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March 29, 1988

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Re: Texas Utilities Electric Company, et. al.  
Docket Nos. 50-445-OL and 50-446-OL

Dear Administrative Judges:

As you are aware from TU Electric's Tenth Progress Report filed on March 4, 1988, TU Electric has been responding to certain comments and questions from the NRC Staff arising out of the December 9, 1987 public meeting. We have enclosed with this letter copies of the responses submitted by TU Electric on December 18, 1987, February 1, 1988 and March 16, 1988. Any future responses will also be provided to the Board. The enclosed materials are not being offered into evidence at this time but are provided for information only.

Respectfully submitted,

*George L. Edgar*  
George L. Edgar

8803310026 880329  
PDR ADOCK 05000445  
G PDR

Enclosures

cc: Service List

D507



Log # TXX-7099  
File # 10068  
10010

William G. Council  
Executive Vice President

December 18, 1987

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
DOCKET NOS. 50-445 AND 50-446  
RESPONSE TO NRC COMMENTS ON CPSES  
CORRECTIVE ACTION EFFORTS

Gentlemen:

Attached are our initial responses to comments by the NRC Staff made during the meeting held at the Plaza of the Americas on December 9, 1987, in Dallas, Texas, concerning the CPSES corrective action effort. These initial responses also provide additional clarification of the interrelationships of the Comanche Peak Response Team (CPRT) and the Corrective Action Program (CAP).

Very truly yours,

*W. G. Council*  
W. G. Council

JDS/grr  
Attachment

c - Mr. R. D. Martin, Region IV  
Resident Inspectors, CPSES (3)



COMMENT 1:

The NRC Staff indicated that TU Electric will be required to submit an evaluation of the nature of design deficiencies identified in the Corrective Action Program (CAP) to better enable the NRC Staff to reach conclusions concerning project corrective and preventative actions.

RESPONSE 1:

TU Electric will complete the required evaluation and submit the results of that evaluation to the NRC Staff by February 1, 1988.

COMMENT 2:

The NRC Staff indicated that the Post Construction Hardware Validation Program (PCHVP) logic (as described in the July 29 and 30, 1987 meeting) relies on previous findings to determine the attributes requiring reinspection. Attributes not being reinspected during the Post Construction Hardware Validation Program (PCHVP), should be grouped and justification provided.

RESPONSE 2:

TU Electric will submit to the NRC staff by February 1, 1988, a method for reviewing the results of completed engineering evaluations with respect to groupings of noninspected attributes and justification for those groups not being inspected.

COMMENT 3:

The NRC Staff indicated that in order to clearly understand changes at CPSES, TU Electric should establish a procedure for early identification of potential FSAR changes and provide the staff with prompt notification when a change to the CPSES licensing basis is needed.

RESPONSE 3:

TU Electric has an established method for identifying and processing potential changes to the FSAR. Procedures developed for identifying and processing changes to the FSAR include:

NEO 4.03, "Changes to the CPSES Safety Analysis Report (SAR)"

ECE-5.01-03, "Design Change Authorization"

ECE-DC-33, "Procedures for Preparation and Review of FSAR Change Requests"

TNL-10, "SAR Revision Control"

STA-416, "Processing of Licensing Documents"

These procedures are currently under review to improve the methods for identification and processing of FSAR changes. Methods for logging and tracking FSAR changes, maintained by Comanche Peak Engineering (CPE) and the Licensing Department, will also be included in the review. TU Electric intends to assure, through this procedure review, that methods are in place to allow early notification of proposed FSAR changes to the NRC Staff. This review is expected to be completed by February 1, 1988.

COMMENT 4:

The AISC and ACI codes allow the user, in certain instances, to either meet a specific requirement or to establish an alternative basis for acceptance. The NRC Staff indicated that TU Electric should develop a catalogue to track all code exceptions or alternative approaches to facilitate NRC review.

RESPONSE 4:

TU Electric has completed a review of code requirements applicable to the Cable Tray Hangers and Conduit Trains A, B and C Corrective Action Programs (CAP). The results of that review were submitted to the NRC Staff via letter logged TXX-7068 from W. G. Council to the NRC dated December 15, 1987. TU Electric expects to complete a review of the code requirements applicable to the Electrical Corrective Action Program (CAP) and submit the results of this review to the NRC Staff by February 1, 1988. TU Electric believes that the results of the review submitted to the NRC Staff in TXX-7068 supplemented by the results of the review being conducted of code requirements applicable to the Electrical Corrective Action Program will provide the information that the NRC Staff requested. TU Electric will continue to track code commitments through the TU Electric commitment tracking system.

COMMENT 5:

The NRC Technical Review Team previously raised issues concerning CPSES in the Safety Evaluation Report (NUREG-0797) Supplements 7 through 11 along with a number of specific requirements. The NRC Staff indicated that TU Electric should develop a matrix of each issue and identify where the resolution of the issue is addressed within the Comanche Peak Response Team (CPRT) program documentation or the Corrective Action Program (CAP) documentation.

RESPONSE 5:

TU Electric is developing the requested matrix which will be referred to as the CPRT "External Source Issue Matrix." TU Electric expects to complete and submit the CPRT "External Source Issue Matrix" to the NRC Staff by February 1, 1988.

COMMENT 6:

The NRC Staff indicated that TU Electric should repeat the pre-operational tests for CPSES Unit 1 unless specific justification is established for not retesting or for an alternative approach.

RESPONSE 6:

TU Electric will either retest or provide justification that retest is not necessary. The methodology for documenting review follows:

The scope of the Unit 1 Prestart Test Program will be defined in the Station Operations Review Committee (SORC) approved station procedure STA-809A "Development of System Test Matrices". This procedure is a living document which details how the acceptance criteria from the previous preoperational test procedures will be upgraded to conform to the current design documents. Each criteria will then be evaluated for the prudence of retest. Each criteria will either be tested again or justified in writing why retest is not required. The justification will be based on a thorough review of design changes, maintenance, calibration, layup environment, construction and operations which could have invalidated these test criteria. These written justifications will be retained on site for NRC review. The Joint Test Group will recommend approval of the Test Matrices to the SORC and will review and approve all completed testing.

COMMENT 7:

The NRC Staff indicated that TU Electric should provide written confirmation that corrective actions identified as a result of NRC Staff inspections of CPRT activities have been applied to CPRT activities conducted prior to such NRC Staff inspections.

RESPONSE 7:

The corrective actions taken by CPRT as a result of NRC Staff inspection findings have been documented in the TU Electric responses to NRC Notices of Deviation (NOD). The majority of corrective actions and actions to prevent recurrence have been verified by the NRC and subsequently closed. However, to ensure that CPRT activities are current, TU Electric will provide written confirmation that corrective actions identified as a result of NRC Staff inspections have been applied to CPRT activities conducted prior to such NRC Staff inspections, as appropriate. This review and confirmation will be completed and submitted to the NRC Staff by February 1, 1988.

COMMENT 8:

The NRC Staff indicated that TU Electric should explain the applicability of the Corrective Action Program (CAP) to CPSES Unit 2. Specifically, the Staff sought an explanation concerning corrective actions that are applied directly to Unit 2 and corrective actions that are incorporated as part of the formal construction management process given the current construction status of Unit 2.

RESPONSE 8:

TU Electric is conducting a review of the Corrective Action Program (CAP) to identify corrective actions that are applied directly to Unit 2 and corrective actions that are incorporated as part of the construction management process. TU Electric will submit the results of this review to the NRC Staff by February 1, 1988.

COMMENT 9:

The NRC Staff indicated they are looking into the basis for corrective and preventive actions with respect to design. Regarding implementation and adequacy of corrective and preventative actions for the TU Electric corrective action effort, the NRC Staff indicated they will monitor, audit, and inspect administrative and procedural controls to ensure proper implementation of corrective and preventative actions including training activities for new organizations that will be assuming responsibility for design from engineering contractors, testing from vendors and similar activities.

RESPONSE 9:

Procedural and administrative controls are established and are currently in use to assure proper implementation of corrective and preventative actions that have been implemented. TU Electric considers training on activities associated with procedural and administrative controls to be an integral part of implementation of any procedure or administrative control. Control for implementing corrective and preventive actions can be audited and/or inspected at implementation. TU Electric Comanche Peak Engineering (CPE) is developing a program to assure a complete and orderly transfer of the engineering and design function from the lead contractor performing the Corrective Action Program (CAP) to CPE. The program provides for the identification of those tasks presently being performed by the lead contractor which are to be transferred to Comanche Peak Engineering (CPE) and the identification of all associated procedures, programs, training, and staffing requirements. The NRC may audit the implementation of these programs as implementation occurs.



TU ELECTRIC

Log # TXX-88135  
File # 10068  
10010

William G. Counsil  
Executive Vice President

February 1, 1988

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
DOCKET NOS. 50-445 AND 50-446  
STATUS OF RESPONSE TO NRC COMMENTS  
ON CPSES CORRECTIVE ACTION EFFORTS

REF: Letter from W. G. Counsil to the NRC, logged TXX-7099  
dated December 18, 1987

Gentlemen:

Attached is the status of actions identified in our December 18, 1987 response to comments on the CPSES corrective action effort made by the NRC Staff during the December 9, 1987 public meeting (see referenced letter).

Very truly yours,

W. G. Counsil

By: John W. Beck  
John W. Beck  
Vice President,  
Nuclear Engineering

JDS/grr  
Attachment

c - Mr. R. D. Martin, Region IV  
Resident Inspectors, CPSES (3)

COMMENT 1:

The NRC Staff indicated that TU Electric will be required to submit an evaluation of the nature of design deficiencies identified in the Corrective Action Program (CAP) to better enable the NRC Staff to reach conclusions concerning project corrective and preventative actions.

RESPONSE 1:

We are continuing our evaluation of the nature of the design deficiencies identified in the Corrective Action Program and anticipate submitting the results of that evaluation by February 26, 1988.

COMMENT 2:

The NRC Staff indicated that the Post Construction Hardware Validation Program (PCHVP) logic (as described in the July 29 and 30, 1987 meeting) relies on previous findings to determine the attributes requiring reinspection. Attributes not being reinspected during the Post Construction Hardware Validation Program (PCHVP), should be grouped and justification provided.

RESPONSE 2:

Attributes not reinspected during Post-Construction Hardware Validation Program are being grouped by engineering specification. Documentation for accepting an attribute that has not been reinspected will be available on site as the technical disposition is completed.

COMMENT 3:

The NRC Staff indicated that in order to clearly understand changes at CPSES, TU Electric should establish a procedure for early identification of potential FSAR changes and provide the staff with prompt notification when a change to the CPSES licensing basis is needed.

RESPONSE 3:

TU Electric has completed a review of procedures used to process FSAR Change Requests and has identified an improved method for tracking potential changes to the FSAR. A summary list of potential changes to the FSAR will be available on site beginning February 15, 1988 and will be updated periodically. TU Electric will also keep the NRC Staff apprised as to the status of upcoming Amendments to the FSAR.

COMMENT 4:

The AISC and ACI codes allow the user, in certain instances, to either meet a specific requirement or to establish an alternative basis for acceptance. The NRC Staff indicated that TU Electric should develop a catalogue to track all code exceptions or alternative approaches to facilitate NRC review.



RESPONSE 4:

A review of the code and standards applicable to the electrical, instrumentation and control and equipment qualification portion of the Corrective Action Program is complete. Enclosure 1 provides the results of that review. TU Electric believes that the enclosed results along with the results of the review of code requirements conducted on Cable Tray Hangers and Conduit portions of the Corrective Action Program (submitted in letter logged TXX-7068, dated December 15, 1987) provides the information requested.

COMMENT 5:

The NRC Technical Review Team previously raised issues concerning CPSES in the Safety Evaluation Report (NUREG-0797) Supplements 7 through 11 along with a number of specific requirements. The NRC Staff indicated that TU Electric should develop a matrix of each issue and identify where the resolution of the issue is addressed within the Comanche Peak Response Team (CPRT) program documentation or the Corrective Action Program (CAP) documentation.

RESPONSE 5:

Enclosure 2, "Comanche Peak Steam Electric Station (CPSES) TRT Issues--SSERs 7, 8, 10 and 11" is a listing of open TRT items (SSERs 7, 8, 10 and 11) and provides the results of our review. Documentation supporting the results will be available on site.

COMMENT 6:

The NRC Staff indicated that TU Electric should repeat the pre-operational tests for CPSES Unit 1 unless specific justification is established for not retesting or for an alternative approach.

RESPONSE 6:

TU Electric's response to this comment was provided in a previous submittal. See Attachment to TXX-7099 dated December 18, 1987.

COMMENT 7:

The NRC Staff indicated that TU Electric should provide written confirmation that corrective actions identified as a result of NRC Staff inspections of CPRT activities have been applied to CPRT activities conducted prior to such NRC Staff inspections.

RESPONSE 7:

The NRC Staff began inspecting CPRT activities in June 1985, as evidenced by NRC inspection reports 445/85-11 and 446/85-06.

The corrective actions taken by CPRT as a result of NRC Staff inspection findings have been documented in TU Electric's responses to NRC Notices of Deviation (NOD). The majority of corrective actions and actions taken to prevent recurrence have been verified by the NRC and subsequently closed.



To assure that corrective actions resulting from issues identified through the aforementioned NRC Staff inspections have been applied to prior CPRT activities, CPRT again reviewed all CPRT NODs, categorizing the findings and identifying the corrective action implemented. As a result of this review, a database was developed that related the NRC finding and subsequent corrective action to the applicable CPRT Issue-Specific Action Plan (ISAP).

Based on the responses to NODs and the NOD review discussed above, CPRT has concluded that corrective actions resulting from NRC Staff inspections have been applied to CPRT inspection activities predating such NRC Staff inspections. Documentation supporting this conclusion is available at CPSES.

COMMENT 8:

The NRC Staff indicated that TU Electric should explain the applicability of the Corrective Action Program (CAP) to CPSES Unit 2. Specifically, the Staff sought an explanation concerning corrective actions that are applied directly to Unit 2 and corrective actions that are incorporated as part of the formal construction management process given the current construction status of Unit 2.

RESPONSE 8:

The preparation of TU Electric's response is in progress. TU Electric expects to complete and submit the response by March 31, 1988.

COMMENT 9:

The NRC Staff indicated they are looking into the basis for corrective and preventive actions with respect to design. Regarding implementation and adequacy of corrective and preventative actions for the TU Electric corrective action effort, the NRC Staff indicated they will monitor, audit, and inspect administrative and procedural controls to ensure proper implementation of corrective and preventative actions including training activities for new organizations that will be assuming responsibility for design from engineering contractors, testing from vendors and similar activities.

RESPONSE 9:

TU Electric's response to this comment was provided in a previous submittal. See Attachment to TXX-7099 dated December 18, 1988.

