engagement and Bearing	N/A Information Header			
a) Nut Engagement				
b) Bearing				
c) Bottom-out				
d) Weld				
B7.7 Configuration	N/A Information Header			
a) Location				
b) Edge Distance				
B8) Baseplates				
B9) Grout				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: STRUCTURAL STEEL	VERIFICATION PKG NO.: I-S-STEL			PAGE 5 OF 6
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
C) Field Installed Details	N/A Information Header			
C1) Location				
C2) Size				
C3) Orientation				
C4) Weld	N/A Information Header			
a) Location				
b) Weld Size				
c) Weld Length				
d) Fusion				
e) Craters				
f) Weld Profiles				
g) Undercut				
h) Porosity				
i) Overlap				
j) Surface Slag				
k) Cracks				
l) Welder ID Symbol		N/A		Information Only Attachment 6.3
C5) Bolting	N/A Information Header			
a) Bolt Diameter				
b) Material				
c) Quantity				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: STRUCTURAL STEEL	VERIFICATION PKG NO.: I-S-STEL			PAGE 6 OF 6
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
C5) Bolting (Cont'd)				
d) Washers				
e) Beveled Washers				
f) Hole Coverage				
g) Jam Nuts				
h) Thread Engagement				
i) Edge Distance				
j) Tightening				
k) Bearing				
l) Spacing				
m) Configuration				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC Structural Steel	VERIFICATION PKG NO. R-S-STEL-	PAGE 1 OF 3
QUALITY INSTRUCTION QI-046	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
A. Construction Operation Traveler Package	N/A			INFORMATIONAL HEADER
A.1) Inspection Package				
A.2) Drawings				
A.3) Inspector Certification	N/A			INFORMATIONAL HEADER
A.3.1) Inspection Report				
A.3.2) Weld Inspection Documentation Card				
A.3.3) Material Requisition				
A.3.4) Structural Assembly Verification Card				
A.3.5) Construction Operation Traveler				
A.3.6) Other Documents (list)				

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC Structural Steel	VERIFICATION PKG NO. R-S-STEL-			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
B. Member B.1 Welding	N/A			INFORMATIONAL HEADER
B.1.1 Weld Procedure Qualification				
B.1.2 Weld Procedure Application	N/A			INFORMATIONAL HEADER
a) Base Metal				
b) Filler Metal				
c) Material Thickness				
B.1.3 Welder Qualifications				
B.1.4 Stress Relieving				
B.2 Concrete Expansion Anchors	N/A			INFORMATIONAL HEADER
B.2.1 Torque	N/A			INFORMATIONAL HEADER
a) Calibration				
b) Torque Value				
B.2.2 Bolt Spacing				
B.2.3 Rework	N/A			INFORMATIONAL HEADER
a) Thread Fit				
b) Restamping				
B.2.4 Hole Drilling				
B.2.5 Setting				

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COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC: Structural Steel	VERIFICATION PKG NO.: R-S-STEL-			PAGE 30F 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
B.3 Structural Bolting	N/A			INFORMATIONAL HEADER
B.3.1 Tightness				
B.3.2 Torque	N/A			INFORMATIONAL HEADER
a) Torque Value				
b) Calibration				
B.4 Stud Welding	N/A			INFORMATIONAL HEADER
B.4.1 Daily Qualification Report				
B.4.2 Stud Testing				
C. Material Traceability	N/A			INFORMATION HEADER
a) Heat Number Conformity				
b) Material Conformity				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC PIPE WELDS/MATERIALS	VERIFICATION PKG NO. I-M-SBWM-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-047	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. WELDS A. Configuration				
B. Size & Profile				
C. Butt Weld Reinforcement				
D. Radial Weld Shrinkage				
E. Undercut				
F. Surface of Welds				
G. Cracks, Lack of Fusion, Crater Cracks				