ENCLOSURE 1 TO TXX-88135

FEBRUARY 1, 1988

ITEM	STANDARD ACCEPTANCE	ALTERNATIVE	CONTRACTOR	REFERENCED	REMARKS
	PARAMETER	ACCEPTANCE PARAMETER	DOCUMENT	IN PSR, RIL,DAP	
	CODE-REG. GUIDE	CODE-REG. GUIDE		REFERENCE DOCUMENT(S)	
D.G. CAPACITY	R.G. 1.9			FSAR 1A(B)	THE CPSES DIESEL GENERATOR SETS COMPLY WITH THE REQUIREMENTS OF SAFETY GUIDE 9 WITH THE FOLLOWING COMMENT: THE VOLTAGE MAY DIP BELOW 75% OF NOMINAL VOLTAGE WHEN THE D-G BREAKER CLOSES AND ENERGIZES THE TWO 2000/2666 KVA, 6.9KV/480V UNIT SUBSTATION TRANSFORMERS. THE VOLTAGE DIP IS DUE TO MAGNETIZING IN RUSH CURRENT WHICH EXISTS FOR TWO TO THREE CYCLES. THE D-G SETS ARE DESIGNED TO RECOVER TO 80% OF NOMINAL VOLTAGE WITHIN 10 CYCLES.
QUALITY GROUP CLASSIFICATION AND STANDARDS FOR WATER, STEAM AND RADIOACTIVE-WASTE CONTAINING COMPONENTS OF NUCLEAR POWER PLANTS	R.G. 1.26			FSAR 1A(N)-14	COMPONENTS OF THE ACCUMULATOR SUBSYSTEM AND THE REFUELING WATER SUBSYSTEM ARE PLACED IN A HIGHER CLASSIFICATION. THE EFFECT OF THIS HIGHER CLASSIFICATION IS TO PRODUCE THE SAME QUALITY LEVELS FOR ALL COMPONENTS AS IS ACHIEVED BY THE APPLICATION OF THE 1973 VERSION OF N18.2, AS FINALLY ACCEPTED BY ANSI.
CONTROL OF THE USE OF SENSITIZED STAINLESS STEEL	R.G. 1.44			FSAR 1A(N)-26 FSAR 1A(B)-18	UPPER LIMIT TEMPERATURE FOR DISSOLVED OXYGEN CONCENTRATION ABOVE 0, 1 PARTS PER MILLION (PPM) SHOULD BE INCREASED TO 250F FROM 200F, TO PROVIDE FOR MUCH QUICKER REDUCTION OF THE OXYGEN CONCENTRATION BY REACTION WITH HYDRAZINE. THE INTERGRANULAR CORROSION TESTS ARE ELIMINATED BECAUSE THE WELD ARC HEAT INPUT IS CONTROLLED AS DESCRIBED IN FSAR SECTION 6.1B.1.1.2, ITEM 1e. EXCEPTION TO THIS REGULATORY POSITION IS ALSO TAKEN FOR SOME EQUIPMENT AS DESCRIBED IN FSAR SECTION 6.1B.11.2, ITEM 2.
ELECTRIC PENETRATION ASSEMBLY	R.G. 1.63			FSAR 1A(B)	COMPLIES WITH THE INTENT OF R.G. 1.63. THE ELECTRICAL DESIGN INCORPORATES BACKUP PROTECTION DEVICES FOR ALL POWER CIRCUITS. CONTROL CIRCUITS HAVE ALSO BEEN PROVIDED WITH BACKUP PROTECTION DEVICES WHEN REQUIRED.

ITEM	STANDARD ACCEPTANCE	ALTERNATIVE	CONTRACTOR	REFERENCED	REMARKS
	PARAMETER	ACCEPTANCE PARAMETER			
	CODE/REG. GUIDE	CODE/REG. GUIDE	DOCUMENT	REFERENCE DOCUMENT(S)	RIL,DAP
QUALIFICATION TESTING OF VALVE OPERATORS	R.G. 1.73	IEEE 382-1972		FSAR 1A(N)-42 FSAR 1A(B)-43	FUSES OR FUSIBLE LINKS WITHIN PENETRATION ASSEMBLIES ARE NOT INCORPORATED IN THE DESIGN BECAUSE OF THE PHYSICAL LIMITATIONS OF THE STANDARD PENETRATION DESIGNS AVAILABLE.  SAFETY RELATED MOTOR OPERATED VALVES INSIDE CONTAINMENT COMPLY WITH THE GUIDANCE OF R.G. 1.73 (1/74) WITH THE EXCEPTION THAT STEM-MOUNTED LIMIT SWITCHES ARE TESTED SEPARATELY IN ACCORDANCE WITH THE REQUIREMENTS OF IEEE 382-1972.
SEPARATION	R.G. 1.75 IEEE-384			FSAR 1A(B)	THE CPSES ELECTRICAL SEPARATION CRITERIA MEETS THE INTENT OF R.G. 1.75 AND IEEE-384-1974 WITH THE EXCEPTIONS/CLARIFICATIONS LISTED IN FSAR APPENDIX 1A(B).
QUALIFICATION APPROACH	R.G. 1.89		WCAP-8587	FSAR 1A(N)-48	THE WESTINGHOUSE APPROACH TO SATISFY THESE GUIDELINES OF R.G. 1.89 ARE DOCUMENTED IN WCAP-8587. THIS IS BEING CURRENTLY SERVICED. UPON RESOLUTION OF THE OUTSTANDING ISSUES, THIS PROGRAM WILL BE IMPLEMENTED FOR THE CPSES.
ANALYSIS OF PRIMARY COOLANT (ACCIDENT SAMPLING)	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4	RESULTS ARE OBTAINED BY ANALYSIS OF SAMPLES OR FROM PORTABLE MONITORS. DIRECT DISPLAY IN THE CONTROL ROOM IS NOT PRACTICAL FOR CPSES.
AREA RADIATION LEVELS ADJACENT TO CONTAINMENT	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4	AN EQUIVALENT MEASURE OF CONTAINMENT BREACH IS INDICATED IN THIS AREA BY MEANS OF A PROCESS MONITOR WITH A RANGE OF 10(-4) TO 10(+0) $\mu$ Ci/cc.  THE SPENT FUEL POOL AREA MONITORS FUNCTION AS NORMAL AREA MONITORS IN THE FUEL BUILDING. THE RANGE OF THESE MONITORS (10(-1) TO 10(+4) $\mu$ R/hr) IS SUITABLE FOR MONITORING AREAS ADJACENT TO THE CONTAINMENT BUILDING.

ITEM	STANDARD ACCEPTANCE PARAMETER CODE REG. GUIDE	ALTERNATIVE ACCEPTANCE PARAMETER CODE/REG. GUIDE	CONTRACTOR DOCUMENT	REFERENCE DOCUMENT(S)	REFERENCED IN PSR, RIL, OAP	REMARKS
ATMOSPHERIC STABILITY	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		TABLE 2 TO REG. GUIDE 1.97 REV. 2, DESIGNATES THE VARIABLE, AREA RADIATION LEVELS ADJACENT TO CONTAINMENT, AS CATEGORY 2 AND AS A TYPE C VARIABLE UNDER CONTAINMENT. IN THE CPSES PLANT SPECIFIC ANALYSIS (SEE THE CPSES FSAR, SECTION 7.5) THE KEY TYPE C VARIABLES FOR CONTAINMENT BOUNDARY ARE CONTAINMENT PRESSURE (WR) AND CONTAINMENT HYDROGEN CONCENTRATION. ADJACENT BUILDING RADIATION IS CONSIDERED A BACKUP VARIABLE FOR MONITORING THE CONTAINMENT BOUNDARY. THEREFORE THIS VARIABLE IS CATEGORY 3.
BORIC ACID CHARGING FLOW	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
CHECKING, TESTING, CALIBRATION OF THE CALIBRATION VERIFICATION	R.G. 1.97 REV. 2 R.G. 1.118 (POSITION C1.4b)			FSAR TABLE 032.110-6		COMPLIANCE WITH REG. GUIDE 1.118 IS AS DISCUSSED IN SECTION 1A(B) OF THE CPSES FSAR. THE SURVEILLANCE REQUIREMENTS FOR ACCIDENT

ITEM	STANDARD ACCEPTANCE PARAMETER CODE REG. GUIDE	ALTERNATIVE ACCEPTANCE PARAMETER CODE/REG. GUIDE CONTRACTOR DOCUMENT	REFERENCE DOCUMENT(S)	REFERENCED IN PSR, RIL, DAP	REMARKS
		REG. GUIDE 1.97, REV. 2			MONITORING CHANNELS WILL COMPLY WITH THE CPSES TECH. SPECS (1.3.3.6 AND 4.3.3.6) AS IMPLEMENTED BY CPSES TEST PROCEDURES (SEE FSAR SECTION 13.5.2.2.5).
CONDENSER OFF-GAS RADIATION	R.G. 1.97 REV. 2		FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
CONTAINMENT WATER LEVEL	R.G. 1.97 REV. 2		FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.  ADDITIONAL INFORMATION IS NOT AVAILABLE AS CONTAINMENT WATER LEVEL TRANSMITTERS ARE MULTIPOINT SENSORS AND FAILURE OF ANY ONE SENSOR WOULD NOT CAUSE AMBIGUITY AND HENCE WILL NOT HAVE ANY ADVERSE EFFECT ON THE MONITORING OF CONTAINMENT WATER LEVEL.
CONTAINMENT ISOLATION VALVE POSITION	R.G. 1.97 REV. 2		FSAR TABLE 032.110-4		TABLE 2 TO REG. GUIDE 1.97, REV. 2, DESIGNATES THE VARIABLE, CONTAINMENT ISOLATION VALVE POSITION, AS CATEGORY 1 AND AS A "TYPE B" VARIABLE UNDER MAINTAINING CONTAINMENT INTEGRITY. IN THE CPSES PLANT SPECIFIC ANALYSIS (SEE THE CPSES FSAR, SECTION 7.5) THE KEY TYPE B VARIABLES FOR CONTAINMENT ENVIRONMENT ARE CONTAINMENT PRESSURE (MR), CONTAINMENT RADIATION LEVEL, CONTAINMENT WATER LEVEL, AND CONTAINMENT HYDROGEN CONCENTRATION. CONTAINMENT

ITSH	STANDARD ACCEPTANCE PARAMETER CODE/REG. GUIDE	ALTERNATIVE ACCEPTANCE PARAMETER CODE/REG. GUIDE	CONTRACTOR DOCUMENT	REFERENCE DOCUMENT(S)	REFERENCED IN PSR, RIL,DAP	REMARKS
						ISOLATION VALVE STATUS WAS CONSIDERED A TIME C BACKUP VARIABLE FOR MONITORING CONTAINMENT BOUNDARY INTEGRITY. THEREFORE, CONTAINMENT ISOLATION VALVE STATUS IS CATEGORY 2 FOR CPSES. EACH PENETRATION INTO THE CONTAINMENT HAS TWO ISOLATION BOUNDARIES.
						REDUNDANCY 'DIVERSITY' IS NOT REQUIRED BASED ON THE CATEGORY ASSIGNED BY THE CPSES PLANT SPECIFIC ANALYSIS (SEE THE CPSES FSAR, SECTION 7.5).
CONTAINMENT PRESSURE (WR)	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
						CONTAINMENT PRESSURE WIDE RANGE HAS QUALIFIED REDUNDANT CHANNELS BUT ADDITIONAL INFORMATION IS NOT AVAILABLE TO RESOLVE AMBIGUITIES OVER THE FULL RANGE OF THE INSTRUMENTS. THE ADDITIONAL INFORMATION PROVIDED BY THE CONTAINMENT PRESSURE NARROW RANGE IS SUFFICIENT.
CONTAINMENT ATMOSPHERIC TEMPERATURE	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
CONTAINMENT SUMP WATER TEMPERATURE	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THE VARIABLE, CONTAINMENT SUMP WATER TEMPERATURE, IS NOT MONITORED AT CPSES AND WAS NOT CONSIDERED A REQUIRED VARIABLE PER



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CONTAINMENT RADIATION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THE CPSES PLANT SPECIFIC ACCIDENT MONITORING ANALYSIS (SEE THE CPSES FSAR, SECTION 7.5). IN ADDITION, IT SHOULD BE NOTED THAT DIVERSE INFORMATION CAN BE OBTAINED BY MONITORING CONTAINMENT ATMOSPHERIC TEMPERATURE AND RHR HEAT EXCHANGER DISCHARGE TEMPERATURE.
CR AREA RADIATION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		CONTAINMENT RADIATION HAS REDUNDANT CHANNELS BUT ADDITIONAL INFORMATION IN THE FORM OF A DIVERSE CHANNEL DOES NOT EXIST. AMBIGUITIES CAN BE RESOLVED USING PORTABLES INSTRUMENTS OUTSIDE CONTAINMENT AND PROMPT COMMUNICATIONS TO THE CONTROL ROOM. AMBIGUITIES WILL NOT LEAD OPERATORS TO DEFEAT OR FAIL TO ACCOMPLISH A REQUIRED SAFETY FUNCTION.
CR VENT DAMPER POSITION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
CST WATER LEVEL	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
						CST WATER LEVEL HAS REDUNDANT CHANNELS BUT ADDITIONAL INFORMATION IN THE FORM OF ANOTHER IDENTICAL CHANNEL OR A DIVERSE CHANNEL DOES NOT EXIST AS A QUALIFIED DISPLAY IN THE CONTROL ROOM. LOCAL INDICATION, SUCH AS INDICATION GAUGE LEVEL AND PUMP SUCTION PRESSURE INDICATIONS ARE AVAILABLE TO RESOLVE

ITEM	STANDARD ACCEPTANCE PARAMETER	ALTERNATIVE ACCEPTANCE PARAMETER	CONTRACTOR DOCUMENT	REFERENCE DOCUMENT(S)	REMARKS
ENVIRONMENTAL QUALIFICATION (EQ)	R.G. 1.97 REV. 2 R.G. 1.89 AND NIREG-0598 (POSITIONS C1.3.1a AND C1.3.2a)			FSAR TABLE 032.110-6	AMBIGUITIES. SUFFICIENT TIME IS AVAILABLE TO RESOLVE AMBIGUITIES BEFORE THE OPERATOR MUST ACT ON CST WATER LEVEL INFORMATION.  EQ AT CPSES IS DISCUSSED IN THE CPSES FSAR, SECTION 3.11 AND APPENDIX JA. DEVIATIONS ARE MINOR AND ARE BEING REVIEWED BY THE NRC STAFF AS PART OF THE CPSES OL REVIEW.
ENVIRONS RADIATION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4	RESULTS ARE OBTAINED BY ANALYSIS OF SAMPLES OR FROM PORTABLE MONITORS. DIRECT DISPLAY IN THE CONTROL ROOM IS NOT PRACTICAL FOR CPSES.
EQ FOR CATEGORY 2 VARIABLES	R.G. 1.97 REV. 2 (POSITION C1.3.2a)			FSAR TABLE 032.110-6	CATEGORY 2 INSTRUMENTATION IS ENVIRONMENTALLY QUALIFIED WHEN IT IS SUBJECTED TO ADVERSE ENVIRONMENTS CAUSED BY THE DBA DURING THE TIME IT MUST SERVE ITS INTENDED FUNCTION. THIS POSITION IS COMPATIBLE WITH THE EQ RULE, 10 CFR 50.49.
HEAT REMOVAL BY CONTAINMENT FAH HEAT REMOVAL SYSTEM	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4	THE CPSES DESIGN DOES NOT INCLUDE A FAN HEAT REMOVAL SYSTEM, INSIDE CONTAINMENT, THAT IS DESIGNED TO OPERATE FOLLOWING A DESIGN BASIS ACCIDENT.
HIGH-LEVEL RADIOACTIVE LIQUID T&H LEVEL	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4	THE ONLY IMMEDIATE CONCERN OF THE CONTROL ROOM OPERATOR FOLLOWING AN ACCIDENT WITH RESPECT TO THE LEVEL IN THE HIGH LEVEL RADIOACTIVE GAS HOLDUP TANK AND THE PRESSURE IN THE RADIOACTIVE GAS HOLDUP TANK IS INADVERTENTLY OVER-FILLING THESE TANKS. THIS IS PREVENTED BY PROVIDING AN ALARM IN THE CONTROL ROOM WHEN THERE IS A POTENTIAL FOR OVER-FILLING ONE OF THE TANKS.
HOT LAB AREA RADIATION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4	THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED

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INSTRUMENT IDENTIFICATION	R.G. 1.97 REV. 2 (POSITION C1.4b)		FSAR TABLE 032.110-6		RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.  ALL CATEGORY 1 INDICATORS IN THE CONTROL ROOM HAVE UNIQUE COLOR CODING. UNIQUE IDENTIFICATION OF CATEGORY 2 INDICATION IN THE CONTROL ROOM WOULD VIOLATE HUMAN FACTOR GUIDELINES AND MAY EVEN REDUCE SAFETY.
ISOLATION DEVICES	R.G. 1.97 REV. 2 (POSITION C1.4a)		FSAR TABLE 032.110-6		THE CPSES DESIGN MEETS THIS REQUIREMENT WHEN THE POWER SOURCE FOR THE CHANNEL IS CLASS 1E. THE USE OF ISOLATION DEVICES IS ONLY JUSTIFIED FOR CLASS 1E CIRCUITS.
MAIN STEAMLINE PRESSURE	R.G. 1.97 REV. 2		FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
MAIN STEAMLINE RADIATION	R.G. 1.97 REV. 2		FSAR TABLE 032.110-4		TABLE 2 TO REG. GUIDE 1.97, REV. 2, INCLUDES VENT FLOW RATE AS A VARIABLE TO BE MEASURED FOR ALL IDENTIFIED RELEASE POINTS. CPSES COMPLIES WITH THIS REQUIREMENT EXCEPT FOR THE STEAM GENERATOR RELIEF AND SAFETY VALVE DISCHARGE PATH. FOR THIS PATH, MAIN STEAMLINE RADIATION IS MEASURED AND THE VOLUME RELEASED IS CALCULATED BASED ON THE DURATION FOR WHICH THE VALVES ARE OPEN AND THE PHYSICAL PARAMETERS INVOLVED. THIS IS THE BEST WAY TO MEASURE SUCH AN INTERMITTENT, HIGH ENERGY RELEASE.
OPERABILITY	R.G. 1.97 REV. 2 IEEE STANDARD 279 FOR CAT. 1 (OR TECH SPECS) POSITION		FSAR TABLE 032.110-6		CATEGORY 2 INSTRUMENTATION IS ENVIRONMENTALLY QUALIFIED WHEN IT IS SUBJECTED TO ADVERSE ENVIRONMENTS CAUSED BY THE DBA DURING THE TIME IT MUST SERVE ITS INTENDED FUNCTION.

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						THIS POSITION IS COMPATIBLE WITH THE EQ RULE, 10 CFR 50.49.
PASS ROOM AREA RADIATION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
PLANT VENT STACK AREA RADIATION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
POST ACCIDENT SAMPLING SYSTEM	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THE DEVIATION SHOWN IS DUE TO THE FACT THAT AN ANALYSIS PROCESS HAS A MINIMUM VALUE BASED ON THE SENSITIVITY OF THE PROCESS AND EQUIPMENT. THE CPSES RANGES REFLECT THIS MINIMUM VALUE.  THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.  RESULTS ARE OBTAINED BY ANALYSIS OF SAMPLES OR FROM PORTABLE MONITORS. DIRECT DISPLAY IN THE CONTROL ROOM IS NOT PRACTICAL FOR CPSES.
PRESSURIZER LEVEL	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE

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PRESSURIZER RELIEF TANK TEMPERATURE	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
QUALITY ASSURANCE	R.G. 1.97 REV. 2 SPECIFIC LIST OF REGULATORY GUIDES (POSITIONS CI.3.1e & CI.3.2d)			FSAR TABLE 032.110-6		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
RADIATION LEVEL IN CIRCULATION PRIMARY COOLANT	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THE CPSES QUALITY ASSURANCE PROGRAM AND THE APPLICABLE REGULATORY GUIDES ARE ADDRESSED IN THE CPSES FSAR AND IN PARTICULAR IN CHAPTER 17. THIS PROGRAM IS UNDER REVIEW AS PART OF THE CPSES OL REVIEW.  TABLE 2 TO REG. GUIDE 1.97, REV. 2, DESIGNATES THE VARIABLE, RADIATION LEVEL IN PRIMARY COOLANT, AS CATEGORY 1 AND AS A TYPE C VARIABLE UNDER FUEL CLADDING. IN THE CPSES PLANT SPECIFIC ANALYSIS (SEE THE CPSES FSAR, SECTION 7.5) THE TYPE C KEY VARIABLE FOR MONITORING IN-CORE FUEL CLAD INTEGRITY IS CORE EXIT TEMPERATURE WITH THE PRIMARY BACKUP VARIABLE REACTOR VESSEL WATER LEVEL INDICATING SYSTEM (RVLIS) AND THE BACKUP VARIABLE POST ACCIDENT SAMPLING SYSTEM (PASS). THE PASS IS USED TO MEASURE THE VARIABLE RCS RADIOACTIVITY CONCENTRATION (SAMPLING). THEREFORE, RADIATION LEVEL IN PRIMARY COOLANT IS REPLACED BY THE CATEGORY 3 VARIABLE FOR CPSES.  REDUNDANCY IS NOT REQUIRED BASED ON THE

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						<p>CATEGORY ASSIGNED BY THE CPSES PLANT SPECIFIC ANALYSIS - SEE THE CPSES FSAR, SECTION 7.51.</p> <p>THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.</p> <p>RESULTS ARE OBTAINED BY ANALYSIS OF SAMPLES OR FROM PORTABLE MONITORS. DIRECT DISPLAY IN THE CONTROL ROOM IS NOT PRACTICAL FOR CPSES.</p>
RADIATION EXPOSURE METERS	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		<p>RADIATION EXPOSURE METERS ARE NOT REQUIRED AT CPSES. RADIATION MONITORING FOLLOWING AN ACCIDENT IS COVERED BY THE CPSES EMERGENCY PLAN. IMPLEMENTATION OF THE REQUIREMENT FOR RADIATION EXPOSURE METERS WAS POSTPONED INDEFINITELY BY THE ERRATA DATED JULY 1981 TO R.G. 1.97, REV. 2.</p>
RADIOACTIVE GAS HOLDUP TANK PRESSURE	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		<p>THE ONLY IMMEDIATE CONCERN OF THE CONTROL ROOM OPERATOR FOLLOWING AN ACCIDENT WITH RESPECT TO THE LEVEL IN THE HIGH LEVEL RADIOACTIVE GAS HOLDUP TANK AND THE PRESSURE IN THE RADIOACTIVE GAS HOLDUP TANK IS UNADVERTENTLY OVER-FILLING THESE TANKS. THIS IS PREVENTED BY PROVIDING AN ALARM IN THE CONTROL ROOM WHEN THERE IS A POTENTIAL FOR OVER-FILLING ONE OF THE TANKS.</p> <p>THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL</p>

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RCS SOLUBLE BORON CONCENTRATION	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		<p>OCURRENCES AND ACCIDENT CONDITIONS.</p> <p>THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.</p> <p>RESULTS ARE OBTAINED BY ANALYSIS OF SAMPLES OR FROM PORTABLE MONITORS. DIRECT DISPLAY IN THE CONTROL ROOM IS NOT PRACTICAL FOR CPSES.</p>
REACTOR SHIELD BUILDING ANIMAL EFFLUENT	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		NOT IN CPSES DESIGN
REACTOR VESSEL WATER LEVEL	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		<p>THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.</p>
RHR HEAT EXCHANGER DISCHARGE TEMPERATURE	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		<p>THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.</p>
SI ACCUMULATOR TANK LEVEL	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		<p>TABLE 2 TO REG. GUIDE 1.97, REV. 2, DESIGNATES THE VARIABLE, ACCUMULATOR TANK LEVEL, AS CATEGORY 2 AND AS A TYPE D VARIABLE UNDER SAFETY INJECTION SYSTEMS. IN THE CPSES FLAW SPECIFIC ANALYSIS (SEE THE CPSES FSAR,</p>



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SI ACCUMULATOR TANK PRESSURE	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		SECTION 7.5) THE TYPE D KEY VARIABLES FOR MONITORING ECCS ARE RWST LEVEL, SAFETY INJECTION PUMP FLOW, RHR PUMP FLOW, CENTRIFUGAL CHARGING PUMP INJECTION FLOW, CONTAINMENT WATER LEVEL, ECCS VALVE STATUS, SI ACCUMULATOR ISOLATION VALVE STATUS, AND SI ACCUMULATOR TANK PRESSURE. THE BACKUP VARIABLE IS SI ACCUMULATOR TANK LEVEL. THEREFORE, SI ACCUMULATOR TANK LEVEL IS CATEGORY 3 FOR CPSES.
						THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
						QA AND QUALIFICATION IS NOT REQUIRED BASED ON THE CATEGORY ASSIGNED BY THE CPSES PLANT SPECIFIC ANALYSIS (SEE THE CPSES FSAR, SECTION 7.5).
SI ACCUMULATOR ISOLATION VALVE STATUS	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
						THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S

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STEAM GENERATOR WATER LEVEL (WR)	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
T (COLD) RCS (WR)	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		STEAM GENERATOR WATER LEVEL (WR) IS ONLY USED AS A BACKUP VARIABLE TO DETERMINE LOSS OF SECONDARY HEAT SINK AND LOW STEAM GENERATOR LEVEL. FOR THESE EVENTS STEAM GENERATOR WATER LEVEL (NR) AND AUXILIARY FEED FLOW ARE USED AS THE KEY VARIABLES. THEREFORE STEAM GENERATOR (WR) IS A D2 VARIABLE.  ADDITIONAL INFORMATION IS NOT REQUIRED BASED ON THE CATEGORY ASSIGNED BY THE CPSES PLANT SPECIFIC ANALYSIS (SEE THE CPSES FSAR, SECTION 7.5).
T(HOT)RCS (WR)	R.G. 1.97 REV. 2			FSAR TABLE 032.110-4		THESE INSTRUMENT RANGES DEVIATE FROM THE SPECIFIC RANGES LISTED IN TABLE 2 OF REG. GUIDE 1.97, REV. 2, BUT HAVE BEEN FOUND ACCEPTABLE FOR CPSES'S SPECIFIC REQUIREMENTS BASED ON THE FINDING THAT THE CPSES SPECIFIED RANGES COVER THE ANTICIPATED RANGES FOR NORMAL OPERATION, ANTICIPATED OPERATIONAL OCCURRENCES AND ACCIDENT CONDITIONS.
PERIODIC TESTING OF D.C. UNITS	R.G. 1.106 REV. 1			1A(B)		THE REQUIREMENTS OF POSITION C.1B.4 ARE SATISFIED AS DESCRIBED IN FSAR APPENDIX

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PERIODIC TESTING OF ELECTRIC PWF & PROTECTION SYSTEMS	R.G. 1.118			FSAR 1A(B)	IA B).	THE IMPLEMENTATION OF THE REG. GUIDE DATED JUNE 1976 DOES NOT INCLUDE CPSES, THE CPSES ELECTRICAL POWER SYSTEMS ARE TESTABLE TO THE EXTENT DESCRIBED IN FSAR SECTION 8.2.1.2.2, 6.3.1.1.11 ITEM 3 AND 6.3.2 ITEM 6.
QUALIFICATION TESTS OF ELECTRIC CABLES, FIELD SPLICES, AND CONNECTIONS	R.G. 1.131			FSAR 1A(B)		THE IMPLEMENTATION OF THIS REG. GUIDE, DATED AUGUST 1976, DOES NOT INCLUDE CPSES. HOWEVER, CPSES MEETS MOST OF THE REQUIREMENTS, EXCEPT FOR THOSE NOTED IN FSAR APPENDIX 1A(B).
STRUCTURAL STEEL SHAPES FOR INSTRUMENT IMPULSE TUBING, VALVES AND FITTING SUPPORTS.	AISC 7TH EDITION 1959	AISC 8TH EDITION 1978	SWEC	LDCR F3.9B-13		SWEC ENGINEERS CALCULATION DATA AS SHOWN ON 2323-I-001/002.
IMPULSE TUBING VALVES AND FITTING SUPPORTS.	ASME III SUBSECTIONS NF, NA 4000, NA 5000, AND NA 8000.	SEISMIC CATEGORY I 10CFR50, APP. B	SWEC	SPECIFICATION 2323-SS-20, OBD-EE-035		SWEC ENGINEERS CALCULATION DATA AS SHOWN ON 2325-I-001/002.
ELECTRICAL PENETRATION ON-LINE TESTABILITY	IEEE-279			FSAR 8.3.1.2.1 ITEM 6.		INCORPORATION OF ONLINE TESTABILITY, BYPASSING, MANUAL INITIATION, AND OTHER REQUIREMENTS OF IEEE 279 FOR EVERY ELECTRICAL PENETRATION ASSEMBLY CIRCUIT IS EXTREMELY DIFFICULT TO IMPLEMENT AND IS NOT REQUIRED. THE APPLICATION OF BACKUP PROTECTION DEVICES IS SUFFICIENT TO ENSURE THAT THE PENETRATION ASSEMBLY INTEGRITY IS NOT VIOLATED IF ONE DEVICE FAILS TO OPERATE.
CONTROL INTERLOCKS	IEEE 279-1971			FSAR AMENDMENT II 7.1.2.1.5		CONTROL INTERLOCKS ARE NOT SAFETY-RELATED. THEREFORE, THEY HAVE NOT BEEN SPECIFICALLY DESIGNED TO MEET THE REQUIREMENT OF IEEE.
MAIN FEEDWATER PUMP CONTROL	IEEE 279-1971			FSAR 7.7-11		THE TRIPPING OF THE MAIN FEEDWATER PUMP INTERFACES WITH THE PROTECTION SYSTEM BY STARTING THE MOTOR DRIVEN AUXILIARY FEEDWATER