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

POPULATION DESC PIPE WELDS/MATERIALS	VERIFICATION PKG NO. I-M-SBWM-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
H. Weld Rust (Stainless steel only)				
I. Welders ID Symbol (not accept/reject attribute)	N/A	N/A		Use Data Recording Form, Attachment 6.6
J. ID and Location				
2. BASE MATERIALS A. Base Material Traceability (not accept/ reject attribute)	N/A	N/A		Use Data Recording Form, Attachment 6.6
B. Base Material Defects				
C. Base Material Rust (Stainless steel only)				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-048 Rev. 1
POPULATION DESC Tubing Welds/Material	VERIFICATION PKG NO. R-M-TUWM-			PAGE 1 OF 1
QUALITY INSTRUCTION QI-048	☐ REINSPECTION			☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW			☐ UNIT 2 ☐ COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Weld Procedure Application				
2. Base Material Traceability				
3. Weld Material Traceability				
4. Weld Procedure Qualification				
5. Welder Qualifications				
6. Hold Points				
7. Inspector Certification				

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

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC PIPE WELDS/MATERIALS	VERIFICATION PKG NO. I-M-LBWM-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-049	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. WELDS A. Configuration				
B. Size & Profile				
C. Butt Weld Reinforcement				
D. Radial Weld Shrinkage				
E. Undercut				
F. Surface of Welds				
G. Cracks, Lack of Fusion, Crater Cracks				

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST				
POPULATION DESC PIPE WELDS/MATERIALS	VERIFICATION PKG NO. I-M-LBWM-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
H. Weld Rust (Stainless steel only)				
I. Welders ID Symbol (not accept/reject attribute)	N/A	N/A		Use Data Recording Form, Attachment 6.4
J. ID and Location				
2. BASE MATERIALS A. Base Material Traceability (not accept/ reject attribute)	N/A	N/A		Use Data Recording Form, Attachment 6.4
B. Base Material Defects				
C. Base Material Rust (Stainless steel only)				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

APPLICATION DESC PIPE WHIP RESTRAINTS	VERIFICATION REQ NO. I-S-PWRE	PAGE 1 OF 1
QUALITY INSTRUCTION QI-051	[X] REINSPECTION [ ] DOCUMENTATION REVIEW	[ ] UNIT 1 [ ] UNIT 2 [ ] COMMON
EQUIPMENT MARK/TAG NO.		

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Identification				
2. Location				
3. Orientation				
4. Configuration				
A. Components				
B. Materials				
i) High Strength Bolting				
ii) U-Bar Restraints				
iii) Others	N/A	N/A	Doc Review only. Record on Att 6.2	
C. Installation				
i) Level & Plumb				
ii) Dimensions				
iii) Restraint Specific				
D. Base Plates				
E. Shimming				
F. Attachments				
5. Gaps				
A. Environment				
i) Ambient Temp.	N/A	N/A		____ °F
ii) System Cond.	N/A	N/A		
B. Gap				

PREPARED BY:	APPROVED BY:
DISCIPLINE ENGR. DATE	LEAD DISCIPLINE ENGR. DATE
VERIFIED BY:	APPROVED BY:
VERIFIER DATE	LEAD VERIFIER DATE

QP- 5 (A, Revision 3)

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

VERIFICATION DESC: PIPE WHIP RESTRAINTS	VERIFICATION PKG NO.: 1-S-PWR			PAGE 1 OF 1
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Bolting				
A. Size & Number				
B. Joint Details	N/A	N/A		Doc. Review only. Record on Attachment 6.6
C. Washer				
D. Slope				
E. Torque				
F. Locking Device				
G. Nut Engagement				
7. Anchor Bolts				
A. Richmond Inserts & Threaded Bolts				
(i) Size & Number				
(ii) Spacing				
(iii) Washer				
(iv) Slope				
(v) Torque				
(vi) Nut Engagement				
(vii) Thread Engagement for Richmonds				
B. Concrete Expansion Anchors/Pilot Bolts)				
(i) Size & Number				
(ii) Embedment				
(iii) Spacing				
(iv) Angularity				
(v) Concrete Damage				
(vi) Engagement and Bearing				
8. Welding				
A. Integral Attachment Welds				
(i) Location				
(ii) Size				
(iii) Profile				
(iv) Undercut				
(v) Surface				
(vi) Cracks				
(vii) Indications				
(viii) Weld Rod				
(ix) Welders ID	N/A	N/A		Doc. Review Only Record on Att. 6.19