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MANUAL OVERRIDE	IEEE 279-1971			FSAR AMENDMENT 56 7.3-13		PUMPS. THE CIRCUIT IS DESIGNED IN ACCORDANCE WITH IEEE STANDARD 279-1971 WITH THE EXCEPTION THAT THE SENSORS AND ASSOCIATED WIRING BEING LOCATED BY NECESSITY IN NON-SEISMIC CATEGORY I STRUCTURES WILL NOT BE SEISMICALLY QUALIFIED.
SINGLE FAILURE CRITERIA (CONTAINMENT SPRAY)	IEEE 279-1971			FSAR AMENDMENT 11 7.3.2.2.1		FOR CONTAINMENT SPRAY, THE FINAL BISTABLES ARE ENERGIZED TO TRIP TO AVOID SPURIOUS ACTUATION. IN ADDITION, MANUAL CONTAINMENT SPRAY REQUIRES A SIMULTANEOUS ACTUATION OF TWO MANUAL CONTROLS. THIS IS CONSIDERED ACCEPTABLE BECAUSE SPRAY ACTUATION ON HI-3 CONTAINMENT PRESSURE SIGNAL PROVIDES AUTOMATIC INITIATION OF THE SYSTEM VIA PROTECTION CHANNELS MEETING THE CRITERIA IN SECTION 3 OF CPSES FSAR AMENDMENT 11, JULY 11, 1980.
BATTERY TESTING/INSPECTION	IEEE-108	IEEE-450 R.G. 1-129		FSAR 8.3.1.2.1 ITEM 10		ALL ASPECTS OF THE ELECTRICAL STATION DESIGN COMPLY WITH IEEE-308-1974
PERIODIC TESTING OF RTS AND L.T.S.	IEEE 106-1971			FSAR 7.1.2.11		PLEASE REFER TO 7.1-41, 42, 43 OF FSAR FOR DETAILS.
PERIODIC TESTING OF ICC MONITORING	IEEE STD. 138-1977	LETTER FROM H.C.				THE DESIGN OF THE CORE EXIT THERMOCOUPLE

ITEM	STANDARD ACCEPTANCE PARAMETER CODE/REG. GUIDE	ALTERNATIVE ACCEPTANCE PARAMETER CODE/REG. GUIDE	CONTRACTOR DOCUMENT	REFERENCE DOCUMENT(S)	REFERENCED IN PSR, RIL, OAP	REMARKS
SYSTEMS	R.G. 1.118 REV. 2	SCHMIDT TO B.J. YOUNG-BLOOD LTD. 5/21/94 TUG-4173 (ATTACH)				SYSTEM REQUIRES THE LIFTING OF SOME LEADS FOR TESTING.
IDENTIFICATION OF DOCUMENTS RELATED TO CLASS 1E EQUIPMENT	IEEE-494			FSAR 6.3.1.4		THIS DEVIATION WAS CONSIDERED ACCEPTABLE BY THE NRC AS DOCUMENTED IN NUREG-0797 SUPP. 6, PG. 22-11.  THE WORDS "CLASS 1" ARE USED IN PLACE OF "NUCLEAR SAFETY RELATED" TO IDENTIFY SAFETY RELATED DRAWINGS AND DOCUMENTS.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 AND 11

ENCLOSURE 2 TO TXX-88135

FEBRUARY 1, 1988

## EXPLANATION OF TRT ISSUES MATRIX

The attached matrix contains a listing of the issues not closed by the TRT in SSER's 7, 8, 10 and 11. SSER 9 (protective coatings) addresses a non-safety related subject and, therefore, is not included in this matrix.

The matrix consists of four columns. The first column, Issue Source, contains a computer code (e.g. \*\*07, 07.01, \*\*07 07.04A-2) utilized for sorting purposes, the SSER number, allegation number, and associated item number. The item number is used within the computer data base for referencing purposes, and is not sequential due to the exclusion of issues closed by the TRT within the subject SSER's.

The second column, Issue, is a restatement of the allegation/concern from the associated SSER.

The third column, TRT Issue Summary, is a restatement of the test from the associated SSER relative to the TRT conclusion/position regarding the allegation/concern.

The fourth column, TUE/CPRT Resolution Documents, is a listing of the principle documents that address the issue.

### TUE/CPRT RESOLUTION DOCUMENT ACRONYMS

CAR	Corrective Action Request
CER	Collective Evaluation Report
DIR	Discrepancy/Issue Report
FSAR	Final Safety Analysis Report
ISAP	Issue Specific Action Plan
NCR	Nonconformance Report
PSR	Project Status Report
SDAR	Significant Deficiency Analysis Report
STIR	Specific Technical Issue Report



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07.01  
SSER: 07  
ALLEG: AQE-12  
ITEM: 07.01

AQE-12  
FAILURE TO FOLLOW PROCEDURES,  
SPECIFICATIONS AND DWGS.  
(AQE-25, AQE-40, AND PART OF  
AQE-12). REF. PG. J-40.

TRT

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BASED ON REVIEWS OF PERTINENT DOCUMENTATION,  
EXAMINATION OF NCR'S, AND INFORMATION OBTAINED FROM  
INTERVIEWS, TRT CONCLUDED THAT ADEQUATE PROCEDURES,  
CONTROLS, AND PROCESS CHECKS EXISTED FOR THE  
GENERATION AND DISPOSITION OF REPORTED ITEMS OF  
NONCONFORMANCE AS RELATED TO THE CONCERNS RAISED BY  
THE ALLEGATIONS. THE FINAL ACCEPTABILITY OF THIS ITEM  
BY TRT WILL BE PREDICATED ON THE SATISFACTORY RESULT  
OF THE PROGRAMMATIC REVIEW OF QA/QC CATEGORY 5,  
NONCONFORMANCE REPORTS, AND QA/QC CATEGORY 8, QC  
INSPECTION.

(REFER TO ITEM 11.04E AND 11.04F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
\*\*\*\*\*  
TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPMT RESOLUTION DOCUMENTS
** 07 07.01A SSER: 07 ALLEG: AQE-12 ITEM: 07.01A	AQE-12 CABLE TERMINATIONS NOT IN CONFORMANCE WITH DRAWINGS WERE ACCEPTED BY QUALITY CONTROL (QC) PERSONNEL. REF. PG J-27	TRT --- TRT INSPECTED 1600 TERMINATIONS AND FOUND SIX CABLES, FIVE OF WHICH WERE SAFETY-RELATED, NOT TERMINATED IN ACCORDANCE WITH CURRENT DRAWINGS. TRT CONCLUDED THAT CONCERNS EXISTED ABOUT SAFETY RELATED TERMINATIONS NOT BEING IN CONFORMANCE WITH CURRENT DRAWINGS.	ISAP(s) VII.C.2; I.A.1; I.A.2; I.A.4; I.D.1 PSR: ELECTRICAL CAR(s) 87-076, 87-039, 87-049, 106 SDAR(s) CP-85-17, 87-01, 87-49, 87-46
		ACTION REQUIRED -----	
		TU ELECTRIC SHALL REINSPECT ALL SAFETY-RELATED AND ASSOCIATED TERMINATIONS IN THE CONTROL ROOM AND IN THE TERMINATION CABINETS IN THE CABLE SPREADING ROOM TO VERIFY THAT THEIR LOCATIONS ARE IN ACCORDANCE WITH ALL CURRENT DESIGN DOCUMENTS. SHOULD THE RESULTS OF THIS REINSPECTION REVEAL AN UNACCEPTABLE LEVEL OF NONCONFORMANCE TO DESIGN DOCUMENTS, THE SCOPE OF THIS REINSPECTION EFFORT SHALL EXPANDED TO INCLUDE ALL SAFETY-RELATED AND ASSOCIATED TERMINATIONS AT COMANCHE PEAK STEAM ELECTRIC STATION (CPSES).	
		TU ELECTRIC SHALL PROVIDE ADDITIONAL QC INSPECTOR TRAINING WITH RESPECT TO THE AREAS IN WHICH NUCLEAR HEAT-SHRINKABLE SLEEVES ARE REQUIRED ON SPLICES AND ENSURE THAT (1) SUCH SLEEVES ARE INSTALLED WHERE REQUIRED, (2) ALL QC INSPECTIONS REQUIRING WITNESSING FOR SPLICES HAVE BEEN PERFORMED AND PROPERLY DOCUMENTED, AND (3) ALL BUTT SPLICES ARE PROPERLY IDENTIFIED ON THE APPROPRIATE DESIGN DRAWINGS AND ARE PHYSICALLY IDENTIFIED WITHIN THE APPROPRIATE PANELS.	
		TU ELECTRIC SHALL EVALUATE THE ADEQUACY OF THE QC INSPECTOR PROGRAM AS RELATED TO THE DEFICIENCIES IDENTIFIED TO ESTABLISH ROOT CAUSES AND APPROPRIATE CORRECTIVE ACTIONS. THESE ACTIONS SHALL BE INTEGRATED WITH OTHER ACTIONS ADDRESSED UNDER QA/QC CATEGORY 8, AS BUILT.	

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
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** 07 07.01B SSER: 07 ALLEG: AOE-12 ITEM: 07.01B	AOE-12 SOME ELECTRICAL TERMINATIONS WERE ACCEPTED BY INADEQUATELY QUALIFIED INSPECTORS. THESE TERMINATIONS DID NOT CONFORM WITH THE DRAWINGS. REF. PG J-53	See 7.07A	PSR: ELECTRICAL (REFER TO ITEM 11 BAC AND 11 B3L FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)
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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

ISAP(8) I.B.1; I.B.2; I.B.4; VII.C. APPENDIX 1, VII.C. APPENDIX 2  
PSR: ELECTRICAL  
SDAR(8) CP 87-092, 87-102  
CAR(8) 87-005, 102, 103  
STIR CPRT-E-006  
(REFER TO ITEM 11.84A FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

\*\* 07 07.02A AE-15  
SSER: 07 INSTALLED SAFETY RELATED CABLE  
ALLEG: AE-15 AND CONDUITS IN THE REACTOR  
ITEM: 07.02A CONTROL PANEL IN THE CONTROL  
ROOM DID NOT CONFORM TO  
SEPARATION CRITERIA. REF. PAGE  
J-37.

TRT  
---  
TRT CONCLUDED THAT THE INSTALLATIONS REVIEWED, IN  
GENERAL, MET ESTABLISHED SEPARATION REQUIREMENTS,  
EXCEPT FOR CERTAIN SAFETY-RELATED CABLES AND FLEXIBLE  
CONDUITS INSIDE CONTROL ROOM PANELS WHICH DID NOT MEET  
MINIMUM SEPARATION REQUIREMENTS. THE TRT FOUND NO  
EVIDENCE THAT THE LACK OF SEPARATION WAS JUSTIFIED BY  
ANALYSIS. THE LACK OF ANALYSIS TO SUBSTANTIATE THE  
ADEQUACY OF SEPARATION MAY BE AN INDICATION OF  
NEGLIGENCE IN THE QA/QC PROGRAM CONCERNING DESIGN  
CONTROL. THIS AREA IS ADDRESSED IN QA/QC CATEGORY 1,  
DESIGN CONTROL.

ACTIONS REQUIRED

TU ELECTRIC SHALL:

1. EVALUATE THE ADEQUACY OF THE QA/QC PROGRAM AS  
RELATED TO THE DEFICIENCIES IDENTIFIED ABOVE TO  
ESTABLISH ROOT CAUSES AND APPROPRIATE CORRECTIVE  
ACTIONS. THESE ACTIONS SHALL BE INTEGRATED WITH OTHER  
ACTIONS ADDRESSED UNDER ELECTRICAL AND INSTRUMENTATION  
CATEGORY 6, ELECTRICAL QC INSPECTOR TRAINING AND  
QUALIFICATIONS, QA/QC CATEGORY 8, AS BUILT, AND QA/QC  
CATEGORY 1, DESIGN PROCESS.

2. TAKE CORRECTIVE MEASURES TO PROVIDE A BARRIER  
IN AUXILIARY FEEDWATER PANEL CFI-EC-PRCB-09 SEPARATING  
REDUNDANT FLOW AND PRESSURE INSTRUMENTS.

3. TAKE CORRECTIVE ACTION TO ENSURE THAT THE  
REQUIRED MINIMUM SEPARATION OF THE REDUNDANT FIELD  
WIRING IDENTIFIED INSIDE PANEL CFI-EC-PRCB-03 IS  
MAINTAINED EITHER BY DISTANCE OR BY AN ACCEPTABLE  
BARRIER.

4. REINSPECT ALL PANELS AT COMANCHE PEAK STEAM  
ELECTRIC STATION, IN ADDITION TO THOSE IN THE MAIN  
CONTROL ROOM FOR UNITS 1 AND 2, THAT CONTAIN (1)  
REDUNDANT SAFETY-RELATED CONDUITS, OR (2) SAFETY-APPROX  
NONSAFETY-RELATED CONDUITS. TU ELECTRIC SHALL EITHER  
CORRECT EACH VIOLATION OF THE SEPARATION CRITERIA OR

TUE/CPRT RESOLUTION DOCUMENTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE ----- ISSUE ----- TRT ISSUE SUMMARY ----- TUE/CPRT RESOLUTION DOCUMENTS -----

DEMONSTRATE BY ANALYSIS THE ACCEPTABILITY OF THE CONDUIT AS A BARRIER FOR EACH CASE WHERE THE MINIMUM SEPARATION IS NOT MET. THIS ANALYSIS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN SECTION 5.6.2 OF IEEE STANDARD 384-1974. FURTHERMORE, IN THE EVENT THAT THE ACCEPTABILITY OF THE CONDUIT AS A BARRIER CANNOT BE DEMONSTRATED, TU ELECTRIC SHALL CORRECT THE ENGINEERING DRAWINGS AND RELATED DOCUMENTS TO INDICATE THE REVISED MINIMUM SEPARATION OF CONDUITS INSIDE THE PANEL FOR EACH CASE.

5. EITHER CORRECT EACH OF THE VIOLATIONS OF SEPARATION CRITERIA CONCERNING SEPARATE CABLES AND CABLES WITHIN FLEXIBLE CONDUITS FOUND IN CONTACT WITH EACH OTHER INSIDE MAIN CONTROL ROOM PANELS OR DEMONSTRATE BY ANALYSIS THE ADEQUACY OF THE FLEXIBLE CONDUIT AS A BARRIER. TU ELECTRIC SHALL ALSO REINSPECT ALL REMAINING PANELS IN THE CONTROL ROOM AND OTHER AREAS OF THE PLANT CONTAINING SEPARATE CABLES AND CABLES WITHIN FLEXIBLE CONDUIT AND SHALL MAINTAIN SEPARATION CRITERIA OR DEMONSTRATE BY ANALYSIS THE ADEQUACY OF THE FLEXIBLE CONDUIT AS A BARRIER. THIS ANALYSIS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 5.6.2 OF IEEE STANDARD 384-1974. IN THE EVENT THAT THE ACCEPTABILITY OF THE CONDUIT AS A BARRIER CANNOT BE DEMONSTRATED, TU ELECTRIC SHALL SEPARATE CABLES AND CABLES WITHIN FLEXIBLE CONDUITS BY A MINIMUM DISTANCE OF 6 INCHES, AS REQUIRED BY SECTION 5.6.2 OF IEEE STANDARD 384. FURTHERMORE, TU ELECTRIC SHALL CORRECT ALL APPROPRIATE DRAWINGS AND DOCUMENTS TO INDICATE THE REVISED MINIMUM SEPARATION.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE

TRT ISSUE SUMMARY

ISSUE

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07-02B-1 AE-20  
SSER: 07 SEPARATION REQUIREMENTS IN ELEC  
ALLEG: AE-20 ERECT SPEC FOR CABLE SPREAD RM  
ITEM: 07-02B-1 WERE INCONSISTENT W/ROOTS OF REG  
GUIDE (RG) 1.75. INSTAL OF INDEP  
SAFETY-RELATED CABLE TRYS &  
CONDUIT BTWN SAFETY-RELATED &  
NOW SAFETY-RELATED RACEMAY DIDNT  
CONFORM W/R G. 1.75. REF PG  
J-37.

TRT

TRT FOUND NO EVIDENCE THAT THE EXISTING GIBBS & HILL  
(GAR) ANALYSIS FOR ESTABLISHING THE CRITERIA FOR A  
1-INCH SEPARATION BETWEEN RIGID CONDUIT AND CABLE  
TRAYS, AS STATED IN CPSES ELECTRICAL ERECTION  
SPECIFICATION 2323-ES-100, HAD BEEN EVALUATED BY THE  
MRC STAFF FOR COMANCHE PEAK. THIS ANALYSIS SHOULD  
HAVE BEEN REFERENCED IN THE FSAR.

ACTION REQUIRED

-----  
TU ELECTRIC SHALL SUBMIT TO THE MRC THE ANALYSIS  
SUBSTANTIATING THE ACCEPTABILITY OF THE CRITERIA  
STATED IN GAR ELECTRICAL ERECTION SPECIFICATION  
GOVERNING THE SEPARATION BETWEEN SEPARATE CONDUITS AND  
CABLE TRAYS. THIS ANALYSIS SHALL BE SUPPORTED WITH THE  
NECESSARY DOCUMENTATION IN SUFFICIENT DETAIL TO  
PERFORM AN INDEPENDENT EVALUATION OF HOW THESE  
CRITERIA WERE ESTABLISHED BASED ON THE ANALYSIS.

ISAP(s) I.B.3  
FSR: ELECTRICAL  
FSAR AMENDMENT 64  
CAR(s) 07-005, 064, 102, 103  
SDAR(s) CP 86-83, 07-092, 07-102  
STIR CPRT-E-006

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 07.02B-2 AE-20 SSER: 07 ALLEG: AE-20 ITEM: 07.02B-2	SEPARATION CRITERIA BETWEEN REDUNDANT CABLE TRAYS AND CONDUITS IN THE CABLE SPREADING ROOM WERE NOT CONSISTENT WITH THE REQUIREMENTS OF THE IN-PROCESS INSPECTION PROCEDURES FOR VERIFYING ELECTRICAL SEPARATION. REF. PG. J-63.	TRT --- BASED ON THE REVIEW OF PROCEDURES FOR IN PROCESS, POST-CONSTRUCTION AND TURNOVER INSPECTIONS, TRT CONCLUDED THAT NO SIGNIFICANT CONCERNS EXISTED WITH ELECTRICAL PROCEDURES. HOWEVER, EQUIPMENT INSTALLATION PROBLEMS, AS RELATED TO NONCONFORMANCE WITH PROCEDURES, ARE BEING ADDRESSED IN THE HARDWARE-RELATED ELECTRICAL AND INSTRUMENTATION CATEGORIES. TRT, THEREFORE, CONCLUDED THAT THESE ELECTRICAL PROCEDURE-RELATED ALLEGATIONS COULD NOT BE SUBSTANTIATED.	(REFER TO ITEM 11.831 FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)
		THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING THE POST-CONSTRUCTION VERIFICATION PROGRAM ADDRESSED UNDER QA/QC CATEGORY 8, AS BUILT. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE OVERALL PROGRAMMATIC REVIEW ON THIS SUBJECT.	

COHANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

THE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.02C-2 AQE-06 ELECTRICAL INSPECTORS WERE DIRECTED BY A QC SUPERVISOR NOT TO FOLLOW INSPECTION PROCEDURES. REF. PG. J-63.

(REFER TO ITEM 11 03L FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

TRT ---  
BASED ON THE REVIEW OF PROCEDURES FOR IN-PROCESS INSPECTIONS, POST-CONSTRUCTION, AND TURBOWER INSPECTIONS, TRT CONCLUDED THAT NO SIGNIFICANT CONCERNS EXISTED WITH ELECTRICAL PROCEDURES. HOWEVER, EQUIPMENT INSTALLATION PROBLEMS, AS RELATED TO NON-COMFORMANCE WITH PROCEDURES, ARE BEING ADDRESSED IN THE NARROWARE-RELATED ELECTRICAL AND INSTRUMENTATION CATEGORIES. TRT, THEREFORE, CONCLUDED THAT THESE ELECTRICAL PROCEDURE-RELATED ALLEGATIONS COULD NOT BE SUBSTANTIATED.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING THE POST-CONSTRUCTION VERIFICATION PROGRAM (ADDRESSED) UNDER QA/QC, CATEGORY 8, AS BUILT. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE OVERALL PROGRAMMATIC REVIEW ON THIS SUBJECT.

ACTIONS REQUIRED

-----  
TU ELECTRIC SHALL EVALUATE THE ADEQUACY OF THE QA/QC PROGRAM AS RELATED TO THE DEFICIENCIES IDENTIFIED ABOVE TO ESTABLISH ROOT CAUSES AND APPROPRIATE CORRECTIVE ACTIONS. THESE ACTIONS SHALL BE INTEGRATED WITH OTHER ACTIONS ADDRESSED UNDER ELECTRICAL AND INSTRUMENTATION CATEGORY 8, ELECTRICAL QC INSPECTOR TRAINING AND QUALIFICATIONS, QA/QC CATEGORY 8, AS BUILT, AND QA/QC CATEGORY 1, DESIGN PROCESS.



COPANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

AE-51  
A CONDUIT WAS ABOUT 3 FEET BELOW  
A CABLE TRAY IN THE CONTROL ROOM  
BUILDING, PERHAPS VIOLATING  
SEPARATION CRITERIA. REF. PG.  
J-37

TRT  
---  
REQUIREMENTS IN CPSES SPECIFICATION 2323-ES-100 WERE  
ALLEGED TO BE INCONSISTENT WITH THE CRITERIA IN IEEE  
STANDARD 384-1974 AS AUGMENTED BY RG 1.75 PARTICULARLY  
REGARDING THE SEPARATION OF CABLE TRAY AND CONDUIT.  
TRT FOUND A REQUIREMENT IN THE SPECIFICATION THAT  
PERMITTED NONSAFETY-RELATED RIGID CONDUITS TO HAVE A  
MINIMUM SEPARATION OF ONE INCH FROM THE TOP OF OPEN  
SAFETY-RELATED TRAYS. THIS REQUIREMENT APPEARED TO BE  
INCONSISTENT WITH IEEE STANDARD 384-1974 AND RG 1.75.

TRT DETERMINED THAT NO INFORMATION WAS INCLUDED IN THE  
FSAR THAT SUPPORTED THE ONE INCH SEPARATION BETWEEN  
CABLE TRAYS AND CONDUITS. TRT DID, HOWEVER, REVIEW AN  
EXISTING GIBBS & HILL (G&H) ANALYSIS, INCLUDING TEST  
RESULTS, THAT WAS USED TO ESTABLISH THE REQUIREMENT IN  
SPECIFICATION 2323-ES-100 FOR THE ONE INCH SEPARATION.  
THE ANALYSIS CONCLUDED THAT RIGID CONDUITS  
CONSTITUTED AN ACCEPTABLE BARRIER BETWEEN CABLES  
INSIDE CONDUIT AND CABLES INSIDE LADDER OR OPEN TYPE  
TRAYS.

TRT FOUND NO EVIDENCE THAT THE EXISTING G&H ANALYSIS  
HAD BEEN EVALUATED BY THE NRC STAFF FOR COPANACHE PEAK.  
THE ANALYSIS SHOULD HAVE BEEN REFERENCED IN THE FSAR.

ISAP(s) I.B.3  
FSR: ELECTRICAL  
STIR CPRT-006  
CAR(s) 064, 103, 87-005, 102  
SDAR(s) CP-87-092, 87-102

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRI ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07 02H  
SSER: 07  
ALLEG: AQE-5A  
ITDM: 07 02H

AQE-34  
LADDER TYPE CABLE TRAYS SHOULD NOT QUALIFY AS BARRIERS THEREFORE, THE 1-INCH SEPARATION CRITERIA BETWEEN LADDER-TYPE TRAYS AND CONDUITS ROUTED UNDER THE TRAYS SHOULD NOT APPLY.  
REF. PG. J-37.

CR:

REQUIREMENTS IN CPSES SPECIFICATION 2323-ES-100 WERE ALLEGED TO BE INCONSISTENT WITH THE CRITERIA IN IEEE STANDARD 384-1974 AS SUPPLEMENTED BY MG 1.75 PARTICULARLY REGARDING THE SEPARATION OF CABLE TRAY AND CONDUIT.  
TRI FOUND A REQUIREMENT IN THE SPECIFICATION THAT PERMITTED UNSAFETY-RELATED RIGID CONDUITS TO HAVE A MINIMUM SEPARATION OF ONE INCH FROM THE TOP OF OPEN SAFETY-RELATED TRAYS. THIS REQUIREMENT APPEARED TO BE INCONSISTENT WITH IEEE STANDARD 384-1974 AND MG 1.75.

ISAP(\*) I.B.J  
FSR: ELECTRICAL  
STIR CPRT-E-006  
CAR(\*) 064, 103, 102, 87-005  
SDAR CF-86-83, 87-092, 87-102  
FSAR AMENDMENT 64

TRI DETERMINED THAT NO INFORMATION WAS INCLUDED IN THE FSAR THAT SUPPORTED THE ONE INCH SEPARATION BETWEEN CABLE TRAYS AND CONDUITS. TRI DID, HOWEVER, REVIEW AN EXISTING GIBBS & HILL (GAH) ANALYSIS, INCLUDING TEST RESULTS, THAT WAS USED TO ESTABLISH THE REQUIREMENT IN SPECIFICATION 2323-ES-100 FOR THE ONE INCH SEPARATION.

THE ANALYSIS CONCLUDED THAT RIGID CONDUITS CONSTITUTED AN ACCEPTABLE BARRIER BETWEEN CABLES INSIDE CONDUIT AND CABLES INSIDE LADDER OR OPEN-TYPE TRAYS.

TRI FOUND NO EVIDENCE THAT THE EXISTING GAH ANALYSIS HAD BEEN EVALUATED BY THE NRC STAFF FOR COMANCHE PEAK. THE ANALYSIS SHOULD HAVE BEEN REFERENCED IN THE FSAR.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

\*\* 07 07.03A  
SSER: 07  
ALLEG: AOE-36  
IIDM: 07.03A

AOE-36  
VENDOR INSTALLED TERMINAL LUGS  
IN GE MOTOR CONTROL CENTERS WERE  
EXCESSIVELY BENT, AND THE  
RESULTING MCR'S HAD NOT BEEN  
PROPERLY DISPOSITIONED. REF.  
PG. J-27.

ISSUE

TRT ISSUE SUMMARY

TRT

DISCOVERED 16 MCRs THAT ADDRESSED THE ALLEGATION  
REGARDING EXCESSIVELY BENT VENDOR-INSTALLED APC  
TERMINAL LUGS IN IIE GOULD-BROWN BOVERI 6.9KV  
SWITCHGEAR. MANY OF THE DISPOSITIONS OF THE  
NONCOMFORMANCE REPORTS (MCRs) DID NOT INDICATE THAT AN  
ENGINEERING EVALUATION HAD TAKEN PLACE, AND NEITHER  
MECHANICAL STRENGTH NOR ELECTRICAL CHARACTERISTICS  
WERE ADDRESSED FOR TWISTED LUGS. TRT CONCLUDED THAT  
CONCERNS EXISTED ABOUT THE ACCEPTABILITY OF  
VENDOR-INSTALLED TERMINAL LUGS IN IIE GOULD-BROWN  
BOVERI SWITCHGEAR.

ACTIONS REQUIRED

TO ELECTRIC SHALL REEVALUATE AND REDISPOSITION ALL  
MCRs RELATED TO VENDOR-INSTALLED TERMINAL LUGS IN IIE  
GOULD-BROWN BOVERI SWITCHGEAR, TAKING INTO  
CONSIDERATION THE EFFECTS OF TWISTED AS WELL AS BENT  
LUGS, AND PERFORM AND DOCUMENT THE RESULTS OF  
ENGINEERING ANALYSES TO JUSTIFY ANY RESULTING  
USE-AS-IS-DISPOSITIONS.