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

PREPARATION DESC: PIPE WHIP RESTRAINTS	VERIFICATION PKG NO.: I-S-PWRE			PAGE __ OF __
ATTRIBUTE	VERIFICATION ACCEPT	REJECT	DATE	REMARKS
B. RF Welds				
(i) Location				
(ii) Size & Profile				
(iii) Fusion				
(iv) Cracks				
(v) Undercut				
(vi) Surface				
(vii) Welder's ID	N/A	N/A		Doc. Review Only Record on Att. 6.19
C. All other welds				
(i) Location				
(ii) Size				
(iii) Fusion				
(iv) Craters				
(v) Profile				
(vi) Undercut				
(vii) Porosity				
(viii) Overlap				
(ix) Slag				
(x) Cracks				
(xi) Welder's ID	N/A	N/A		Doc. Review Only Record on Att. 6.19

CHECKLIST

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-052 Rev. 1
POPULATION DESC Pipe Whip Restraints	VERIFICATION PKG NO. R-S-PWR	PAGE 1 OF 3
QUALITY INSTRUCTION QI-052	☐ REINSPECTION ☒ DOCUMENTATION REVIEW	☐ UNIT 1 ☐ UNIT 2 ☐ COMMON
EQUIPMENT NAME/TAG NO. Traveler Reference No.		

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Construction Operation Traveler A. Traveler Package				
B. Drawings	N/A	N/A		Record on Attachment 6.8
C. Inspector Certification				
2. Welding A. Welds				
B. Weld Procedure Qualification				
C. Weld Procedure Application 1. Code				
2. Base Material				
3. Filler Metal				
3. Mat'l. Thickness				
D. Welder Qualifications 1. B&R Welds				
2. CB&I Welds				

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

CPE-MSI.1A, Revision 0

CHECKLIST (Cont'd)

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-052 Rev. 1
POPULATION DESC Pipe Whip Restraints	VERIFICATION PKG NO. R-S-PWRE			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
2. Welding (Cont'd) E. Hold Points				
F. Stress Relief 1. Time				
2. Range				
3. Rate				
4. Total Time				
3. Richmond Inserts/ Embedded Bolts				
4. Concrete Expansion Anchors (Hilti's) A. Torque 1. Calibration				
2. Torque Value				
B. Spacing				
C. Rework 1. Thread fit				
2. Restamping				
5. Structural Bolting A. Bearing Joints				
B. Friction Joints 1. Torque				
2. Calibration				

[illegible] 18, Revision 0

CHECKLIST (Cont'd)

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-032
Rev. 1

POPULATION DESC	VERIFICATION PKG NO.			
Pipe Whip Restraints	R-S-PWRE			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Material Traceability				
A. Mat'l. Certs.				
1. RIR				
2. QAR				
B. Heat No./Unique I.D				
C. Material Conformity				
7. Hot Gap				

CPRT-118, Revision 0

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-053
Rev. 2
Page 1 of 4

POPULATION DESC CATEGORY I CONDUIT SUPPORTS	VERIFICATION PKG NO.	PAGE 1 OF 4
QUALITY INSTRUCTION	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1.0 Orientation				
2.0 Configuration				
2.1 Components a. Type, etc. b. Visual Damage				
2.2 Dimensions a. Support Dim. b. Plate Thickness				
2.3 Conduit Bearing				
2.4 Clamp "t" Tolerance				
2.5 Tube Steel Vent Hole				
2.6 Base Plates				
3.0 Capacity/Span 3.1 Capacity a. Cond. size, loc. b. Adj. span len. c. Elec. fit. d. Gen. layout e. Addt'l. items f. M-D sup. sketch g. Tr. sup. sketch				

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

CONAHCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC CATEGORY I CONDUIT SUPPORTS	VERIFICATION PKG NO.			PAGE 2 OF 4
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
3.2 Span				
a. Adj. spans				
b. Dist. from tan pt.				
c. Adj. span w/fit.				
d. Wall-susp. sup.				
e. Thd. cond. w/LBD				
f. Addt'l. attr.				
4.0 Material Verification				
4.1 Mark number				
4.2 Bolting material				
5.0 Bolting				
5.1 Engagement				
a. Bolts, studs				
b. Unistrut nuts				
5.2 Washers				
a. Use				
b. Beveled washers				
5.3 Edge Distance				
5.4 Richmond Inserts				
a. Thread engagement				
b. Nuts, bolts				
5.5 Connections				
a. Dia.				
b. Quantity				
c. Spacing				
d. Unistr. buttm. out				
5.6 Torque				
a. Tor. spec.				
b. No tor. specf.				
c. Painted				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC CATEGORY I CONDUIT SUPPORTS	VERIFICATION PKG NO.			PAGE 1 OF 4
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6.0 Concrete Expansion Anchors				
6.1 Size and Number				
a. Dia.				
b. Type, etc.				
6.2 Embedment				
6.3 Bolt Spacing				
a. Spac adj. anchors				
b. Spac. to edges etc.				
c. Dist. to adj. plts				
6.4 Angularity				
6.5 Concrete Damage				
6.6 Nut Engagement and Bearing				
a. Nut engagement				
b. Surface contact				
c. Bottom out				
d. Welded nut				
7.0 Welding				
7.1 Location				
7.2 Weld Size				
7.3 Weld Length				
7.4 Fusion				
7.5 Craters				
7.6 Weld Profile				
7.7 Undercut				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC CATEGORY I CONDUIT SUPPORTS	VERIFICATION PKG NO.			PAGE 4 OF 4
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
7.0 Welding (Cont'd)				
7.8 Porosity				
7.9 Overlap				
7.10 Surface Slag				
7.11 Cracks				
7.12 Welder ID				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-054 Rev. 1
POPULATION DESC Category I Conduit Supports	VERIFICATION PKG NO. R-S-COSP	PAGE 1 OF 2
QUALITY INSTRUCTION QI-054	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Inspector Certification a. Date				
b. Procedure				
2. Material Traceability				
3. Concrete Expansion Anchors 3.1 Torque a. Calibr. due date				
b. Torque setting				
3.2 Bolt Spacing				
3.3 Rework				
4. Welding 4.1 Weld Procedure Application				
4.2 Welder Qualification				
4.3 Weld Procedure Qualification				

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

–	COMANCHE PEAK RESPONSE TEAM CHECKLIST			Attachment 6.1 QI-054 Rev. 1
POPULATION DESC Category I Conduit Supports	VERIFICATION PKG NO. R-S-COSP			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5. Stud Welding a. Daily Qualification				
b. Production Studs				
c. Final Visual				
6. Structural Bolting				
7. Drawing Revision				
8. Junction Box Config.				

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 3
INSTRUMENT PIPE/TUBE SUPPORTS	I-S-INSP-	
QUALITY INSTRUCTION QI-055	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO. SUPPORT ID	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION ACCEPT	VERIFICATION REJECT	VERIFICATION DATE	REMARKS
1. Location and Orientation				
a.				
b.				
c.				
2. Configuration				
2.1 Components				
a.				
b.				
2.2 Dimensions				
2.3 Shims				
2.4 Baseplates				
3. Material Verification	N/A	N/A		For information only
4. Bolting				
4.1 Engagement				
4.2 Surface Contact				
a.				
b.				

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

POPULATION DESC INSTR PIPE/TUBE SUPPORTS	VERIFICATION PKG NO. I-S-INSP-			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
4. Bolting (cont.)				
4.3 Washers				
4.4 Edge Distance				
4.5 Spring Nuts				
4.6 Richmond Inserts				
a.				
b.				
4.7 Torque				
a.				
b.				
c.				
5. Concrete Expansion Anchors				
5.1 Size and Number				
a.				
b.				
5.2 Embedment				
5.3 Bolt Spacing				
a.				
b.				
c.				
5.4 Angularity				
5.5 Concrete Damage				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC INSTR PIPE/TUBE SUPPORTS	VERIFICATION PKG NO. I-S-INSP-			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5. Concrete Expansion Anchors (Cont'd)				
5.6 Engagement and Bearing				
a.				
b.				
c.				
d.				
6. Welding				
6.1 Location				
6.2 Weld Size				
6.3 Weld Length				
6.4 Fusion				
6.5 Craters				
6.6 Weld Profiles				
6.7 Undercut				
6.8 Porosity				
6.9 Overlap				
6.10 Surface Slag				
6.11 Cracks				
6.12 Welder ID	N/A	N/A		For Information Only

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC Instrument Pipe/Tube Supports	VERIFICATION PKG NO. R-S-INSP-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-056	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Inspector Certification				
a. Date				
b. Procedure				
2. Material Traceability				
a. Material				
b. Heat Number				
3. Concrete Expansion Anchors				
3.1 Torque				
a. Calibr. due date				
b. Torque setting				
3.2 Bolt Spacing				
3.3 Rework				