TUE/CPRT RESOLUTION DOCUMENTS

ISAP(s) I.A.5; VII.C, APPENDIX J  
PSR: ELECTRICAL  
(REFER TO ITEM 11.84E FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 07.04A-2 AE-13 SSER: 07 ALLEG: AE-13 ITEM: 07.04A-2 J-27	IMPROPER CABLE SPLICES EXISTED WITHIN VARIOUS PANELS. REF. PG	TRT --- THE ALLEGATION INVOLVED THE USE OF IMPROPER SIZE AND TYPE OF TERMINAL LUGS FOR CABLES IN VARIOUS PANELS AND THE USE OF BUTT SPLICES IN PANELS THAT COULD BE IN VIOLATION OF REGULATORY REQUIREMENTS AND SITE PROCEDURES. THE CONCERN ABOUT TERMINAL LUGS IS DISCUSSED UNDER ITEM 07.04A-1. THE CONCERN ABOUT BUTT SPLICES IS DISCUSSED BELOW.  MRC STAFF REVIEWED TU ELECTRIC'S JUSTIFICATION FOR PERMITTING BUTT SPLICES IN PANELS AND CONCLUDED THAT THE PRACTICE IS ACCEPTABLE ON A LIMITED BASIS PROVIDED OPERABILITY OF CIRCUITS IS VERIFIED, WIRE SPLICES ARE QUALIFIED, AND SPLICES ARE STAGGERED. TRT INSPECTED BUTT SPLICES IN SAFETY RELATED PANELS AND FOUND THE SPLICES TO BE IN CONFORMANCE WITH TU ELECTRIC'S PROCEDURAL REQUIREMENTS, EXCEPT THAT HEAT-SHRINKABLE CABLE INSULATION SLEEVES WERE NOT INSTALLED AS REQUIRED ON 600 VOLT CONTROL AND INSTRUMENTATION CONNECTIONS. THE CONCERN ABOUT HEAT-SHRINKABLE SLEEVES IS DISCUSSED UNDER ITEM 07.04C-3. PROCEDURES DID NOT REQUIRE CHECKS FOR OPERABILITY, QUALIFICATION OF SPLICES, AND STAGGERING OF SPLICES. A REVIEW OF QC INSPECTION REPORTS SHOWED THAT THE WITNESSING OF SPLICES HAD NOT BEEN DOCUMENTED IN ALL CASES AS REQUIRED. THIS CONCERN IS DISCUSSED UNDER ITEM 07.07A.	ISAP(*) I.A.2; I.A.3; VII.C, APPENDIX 3 PSR: ELECTRICAL CAR(*) 050, 063, 092 SDAR CP-86-03

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 07.04B-1 AE-10 SSER: 07 ALLEG: AE-10 ITEM: 07.04B-1	07.04B-1 AE-10 CABLES WERE BUTT SPLICED INSIDE PANELS IN VIOLATION OF PROCEDURES. REF. PG. J-27.	TRT --- THE ALLEGATION INVOLVED BUTT SPLICES IN PANELS THAT COULD BE IN VIOLATION OF REGULATORY REQUIREMENTS AND SITE PROCEDURES. AMENDMENT 44 TO THE FSAR ALLOWED BUTT SPLICES IN PANELS ON A LIMITED BASIS. THE NRC STAFF REVIEWED TU ELECTPIC'S JUSTIFICATION FOR PERMITTING BUTT SPLICES IN PANELS AND CONCLUDED THAT THE PRACTICE IS ACCEPTABLE ON A LIMITED BASIS PROVIDED THE OPERABILITY OF THE CIRCUITS IS VERIFIED, SPLICES ARE QUALIFIED, AND SPLICES ARE STAGGERED WITHIN PANELS.  ACTIONS REQUIRED ----- TU ELECTRIC SHALL DEVELOP ADEQUATE INSTALLATION AND INSPECTION PROCEDURES TO REINSPECT ALL EXISTING BUTT SPlice TO ENSURE (1) THE OPERABILITY OF THOSE CIRCUITS THAT CONTAIN BUTT SPLICES IN PANELS, (2) THAT THE WIRE SPLICING MATERIALS AND METHODS USED ARE QUALIFIED FOR ANTICIPATED SERVICE CONDITIONS, AND (3) THAT SPLICES ARE STAGGERED WITHIN THE PANEL SO THAT THEY ARE NOT ADJACENT TO EACH OTHER IN THE SAME BUNDLE.	ISAP(e) I.A.2; I.A.3; VII.C, APPENDIX 3 PSR: ELECTRICAL CAR(e) 063, 050 SDAR(e) CP-86-038, 87-113, STIR CPE-E-004

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TRT ISSUES -- SSES# 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.04C-1 AE-22  
SSES: 07 CABLE BUTT SPLICES EXISTED IN  
ALLEG: AE-22 PANELS WITHOUT AUTHORIZATION OR  
ITEM: 07.04C-1 DOCUMENTATION ON DRAWINGS. REF.  
PG. J-27.

TRT  
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THE ALLEGATION INVOLVED BUTT SPLICES IN PANELS THAT  
COULD HAVE BEEN INSTALLED WITHOUT AUTHORIZATION OR  
DOCUMENTATION ON DRAWINGS. AMENDMENT 44 TO THE FSAR  
ALLOWED BUTT SPLICES IN PANELS ON A LIMITED BASIS. THE  
MNC STAFF REVIEWED TO ELECTRIC'S JUSTIFICATION FOR  
PERMITTING BUTT SPLICES IN PANELS AND CONCLUDED THAT  
THE PRACTICE IS ACCEPTABLE ON A LIMITED BASIS PROVIDED  
THE OPERABILITY OF CIRCUITS IS VERIFIED, SPLICES ARE  
QUALIFIED, AND SPLICES ARE STAGGERED WITHIN PANELS.

ISAP(8) I. A. 2: VII. C. APPENDIX 3  
FSR: ELECTRICAL  
CAR(8) 050, 063, STIR CPE-E-004

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 07 04C-3 AE-13 SSER: 07 ALLEG: AE-13 ITDH: 07 04C-3	ALL SPLICES INSPECTED WERE MISSING NUCLEAR HEAT-SHRINKABLE CABLE INS SLEEVES AS REQ. BY PROCEDURE FOR 600-V CONTROL & INSTR CONNECTIONS. REF PG J-29	TRT --- IN THE PROCESS OF INVESTIGATING AE-13, AE-18, AND AE-22, TRT FOUND THAT SPLICES WERE MISSING HEAT-SHRINKABLE CABLE INSULATION SLEEVES WHICH WERE REQUIRED FOR 600 VOLT CONTROL AND INSTRUMENTATION CONNECTIONS.	ISAP(s) I.A.1; I.A.4; VII.C, APPENDIX 3 PSR: ELECTRICAL CAR(s) 063, 070, 092. SDAR(s) CP-86-J8 STIR CPRT-E-003

COPANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07.05A  
SSER: 07  
ALLEG: AGE-10  
ITEM: 07.05A

AGE-10  
CRAFTSMEN INSTALLING CONDUIT  
SUPPORTS WERE NOT PROPERLY  
TRAINED, THUS NECESSITATING  
EXTENSIVE REMED. REF. PG.  
J-33.

TRT  
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TRT CONCLUDED THAT THIS CONCERN MAY BE INDICATIVE OF  
POOR TRAINING IN THE AREA OF PROCEDURAL REQUIREMENTS.

ACTIONS REQUIRED

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TU ELECTRIC SHALL EVALUATE THE ADEQUACY OF CRAFT  
PERSONNEL TRAINING IN THE USE OF INSTALLATION MANUALS  
TO ESTABLISH ROOT CAUSES AND APPROPRIATE CORRECTIVE  
ACTIONS. THIS ACTION SHALL BE INTEGRATED WITH OTHER  
ACTIONS CONCERNING CRAFT PERSONNEL TRAINING ADDRESSED  
UNDER QA/QC CATEGORY 8, AS BUILT.

(REFER TO ITEM 11.84D AND 11.83L FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)  
COLLECTIVE EVALUATION REPORT PART III



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSES# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPMT RESOLUTION DOCUMENTS

\*\* 07 07.06  
SSE# 07  
ALLEG: AE-17  
ITEM: 07.06

AE-17  
FIELD RUN CONDUIT, DRYWALL, AND  
LIGHTING INSTALLED ABOVE CONTROL  
ROOM PANELS WERE CLASSIFIED  
NONSEISMIC AND INADEQUATELY  
SUPPORTED. REF. PG. J-45

TRT  
---

TRT INSPECTED THE CONDUIT INSTALLATION ABOVE THE  
CONTROL ROOM CEILING AND DETERMINED THAT  
SAFETY-RELATED CONDUIT WAS FASTENED BY SEISMIC  
CATEGORY I SUPPORTS TYPICAL OF THOSE IN OTHER AREAS OF  
THE PLANT. NONSAFETY-RELATED CONDUIT THAT WAS NOT  
GREATER THAN TWO INCHES IN DIAMETER, WAS NOT SUPPORTED  
BY SEISMIC CATEGORY I SUPPORTS AND DID NOT HAVE  
SEISMIC CATEGORY II CABLE RESTRAINTS. THIS  
INSTALLATION WAS CONSISTENT WITH OTHER SUCH  
NONSAFETY-RELATED CONDUIT IN THE PLANT. THE  
APPLICABLE DRAWING DID NOT REQUIRE SEISMIC CATEGORY II  
CABLE RESTRAINTS FOR THIS TYPE OF CONDUIT  
INSTALLATION.

ISAP I.C. II.D, APPENDIX 4  
PSR: CIVIL  
STIR CPMT-5-006, 007, 008, 009, 011, 012, 013, 016, 018  
SDAR(n) CP 84-31, 86-54  
(REFER TO I/TN 11.84A FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

TRT FOUND THAT THE SUSPENDED CEILING ABOVE THE CENTRAL  
PART OF THE CONTROL ROOM WAS SUPPORTED BY A METAL  
FRAMEWORK ATTACHED TO PRIMARY BUILDING CONCRETE. THE  
FRAMEWORK WAS ALSO ATTACHED TO THE CONCRETE WITH A  
SYSTEM OF STEEL CABLES. THE CABLES WOULD HOLD THE  
WEIGHT OF THE FRAMING AND DRYWALL IF THE FRAMEWORK  
FAILED DURING A SEISMIC EVENT.

TRT FOUND THAT LIGHTING FIXTURES WERE SUPPORTED FROM  
AN INTERMEDIATE SUBSTRUCTURE BY LIGHT-WEIGHT CONDUIT.  
THE SUBSTRUCTURE WAS ALSO SUPPORTED FROM THE PRIMARY  
BUILDING CEILING BY LIGHT-WEIGHT CONDUIT. PARALLEL  
WITH EACH SUPPORT CONDUIT WERE TWO STEEL CABLES WHICH  
WOULD ASSUME THE LOAD IF THE SUPPORT CONDUIT OR ITS  
ATTACHMENT WERE TO FAIL.

TRT CONCLUDED THAT THE INSTALLATION OF  
NONSAFETY-RELATED CONDUIT IN THE CONTROL ROOM APPEARED  
TO BE INCONSISTENT WITH RG 1.29. THE ACCEPTABILITY OF  
THE SUSPENDED CEILING AND LIGHTING SUPPORTS WAS  
DEPENDENT ON THE ANALYSIS OF SEISMIC CATEGORY II  
RESTRAINTS TO BE PROVIDED BY TU ELECTRIC.

ACTION REQUIRED  
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TU ELECTRIC SHALL:

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)  
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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPMT RESOLUTION DOCUMENTS

1. PROVIDE THE TRT WITH ANALYSES THAT SUBSTANTIATE (1) THE ADEQUACY OF THE OVERALL SEISMIC SUPPORT SYSTEM INSTALLATION FOR ALL THE ITEMS LOCATED ABOVE THE CEILING IN THE CONTROL ROOM, INCLUDING NONSAFETY-RELATED CONDUIT, SUSPENDED CEILING, AND LIGHTING FIXTURES AND (2) THE ADEQUACY OF THE SEISMIC SUPPORT SYSTEM INSTALLATION FOR NONSAFETY-RELATED CONDUIT IN SEISMIC CATEGORY I AREAS OF THE PLANT OTHER THAN THE CONTROL ROOM. THIS ACTION SHALL BE INTEGRATED AS APPROPRIATE WITH OTHER ACTIONS ADDRESSED UNDER CIVIL AND STRUCTURAL CATEGORY 14, SEISMIC DESIGN OF CONTROL ROOM CEILING ELEMENTS.

2. EVALUATE THE ADEQUACY OF THE QA/QC PROGRAM RELATED TO THE DEFICIENCIES IDENTIFIED ABOVE TO ESTABLISH ROOT CAUSES AND APPROPRIATE ACTIONS. THESE ACTIONS SHOULD BE INTEGRATED WITH OTHER ACTIONS ADDRESSED UNDER THE QA/QC CATEGORY I, DESIGN PROCESS.

3. PROVIDE THE RESULTS OF SEISMIC DESIGN THAT DEMONSTRATE THAT THE NONSEISMIC ITEMS IN THE CONTROL ROOM (OTHER THAN THE SLOPING SUSPENDED DRYWALL CEILING) SATISFY THE PROVISIONS OF REGULATORY GUIDE 1.29 AND FSAR SECTION 3.7B.2.8.

4. PROVIDE AN EVALUATION OF SEISMIC DESIGN ADEQUACY OF SUPPORT SYSTEMS FOR THE LIGHTING FIXTURES (SEISMIC CATEGORY II) AND THE SUSPENDED DRYWALL CEILING (NONSEISMIC ITEM WITH MODIFICATION WHICH ACCOUNTS FOR PERTINENT FLOOR RESPONSE CHARACTERISTICS OF THE SYSTEMS).

5. VERIFY THAT THOSE ITEMS IN THE CONTROL ROOM CEILING NOT INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF REGULATORY GUIDE 1.29 SATISFY APPLICABLE DESIGN REQUIREMENTS.

6. PROVIDE THE RESULTS OF AN ANALYSIS THAT JUSTIFY THE ADEQUACY OF THE NONSAFETY-RELATED CONDUIT SUPPORT SYSTEM IN THE CONTROL ROOM FOR CONDUIT WHOSE DIAMETER IS TWO INCHES OR LESS.

7. PROVIDE THE RESULTS OF AN ANALYSIS THAT

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE ----- ISSUE ----- TRT ISSUE SUMMARY ----- TUE/CPRT RESOLUTION DOCUMENTS -----

DEMONSTRATE THAT THE FOREGOING PROBLEMS ARE NOT APPLICABLE TO OTHER CATEGORY II AND NONSEISMIC STRUCTURES, SYSTEMS, AND COMPONENTS ELSEWHERE IN THE PLANT.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

\*\* 07 07 07A  
SSER: 07  
ALLEG: AQE-08  
ITEM: 07 07A

AQE-08  
SOME ELECTRICAL INSPECTORS WERE NOT ADEQUATELY QUALIFIED, WERE GIVEN HELP TO PASS THEIR CERTIFICATION TESTS, AND HAD INCORRECT DESCRIPTIONS OF PRIOR ELECTRICAL OR INSPECTION EXPERIENCE ON THEIR EMPLOYMENT APPLICATIONS. REF. PG. J-55.

TUE/CPRT RESOLUTION DOCUMENTS

TRT

ISAP I. D. 2. I. D. 1  
(REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

BASED ON A REVIEW OF PERTINENT DOCUMENTATION AND INTERVIEWS, TRT CONCLUDED THAT EVIDENCE INDICATED THAT THE ELECTRICAL QC INSPECTOR QUALIFICATION PROGRAM LACKED PROGRAMMATIC CONTROLS WHICH MAY BE INDICATIVE THAT THE REQUIRED LEVEL OF QUALIFICATION WAS NOT OBTAINED FOR SOME ELECTRICAL QA INSPECTORS. BECAUSE THE TRAINING AND CERTIFICATION PROGRAM WAS THE SAME FOR ALL DISCIPLINES, EXCEPT ASME, TRT CONCLUDED THAT THE DEFICIENCIES IN PROCEDURAL REQUIREMENTS AND GUIDELINES IN THE TESTING PROGRAM AND THE LACK OF DOCUMENTATION IN ISOLATED CASES HAVE GENERIC IMPLICATIONS TO OTHER CONSTRUCTION DISCIPLINES. THE IMPLICATIONS OF TRT FINDINGS WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF QC INSPECTOR TRAINING AND QUALIFICATION UNDER QA/QC CATEGORY 4, TRAINING AND QUALIFICATION.