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				
POPULATION DESC Instrument Pipe/Tube Supports	VERIFICATION PKG NO. R-S-INSP-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
4. Stud Welding a. Daily Qualification				
b. Production Studs				
c. Final Visual				
5. Drawing Revision				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-057 Rev. 7
POPULATION DESC Fill & Backfill Placement (SSI Dam)	VERIFICATION PKG NO. R-S-FILL-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-057	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO. Inspector's Daily Report No.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☒ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
A SSI DAM	———	———	———	
A.1 General	———	———	———	
a. Plans & Specifications				
b. Zone Delineation				
c. Damage due to hauling Equipment				
d. Borrow Sources				
e. Foundation Requirements				
A.2 Impervious Material Placement	———	———	———	
a. Material Blend				
b. Layer Thickness				
c. Surface Roughening				
d. Distribution of Compactive Effort				
e. Crowning				
f. Debris Removal				
A.3 Rock Fill Placement	———	———	———	
a. Layer Thickness				
b. Debris Removal				
A.4 Filter Placement	———	———	———	
a. Layer Thickness				
b. Avoid Contamination				
c. Avoid Segregation				
d. Contamination Avoided				
A.5 Moisture Control	———	———	———	
a. Filter Zone Wetting				
b. Borrow Pit Irrigation				
A.6 Processing Impervious Fill	———	———	———	
a. Moisture				

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

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-057
Rev. 7

POPULATION DESC Fill & Backfill Placement (SSI Dam)	VERIFICATION PKG NO. R-S-FILL-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
b. Surface Moistening				
c. Over wet Layers				
A.7. Processing Rockfill	———	———	———	
a. Layer Placement				
b. Stones Distribution				
c. Placement Coordination				
A.8 Compaction Equipment				
A.9 Impervious Fill Compaction	———	———	———	
a. Number of Passes				
b. Rolling Pattern				
c. Test Sampling				
A.10. Filter Compaction				
A.11 Rock Fill Compaction	———	———	———	
a. Number of Passes				
b. Additional Passes				
A.12 Testing	———	———	———	
a. Frequency of Testing				
b. IDR Test Location				
c. Test Results Test Location				
d. Density Criteria Met				
e. Reference Applicability				
f. Reference Consistency				
g. Rapid Compaction				
h. Material Testing				
A.13 Personnel Certification				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.2
QI-057
Rev. 7

POPULATION DESC Fill & Backfill Placement (Except for SSI Dam)	VERIFICATION PKG NO. R-S-FILL-	PAGE 1 OF 2
QUALITY INSTRUCTION QI-057	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☒ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
B Fill and Backfill (Except For SSI DAM)	———	———	———	
B.1 Extent of Backfill				
B.2 Soil Backfill Placement Signature Card	———	———	———	
a. IR Notation				
b. Signed and Dated				
B.3 Stockpiles	———	———	———	
a. Construction				
b. Identification				
B.4 Preparation of Working Surface				
B.5 Placement of Backfill	———	———	———	
a. Lift Thickness				
b. Moisture Control				

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 6.2
QI-057
Rev. 7

POPULATION DESC Fill & Backfill Placement (Except for SSI Dam)	VERIFICATION PKG NO. R-S-FILL-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
B.6 Testing	———	———	———	
a. Frequency of Testing				
b. Inspection Report Test Location				
c. Test Results Test Location				
d. Density Criteria Met				
e. Reference Applicability				
f. Reference Consistency				
g. Gradation Testing				
B.7 Preparation of Trenches	———	———	———	
a. Trench Excavation				
b. Claystone Removal				
B.8 Backfill/Bedding Placement	———	———	———	
a. Lift Thickness				
b. Moisture Control				
c. Shaped Bedding				
d. Pipe Spacing				
e. Hand-Tamping				
B.9 Personnel Certification				

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

Attachment 6.1
QI-059
Rev. 5

POPULATION DESC.	VERIFICATION PKG NO.	PAGE 1 OF 2
Mechanical Equipment Installation	I-M-MEIN-	
QUALITY INSTRUCTION	[X] REINSPECTION	[ ] UNIT 1
QI-059	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2
EQUIPMENT MARK/TAG NO.		[ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Equipment Identification				
2. Temporary Coatings and Preservatives				
3. Rust (Stainless Steel Only)				
4. Location				
5. Elevation				
6. Orientation				
7. Levelness				
8. Configuration				
9. Grout				
10. Anchor Bolt Location				
11. Anchor Bolt Hardware				
12. Anchor Bolt Engagement				
13. Anchor Bolt Tightness				Required Torque: _____

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

POPULATION DESC Mechanical Equipment Installation	VERIFICATION PKG NO. I-M-MEIN-			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
14. Parallel Alignment				
15. Angular Alignment				
16. Coupling Gap				
17. Seismic Restraints				
18. Concrete Expansion Anchors (Hilti) Size				
19. Hilti Type, Length, & Number				
20. Hilti Embedment				
21. Hilti Bolt Spacing				
22. Hilti Angularity				
23. Hilti Concrete Damage				
24. Hilti Nut Engagement and Bearing				
25. Spent Fuel Storage Rack Orientation				
26. Spent Fuel Storage Rack Installation				
27. Spent Fuel Storage Rack Leveling Pads				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-066 Rev. 1
POPULATION DESC Equipment Supports (EQSP)	VERIFICATION PKG NO. I-S-EQSP			PAGE 1 OF 3
QUALITY INSTRUCTION QI-066	[X] REINSPECTION			[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW			[ ] UNIT 2 [ ] COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Identification	N/A	N/A		
2. Location & Orientation				
3. Configuration				
4. Welding A. AWS Welds (i) Location				
(ii) Size				
(iii) Length				
(iv) Fusion				
(v) Craters				
(vi) Profiles				
(vii) Undercut				
(viii) Porosity				
(ix) Overlap				
(x) Slag				
(xi) Cracks				

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-066 Rev. 1
POPULATION DESC Equipment Supports (EQSP)	VERIFICATION PKG NO. I-S-EQSP			PAGE 2 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
4. Welding (Cont'd) B. NF Welds (i) Location				
(ii) Size				
(iii) Undercut				
(iv) Surface Condition				
(v) Cracks, Lack of Fusion				
(vi) Welder ID Symbol	N/A	N/A		
5. Bolting A. Attachments				
B. Materials				Thd. Rod. =
C. Engagement				
D. Surface Contact				
E. Torquing				
6. Concrete Expansion Anchors A. Size & Type				
B. Length				
C. Embedment				
D. Spacing (i)				
(ii)				
(iii)				
E. Angularity				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-066 Rev. 1
POPULATION DESC Equipment Supports (EQSP)	VERIFICATION PKG NO. I-S-EQSP			PAGE 3 OF 3
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Conc.Exp.Anchr (Cont'd) F. Engagement & Bearing (i)				
(ii)				
(iii)				
(iv)				
G. Concrete Damage				

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-067 Rev. 1
POPULATION DESC Equipment Supports (EQSP)	VERIFICATION PKG NO. R-S-EQSP			PAGE 1 OF 2
QUALITY INSTRUCTION QI-067	[X] REINSPECTION			[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW			[ ] UNIT 2 [ ] COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Support Package				
2. Operations Traveler				
3. Inspector Certification				
4. Welding (i) Weld Procedure Qualification				
(ii) Weld Procedure Application				
(iii) Welder Qualifications				
(iv) Hold Points				
(v) Stress Relief				
5. Concrete Expansion Anchors (i) Torque				
(ii) Spacing				
(iii) Rework				
(iv) Hole Drilling				
(v) Setting				

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

POPULATION DESC Equipment Supports (EQSP)	VERIFICATION PKG NO. R-S-EQSP			PAGE 2 OF 2
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
6. Structural Bolting				
(i) Bearing Joints				
(ii) Friction Joints				
7. Material Traceability (i) Material Certification				

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-068 Rev. 3
POPULATION DESC CEMENT GROUT	VERIFICATION PKG NO. R-S-GRTC-	PAGE 1 OF 1
QUALITY INSTRUCTION QI-068	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. PREPLACEMENT/PLACEMENT a. Cleanliness				
b. Area Free of Vibration				
c. Attribute Deleted				
d. Prewetting				
2. PLACEMENT a. Grout Proportions, Mix Time & Temperature				
b. Placing and Consolidation				
c. Surface Temperature				
3. POST-PLACEMENT a. Curing				
b. Compressive Strength Test				
4. PERSONNEL CERTIFICATION a. Valid Certification				
b. Certified to Procedures				