ACTIONS REQUIRED

TU ELECTRIC SHALL:

1. JUSTIFY THE ALLOWANCES IN THE PROCEDURE FOR ADMINISTERING SEPARATE (WAIVER) VISION TESTS IN LIEU OF EXAMINATIONS ADMINISTERED BY AN INDEPENDENT PROFESSIONAL EYE SPECIALIST.

2. EVALUATE THE QC TESTING PROGRAM FOR QC ELECTRICAL INSPECTOR QUALIFICATIONS AND DEVELOP A TESTING PROGRAM WHICH OPTIMIZES ADMINISTRATIVE GUIDELINES, PROCEDURAL REQUIREMENTS, AND TEST FLEXIBILITY (e.g., COMPUTER-GENERATED TESTS) TO ASSURE THAT SUITABLE PROFICIENCY IS ACHIEVED AND MAINTAINED. THESE GUIDELINES AND/OR PROCEDURES SHALL INCLUDE SUCH ITEMS AS SCORING, RETESTS, AND QUESTION DISQUALIFICATION.

3. REVIEW ALL ELECTRICAL QC INSPECTOR TRAINING, QUALIFICATION, CERTIFICATION AND RECERTIFICATION FILES AGAINST THE PROJECT REQUIREMENTS AS DOCUMENTED IN THE FSAR, AND PROVIDE THE INFORMATION IN SUCH A FORM THAT EACH REQUIREMENT IS CLEARLY SHOWN TO HAVE BEEN MET BY

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TRT ISSUES -- SSER# 07, 08, 10 and 11

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ISSUE SOURCE ----- ISSUE ----- TRT ISSUE SUMMARY ----- TRT/CPRT RESOLUTION DOCUMENTS -----

EACH INSPECTOR. IF AN INSPECTOR IS FOUND TO NOT MEET THE TRAINING, QUALIFICATION, CERTIFICATION, OR RECERTIFICATION REQUIREMENTS, TU ELECTRIC SHALL THEN REVIEW THE RECORDS TO DETERMINE THE ADEQUACY OF INSPECTIONS MADE BY UNQUALIFIED INDIVIDUALS AND PROVIDE A STATEMENT ON THE IMPACT OF THE DEFICIENCIES NOTED ON THE SAFETY OF THE PROJECT.

4. INTEGRATE ACTIONS UNDER PARAGRAPH 1, 2, AND 3 ABOVE, AS APPROPRIATE, WITH OTHER ACTIONS ADDRESSED UNDER QA/QC CATEGORY 4, TRAINING AND QUALIFICATIONS.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 07 07B-2 AQE-04 SSER: 07 UNQUALIFIED INSPECTORS WERE TOLD ALLEG: AQE-04 TO CLOSE-OUT MCR'S. REF. PG. ITEM: 07 07B-2 J-55.		<p>THT --- BASED ON A REVIEW OF PERTINENT DOCUMENTATION AND INTERVIEWS, TRT CONCLUDED THAT EVIDENCE INDICATED THAT THE ELECTRICAL QC INSPECTOR QUALIFICATION PROGRAM LACKED PROGRAMMATIC CONTROLS WHICH MAY BE INDICATIVE THAT THE REQUIRED LEVEL OF QUALIFICATION WAS NOT OBTAINED FOR SOME ELECTRICAL QA INSPECTORS. BECAUSE THE TRAINING AND CERTIFICATION PROGRAM WAS THE SAME FOR ALL DISCIPLINES, EXCEPT ASME, TRT CONCLUDED THAT THE DEFICIENCIES IN PROCEDURAL REQUIREMENTS AND GUIDELINES IN THE TESTING PROGRAM AND THE LACK OF DOCUMENTATION IN ISOLATED CASES HAVE GENERIC IMPLICATIONS TO OTHER CONSTRUCTION DISCIPLINES. THE IMPLICATIONS OF TRT FINDINGS WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF QC INSPECTOR TRAINING AND QUALIFICATION UNDER QA/QC CATEGORY 4. TRAINING AND QUALIFICATION.</p>	ISAP(e) I.D.1; I.D.2 (REFER TO ITEM 11 84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COPARCHE PEAK STEAM ELECTRIC STATION (CPSIES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.08A  
 SSER: 07  
 ALLEG: AQE-01  
 ITEM: 07.08A

AQE-01  
 AN ELECTRICAL INSPECTOR WAS  
 PRESSED NOT TO WRITE  
 NONCOMFORMANCE REPORTS (NCRs) IN  
 SEVERAL INSTANCES. IN ONE CASE,  
 A QC SUPERVISOR INSTRUCTED HIM  
 NOT TO WRITE AN NCR FOR CONTROL  
 ROOM CABLES THAT WERE REMOVED  
 WITHOUT PROPER DOCUMENTATION.  
 REF. PG. J-50.

TRT  
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 THE ALLEGATION OF IMPROPER DOCUMENTATION OF CABLE  
 REMOVAL COULD NOT BE SUBSTANTIATED, BECAUSE IN ITS  
 REVIEW OF A RANDOM SAMPLE OF 75 NCRs ON THESE ISSUES,  
 TRT COULD NOT IDENTIFY ANY INCONSISTENCIES OR  
 DEFICIENCIES THAT WOULD RAISE A SAFETY QUESTION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
 ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
 ALL NCRs, ADDRESSED UNDER QA/QC CATEGORY 5,  
 NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
 INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
 EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
 RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE  
 SUBJECTS.

(REFER TO ITEM 11.04E AND 11.04F FOR LISTING OF RESOLUTION  
 DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COPANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TUE/CPT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.088 AQE-02  
SSER: 07 A CABLE WAS REMOVED FROM THE  
ALLEG: AQE-02 SAFEGUARDS BUILDING WITHOUT  
ITD#: 07.088 PROPER DOCUMENTATION. AN MCR  
WAS PREPARED, BUT IT WAS  
UNCERTAIN WHETHER THAT MCR WAS  
FULLY GENERATED, PROCESSED, AND  
DISPOSITIONED. REF. PG. J-50.

TRT  
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THE ALLEGATION OF IMPROPER DOCUMENTATION OF CABLE  
REMOVAL COULD NOT BE SUBSTANTIATED, BECAUSE IN THE  
REVIEW OF A RANDOM SAMPLE OF 75 MCRs ON THESE ISSUES,  
TRT COULD NOT IDENTIFY ANY INCONSISTENCIES OR  
DEFICIENCIES THAT WOULD RAISE A SAFETY QUESTION. TRT  
CONCLUDED THAT ADEQUATE PROCEDURES, CONTROLS, AND  
PROCESS CHECKS EXISTED FOR THE GENERATION AND  
DISPOSITION OF REPORTED ITEMS OF NONCOMFORMANCE AS  
RELATED TO THE CONCERNS RAISED BY THE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
ALL MCRs, ADDRESSED UNDER QA/QC CATEGORY 5,  
NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE  
SUBJECTS.

(REFER TO ITEM 11.84E AND 11.84F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)



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TRT ISSUES -- S5EB# 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS  
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TRT ISSUE SUMMARY  
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ISSUE  
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ISSUE SOURCE  
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AOE-03

AN INSPECTOR WAS TOLD TO  
CLOSE-OUT AN MCR THAT DESCRIBED  
REPAIR OF A FLEXIBLE CONDUIT IN  
THE FUEL HANDLING BUILDING WHEN  
THE CONDUIT HAD BEEN REPLACED  
RATHER THAN REPAIRED. REF. PG.  
J-49.

\*\* 07 07 08C  
S5EB: 07  
ALLEG: AOE-03  
ITDM: 07 08C

TRT  
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TRT INTERVIEWED A TU ELECTRIC ELECTRICAL ENGINEER  
ABOUT DISPOSITIONS OF WORKPERFORMANCE REPORTS (MCR#)  
WITH RESPECT TO REPLACE VERSUS REPAIR AND "COMPROMISED  
WORKMANSHIP" (AOE-48). TRT DETERMINED THAT REPLACING A  
REPORTED ITEM INSTEAD OF REPAIRING IT AS ORIGINALLY  
DISPOSITIONED WOULD REQUIRE A REVISION TO THE ORIGINAL  
MCR. THE DISPOSITION OF THE MCR FOR REPLACEMENT WOULD  
BE BASED ON AN ENGINEERING EVALUATION. TRT DETERMINED  
THAT ON A CASE-BY-CASE BASIS WHERE WORKMANSHIP MIGHT  
HAVE BEEN COMPROMISED, THE INSPECTING ENGINEER WOULD  
APPLY ENGINEERING JUDGMENT TO DETERMINE THAT THE  
QUALITY OF WORKMANSHIP DID NOT DEGRADE THE  
INSTALLATION BELOW AN ACCEPTABLE LEVEL. FROM THE 75  
MCR# EXAMINED, TRT COULD NOT FIND ANY EVIDENCE OF  
UNACCEPTABLE INSTALLATION. TRT CONCLUDED THAT ADEQUATE  
PROCEDURES, CONTROLS, AND PROCESS CHECKS EXISTED FOR  
THE GENERATION AND DISPOSITION OF REPORTED ITEMS OF  
WORKPERFORMANCE AS RELATED TO THE CONCERNS RAISED BY  
THE ABOVE ALLEGATION

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
ALL MCR#, ADDRESSED UNDER QA/QC CATEGORY 3,  
WORKPERFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE  
SUBJECTS.

(REFER TO ITDM 11 04E AND 11 04F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

TRT ISSUE SUMMARY

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.08E  
SSER: 07  
ALLEG: AQE-25  
ITEM: 07.08E

AQE-25  
ELECTRICAL QC INSPECTORS WERE  
REQUIRED TO SUBMIT DRAFT MCRs TO  
THEIR SUPERVISORS FOR APPROVAL  
IN CONTRADICTION OF SITE  
PROCEDURES. REF PG. J-49.

TRT  
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THE ALLEGATION OF FAILURE TO FOLLOW PROCEDURES AND SPECIFICATIONS (AQE-25 AND AQE-40) COULD NOT BE SUBSTANTIATED, BECAUSE IN THE REVIEW OF A RANDOM SAMPLE OF 75 NONCOMFORMANCE REPORTS (MCRs) ON THESE ISSUES, TRT COULD NOT IDENTIFY ANY INCONSISTENCIES OR DEFICIENCIES THAT WOULD RAISE A SAFETY QUESTION. TRT CONCLUDED THAT ADEQUATE PROCEDURES, CONTROLS, AND PROCESS CHECKS EXISTED FOR THE GENERATION AND DISPOSITION OF REPORTED ITEMS OF NONCOMFORMANCE REPORTS, AS RELATED TO THE CONCERNS RAISED BY THIS ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF ALL MCRs, ADDRESSED UNDER QA/QC CATEGORY 5. NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC INSPECTION THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE SUBJECTS.

(REFER TO ITEM 11.04E AND 11.04F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

TUE/CPRT RESOLUTION DOCUMENTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.08F AGE-33  
SSER: 07 THERE WERE PREVALENT USE-AS-13  
ALLEG: AGE-33 DISPOSITIONS WRITTEN FOR MCRS  
ITEM: 07.08F GENERATED WITH RESPECT TO THE  
ELECTRICAL ERECTION  
SPECIFICATION. REF. PG. J-49.

TRT  
---  
OF THE 75 NONCOMFORMANCE REPORTS (MCRs) EXAMINED, TRT  
COULD IDENTIFY NO USE-AS-13 DISPOSITIONS THAT DEVIATED  
FROM APPLICABLE DESIGN REQUIREMENTS, EXCEPT FOR THOSE  
IDENTIFIED IN ELECTRICAL AND INSTRUMENTATION CATEGORY  
1, ELECTRICAL CABLE TERMINATIONS, AND ELECTRICAL AND  
INSTRUMENTATION CATEGORY 2, ELECTRICAL CABLE TRAY AND  
CONDUIT INSTALLATION. THE EXCEPTIONS CONCERNED MCRs ON  
BENT TERMINAL LUGS IN MOTOR CONTROL CENTERS (PART OF  
AGE-36) AND TWO LOOSE CONDUIT ELBOW FITTINGS (PART OF  
AE-27). TRT CONCLUDED THAT ADEQUATE PROCEDURES,  
CONTROLS, AND PROCESS CHECKS EXISTED FOR THE  
GENERATION AND DISPOSITION OF REPORTED ITEMS OF  
NONCOMFORMANCE AS RELATED TO THE CONCERNS RAISED BY  
THE ABOVE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
ALL MCRs, ADDRESSED UNDER QA/QC CATEGORY 5.  
NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
RESULT OF THE OVERALL PROGRAMMATIC REVIEW OF THESE  
SUBJECTS.

(REFER TO ITEM 11.84E AND 11.84F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

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TUE/CPRT RESOLUTION DOCUMENTS  
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TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07 08G  
SSER: 07  
ALLEG: AGE-34  
ITDM: 07 08G

AGE-34  
A CABLE JACKET WAS DAMAGED WHEN  
A BISCO SEAL WAS REMOVED USING A  
THREADED ROD. THE RESULTING MCR  
WAS DISPOSITIONED USE-AS-13.  
REF. PG. J-49.

TRT

---  
OF THE 75 NONCOMFORMANCE REPORTS (MCR#) EXAMINED, TRT  
COULD IDENTIFY NO USE-AS-13 DISPOSITIONS WHICH  
DEVIATED FROM APPLICABLE DESIGN REQUIREMENTS, EXCEPT  
FOR THOSE IDENTIFIED IN ELECTRICAL AND INSTRUMENTATION  
CATEGORY 1, ELECTRICAL CABLE TERMINATIONS, AND  
ELECTRICAL AND INSTRUMENTATION CATEGORY 2, ELECTRICAL  
CABLE TRAY AND CONDUIT INSTALLATION. THE EXCEPTIONS  
CONCERNED MCR# ON BENT TERMINAL LUGS IN MOTOR CONTROL  
CENTERS (PART OF AGE-36) AND TWO LOOSE CONDUIT ELBOW  
FITTINGS (PART OF AE-27). TRT CONCLUDED THAT ADEQUATE  
PROCEDURES, CONTROLS, AND PROCESS CHECKS EXISTED FOR  
THE GENERATION AND DISPOSITION OF REPORTED ITEMS OF  
NONCOMFORMANCE AS RELATED TO THE CONCERNS RAISED BY  
THE ABOVE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
ALL MCR#, ADDRESSED UNDER QA/QC CATEGORY 5,  
NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE  
SUBJECTS.