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-069 Rev. 2
POPULATION DESC EPOXY GROUT	VERIFICATION PKG NO. R-S-GRTE	PAGE 1 OF 1
QUALITY INSTRUCTION QI-069, REV. 0	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2 ☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Preplacement a) Equipment Base and Baseplate Gaps				
b) Placement Holes				
c) Cleanliness				
2. Placement a) Surface Temp.				
b) Mixing Operation				
c) Placing				
3. Post Placement a) Cure Time				
b) Compressive Strength Test				
4. Personnel Certification a) Valid Certification				

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

COMANCHE PEAK RESPONSE TEAM CHECKLIST		Attachment 6.1 QI-070 Rev. 2
POPULATION DESC Tubing Welds/Material	VERIFICATION PKG NO. I-M-TUWM-0	PAGE 1 OF 1
QUALITY INSTRUCTION QI-070	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. TUBING WELDS				
a. Weld ID and Location				
b. Configuration				
c. Weld Size				
d. Undercut				
e. Overlap				
f. Cracks, Lack of Fusion				
g. Welders ID symbol (not accept/reject attribute)				(Use Data Recording Form, Attachment 6.4)
h. Weld Rust				
2. BASE MATERIAL a. Material Traceability (not accept/reject attribute)				(Use Data Recording Form, Attachment 6.4)
b. Material Defects				
c. Material Rust				

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

CHECKLIST

COMANCHE PEAK RESPONSE TEAM
CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 1
Lighting Cable	I-E-LITG	
QUALITY INSTRUCTION	[X] REINSPECTION	[ ] UNIT 1
QI-071	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2
EQUIPMENT MARK/TAG NO.		[ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Size/Type				
2. Color-Code				
3. Destination				
4. Damage				
5. Correct Wire Joint				
6. Bare Conductor				
7. Crimp Centered				
8. Terminals				
9. No. Conductors in Box				*

* When the maximum number of conductors per box size is computed show calculation on checklist.

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

CPP-307.1A, Revision 0

COMANCHE PEAK RESPONSE TEAM CHECKLIST

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 1
Lighting Cables	R-E-LITG-	
QUALITY INSTRUCTION QI-072	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2
		☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.1 Inspector Certification				*
5.2 a. Conduit Swabbed				
b. Lubrication				
c. Damage				

* Record IR No., Inspector's name and date signed

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

POPULATION DESC	VERIFICATION PKG NO.	PAGE 1 OF 1
Pipe Welds/Material	R-M-PIWM-	
QUALITY INSTRUCTION QI-073	☐ REINSPECTION	☐ UNIT 1
EQUIPMENT MARK/TAG NO.	☒ DOCUMENTATION REVIEW	☐ UNIT 2
		☐ COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Base Material Traceability				
2. Weld Material Traceability				
3. Weld Procedure Application				
4. Weld Procedure Qualification				
5. Welder Qualifications				
6. Hold Points				
7. Inspector Certification.				
8. Hydrostatic Test				

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

POPULATION DESC NIS CABLE TERMINATIONS	VERIFICATION PKG NO. R-E-NIST	PAGE 1 OF 1
QUALITY INSTRUCTION QI-074	[X] REINSPECTION	[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW	[ ] UNIT 2 [ ] COMMON

ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
5.1 Inspector Certification				
5.2 Installation of NIS Cable Connectors				
5.3 NIS Cable Insulation and Resistance Testing				
5.4 Coupling of Connectors				
5.5 Soldered Connections				

SAMPLE

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

CPP-007.1A, Revision 0

COMANCHE PEAK RESPONSE TEAM CHECKLIST				Attachment 6.1 QI-075 Rev. 0
POPULATION DESC PIPING BEND FABRICATION	VERIFICATION PKG NO. I-M-PBFA			PAGE 1 OF 1
QUALITY INSTRUCTION QI-075	[X] REINSPECTION			[ ] UNIT 1
EQUIPMENT MARK/TAG NO.	[ ] DOCUMENTATION REVIEW			[ ] UNIT 2 [ ] COMMON
ATTRIBUTE	VERIFICATION			REMARKS
	ACCEPT	REJECT	DATE	
1. Radius				
2. Ovality				
3. Buckling/Flattening				

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

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)

CERTIFICATE OF SERVICE

I, Thomas A. Schmutz, hereby certify that the foregoing Answers To Board's 14 Questions was served this 1st day of March 1988, by mailing copies thereof (unless otherwise indicated), first class mail, postage prepaid to:

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