THE RESULTS OF THE TRT REVIEW OF MEM INFORMATION  
CONCERNING ALLEGATION AGE-34, WILL ALSO BE REPORTED IN  
A SUPPLEMENT TO THIS SSER. (CLOSED BY MRC IN ITS  
JANUARY 21, 1988 LETTER)

(REFER TO ITDM 11.84E AND 11.84F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COPANACHE PEAK STEAK ELECTRIC STATION (CPSES)  
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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE                      ISSUE                      TRT ISSUE SUMMARY                      TRT/CPIRT RESOLUTION DOCUMENTS

\*\* 07 07.088                      AQE-35  
SSER: 07                      MOM-Q FUSE BLOCKS WERE INSTALLED  
ALLEG: AQE-35                      WHERE Q BLOCKS WERE REQUIRED.  
ITEM: 07.088                      THE MCR WAS DISPOSITIONED  
  BLOCKS WERE ORDERED UNDER THE  
  SAME MATERIAL SPECIFICATION.  
  REF. PG. J-48.

TRT  
---  
OF THE 75 NONCONFORMANCE REPORTS (MCRs) EXAMINED, TRT  
COULD IDENTIFY NO USE-AS-IS DISPOSITIONS THAT DEVIATED  
FROM APPLICABLE DESIGN REQUIREMENTS, EXCEPT FOR THOSE  
IDENTIFIED IN ELECTRICAL AND INSTRUMENTATION CATEGORY  
1, ELECTRICAL CABLE TERMINATIONS, AND ELECTRICAL AND  
INSTRUMENTATION CATEGORY 2, ELECTRICAL CABLE TRAY AND  
CONDUIT INSTALLATION. THE EXCEPTIONS CONCERNED MCRs ON  
BENT TERMINAL LUGS IN MOTOR CONTROL CENTERS (PART OF  
AQE-35) AND TWO LOOSE CONDUIT ELBOW FITTINGS (PART OF  
AE-27). TRT CONCLUDED THAT ADEQUATE PROCEDURES,  
CONTROLS, AND PROCESS CHECKS EXISTED FOR THE  
GENERATION AND DISPOSITION OF REPORTED ITEMS OF  
NONCONFORMANCE AS RELATED TO THE CONCERNS RAISED BY  
THE ABOVE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
ALL MCRs, ADDRESSED UNDER QA/QC CATEGORY 3,  
NONCONFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
INSPECTION THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE  
SUBJECTS.

THE RESULTS OF THE TRT REVIEW OF NEW INFORMATION  
CONCERNING ALLEGATION AQE-35 WILL ALSO BE REPORTED IN  
A SUPPLEMENT TO THIS SSER. (CLOSED BY RMC IN ITS  
JANUARY 21, 1988 LETTER)

(REFER TO ITEM 11.04E AND 11.04F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07.081 AQE-37

SSER: 07 THE DISPOSITIONS OF MCRs  
ALLEG: AQE-37 INVOLVING REMARK OF TERMINAL  
ITEM: 07.081 BLOCKS WERE QUESTIONABLE. REF.  
PG. J-50.

TRT

---  
THE ALLEGATION OF REMARK OF TERMINAL BLOCKS (AQE-37) COULD NOT BE SUBSTANTIATED, BECAUSE IN THE REVIEW OF A RANDOM SAMPLE OF 75 NONCOMFORMANCE REPORTS (MCRs) ON THESE ISSUES, TRT COULD NOT IDENTIFY ANY INCONSISTENCIES OR DEFICIENCIES THAT WOULD RAISE A SAFETY QUESTION. THESE FINDINGS WERE DISCUSSED WITH SOME OF THE INDIVIDUALS RESPONSIBLE FOR RAISING THESE CONCERNS, ONE OF WHOM DISAGREED WITH THE TRT DETERMINATION CONCERNING AQE-37 AND PROVIDED ADDITIONAL INFORMATION. TRT IS CURRENTLY EVALUATING THIS NEW INFORMATION AND WILL REPORT THE RESULTS IN A SUPPLEMENT TO THIS SSER. TRT CONCLUDED THAT ADEQUATE PROCEDURES, CONTROLS, AND PROCESS CHECKS EXISTED FOR THE GENERATION AND DISPOSITION OF REPORTED ITEMS OF NONCOMFORMANCE AS RELATED TO THE CONCERNS RAISED BY THE ABOVE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF ALL MCRs, ADDRESSED UNDER QA/QC CATEGORY 5, NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE SUBJECTS.

(REFER TO ITEM 11.84E AND 11.84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TRT/CPRT RESOLUTION DOCUMENTS

\*\* 07 07 08K AQE-40  
SSER: 07 SOME MCRS WERE CLOSED OUT BY  
ALLEG: AQE-40 STATING THAT THE NONCOMFORMING  
ITEM: 07 08K CONDITION WAS NOT ADDRESSED IN  
THE ELECTRICAL ERECTION  
SPECIFICATION. REF. PG. J-40.

TRT  
---  
THE ALLEGATIONS OF FAILURE TO FOLLOW PROCEDURES AND SPECIFICATIONS (AQE-25 AND AQE-40) COULD NOT BE SUBSTANTIATED, BECAUSE IN THE REVIEW OF A RANDOM SAMPLE OF 75 NONCOMFORMANCE REPORTS (MCRs) ON THESE ISSUES, TRT COULD NOT IDENTIFY ANY INCONSISTENCIES OR DEFICIENCIES THAT WOULD RAISE A SAFETY QUESTION. TRT CONCLUDED THAT ADEQUATE PROCEDURES, CONTROLS, AND PROCESS CHECKS EXISTED FOR THE GENERATION AND DISPOSITION OF REPORTED ITEMS OF NONCOMFORMANCE AS RELATED TO THE CONCERNS RAISED BY THE ABOVE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF ALL MCRs, ADDRESSED UNDER QA/QC CATEGORY 5, NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE SUBJECTS.

(REFER TO ITEM 11 04E AND 11 04F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.08M AGE-45  
SSER: 07 THERE WERE QUESTIONABLE  
ALLEG: AGE-45 DISPOSITIONS FOR MCRS INVOLVING  
ITEM: 07.08M INADEQUATE THREAD ENGAGEMENT  
BETWEEN A CONDUIT FITTING AND  
DAMAGED CABLE. REF. PG. J-48.

TRT

---  
THE ALLEGATIONS OF DAMAGED CABLE DUE TO INADEQUATE  
THREAD ENGAGEMENT ON A CONDUIT (AGE-45) AND REWORK OF  
TERMINAL BLOCKS (AGE-37) COULD NOT BE SUBSTANTIATED,  
BECAUSE IN THE REVIEW OF A RANDOM SAMPLE OF 75  
NONCOMFORMANCE REPORTS (MCR#) ON THESE ISSUES, TRT  
COULD NOT IDENTIFY ANY INCONSISTENCIES OR DEFICIENCIES  
THAT WOULD RAISE A SAFETY QUESTION. TRT CONCLUDED THAT  
ADEQUATE PROCEDURES, CONTROLS, AND PROCESS CHECKS  
EXISTED FOR THE GENERATION AND DISPOSITION OF REPORTED  
ITEMS OF NONCOMFORMANCE AS RELATED TO THE CONCERNS  
RAISED BY THE ABOVE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
ALL MCR#, ADDRESSED UNDER QA/QC CATEGORY 5,  
NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE  
SUBJECTS.

THE RESULTS OF THE TRT REVIEW OF NEW INFORMATION  
CONCERNING ALLEGATIONS AGE-37 WILL ALSO BE REPORTED IN  
A SUPPLEMENT TO THIS SSER. (CLOSED BY MRC IN ITS  
JANUARY 21, 1988 LETTER).

(REFER TO ITEM 11.84E AND 11.84F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

TUE/CPRT RESOLUTION DOCUMENTS



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TRT/C/PRT RESOLUTION DOCUMENTS

\*\* 07 07 080  
SSER: 07  
ALLEG: AQE-47  
ITEM: 07 080

AQE-47  
MANY MCRs WERE DISPOSITIONED  
USE-AS-IS. REF. PG. J-49.

TRT

OF THE 75 NONCOMFORMANCE REPORTS (MCRs) EXAMINED, TRT  
COULD IDENTIFY NO USE-AS-IS DISPOSITIONS THAT DEVIATED  
FROM APPLICABLE DESIGN REQUIREMENTS, EXCEPT FOR THOSE  
IDENTIFIED IN ELECTRICAL AND INSTRUMENTATION CATEGORY  
1, ELECTRICAL CABLE TERMINATIONS, AND ELECTRICAL AND  
INSTRUMENTATION CATEGORY 2, ELECTRICAL CABLE TRAY AND  
CONDUIT INSTALLATION. THE EXCEPTIONS CONCERNED MCRs ON  
BENT TERMINAL LUGS IN MOTOR CONTROL CENTERS (PART OF  
ACE-36) AND TWO LOOSE CONDUIT ELBOW FITTINGS (PART OF  
AE-27). TRT CONCLUDED THAT ADEQUATE PROCEDURES,  
CONTROLS, AND PROCESS CHECKS EXISTED FOR THE  
GENERATION AND DISPOSITION OF REPORTED ITEMS OF  
NONCOMFORMANCE AS RELATED TO THE CONCERNS RAISED BY  
THE ABOVE ALLEGATION.

THE RESULTS OF THIS EVALUATION WILL BE FORWARDED TO  
BE ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF  
ALL MCRs, ADDRESSED UNDER QA/QC CATEGORY 3,  
NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC  
INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS  
EVALUATION WILL BE PREDICATED ON THE SATISFACTORY  
RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE  
SUBJECTS.

(REFER TO ITEM 11.84E AND 11.84F FOR LISTING OF RESOLUTION  
DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COPANACHE PEAK STEAM ELECTRIC STATION (CPSES)

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T:T ISSUES -- SSER# 07, 08, 10 and 11

TUE/CPT RESOLUTION DOCUMENTS

T:T ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.08P  
SSER: 07  
ALLEG: AQE-48  
ITEM: 07.08P

AQE-48  
SOME MCR EVALUATIONS  
INACCURATELY DESCRIBED  
WORKMANSHIP AS "NOT COMPROMISED"  
WHEN IT HAD BEEN POOR. REF. PG.  
J-49

T:T

---  
T:T INTERVIEWED A TU ELECTRIC ELECTRICAL ENGINEER ABOUT DISPOSITIONS OF NONCOMFORMANCE REPORTS (MCR#s) WITH RESPECT TO COMPROMISED WORKMANSHIP. T:T DETERMINED THAT REPLACING A REPORTED ITEM INSTEAD OF REPAIRING IT AS ORIGINALLY DISPOSITIONED WOULD REQUIRE A REVISION TO THE ORIGINAL MCR. THE DISPOSITION OF THE MCR FOR REPLACEMENT WOULD BE BASED ON AN ENGINEERING EVALUATION. T:T DETERMINED THAT ON A CASE-BY-CASE BASIS WHERE WORKMANSHIP MIGHT HAVE BEEN COMPROMISED, THE INSPECTING ENGINEER WOULD APPLY ENGINEERING JUDGMENT TO DETERMINE THAT THE QUALITY OF WORKMANSHIP DID NOT DEGRADE THE INSTALLATION BELOW AN ACCEPTABLE LEVEL. FROM THE 75 MCR#s EXAMINED, T:T COULD NOT FIND ANY EVIDENCE OF UNACCEPTABLE INSTALLATION. T:T CONCLUDED THAT ADEQUATE PROCEDURES, CONTROLS, AND PROCESS CHECKS EXISTED FOR THE GENERATION AND DISPOSITION OF REPORTED ITEMS OF NONCOMFORMANCE AS RELATED TO THE CONCERNS RAISED BY THE ABOVE ALLEGATIONS.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF ALL MCR#s, ADDRESSED UNDER QA/QC CATEGORY 5, NONCOMFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC INSPECTION THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE SUBJECTS.

(REFER TO ITEM 11 84E AND 11 84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE T:T PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 07.08Q SSER: 07 ALLEG: AE-24 ITEM: 07.08Q	AE-24 A CABLE TRAY SUPPORTED BY A TEMPORARY HANGER FELL, DAMAGING INSTRUMENTATION CABLES ENTERING THE CONTROL ROOM. REF. PG. J-49.	TRT --- THE ALLEGATIONS OF DAMAGED CABLE AS A RESULT OF A FALLEN CABLE TRAY (AQ-24); FAILURE TO FOLLOW PROCEDURES AND SPECIFICATIONS (AQE-25 AND AQE-40); INADEQUATE THREAD ENGAGEMENT ON A CONDUIT (AQE-45); AND REMOVAL OF TERMINAL BLOCKS (AQE-37) COULD NOT BE SUBSTANTIATED, BECAUSE IN THE REVIEW OF A RANDOM SAMPLE OF 75 NONCONFORMANCE REPORTS (MCR#) ON THESE ISSUES, TRT COULD NOT IDENTIFY ANY INCONSISTENCIES OR DEFICIENCIES THAT WOULD RAISE A SAFETY QUESTION. TRT CONCLUDED THAT ADEQUATE PROCEDURES, CONTROLS, AND PROCESS CHECKS EXISTED FOR THE GENERATION AND DISPOSITION OF REPORTED ITEMS OF NONCONFORMANCE AS RELATED TO THE CONCERNS RAISED BY THE ABOVE ALLEGATIONS.  THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF ALL MCR#, ADDRESSED UNDER QA/QC CATEGORY 5, NONCONFORMANCE REPORTS, AND UNDER QA/QC CATEGORY 6, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULT OF THE OVERALL PROGRAMMATIC REVIEW ON THESE SUBJECTS.	(REFER TO ITEM 11.84E AND 11.84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

THE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07.08T-2 AE-50

SSER: 07 CABLES IN THE CABLE SPREADING  
ALLEG: AE-50 ROOM WERE SPLICED IN VIOLATION  
ITEM: 07.08T-2 OF REGULATORY REQUIREMENTS.  
REF. PG. J-59.

TRT  
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ALLEGATION AE-50 INVOLVED THE ALLEGED SPLICING OF SAFETY-RELATED CABLES IN RACEMAYS IN VIOLATION OF REGULATORY REQUIREMENTS. RBC TECHNICAL REVIEW TEAM (TRT) REVISITED RBC REGION IV (RIV) INSPECTION REPORT 83-03 (NOVEMBER 9, 1982) AND FOUND THAT THE RIV INVESTIGATION OF THE TWO CABLES SPECIFICALLY IDENTIFIED BY THE ALLEGER ADEQUATELY ADDRESSED THIS ALLEGATION. THE RIV INVESTIGATION DETERMINED THAT ONE CABLE NO LONGER PERFORMS A SAFETY-RELATED FUNCTION, AND THE OTHER CABLE HAD BECOME A SPARE AND WAS REMOVED FROM THE RACEMAY. TRT DETERMINED THAT SIMILAR-APPEARING ITEMS IN THE SAME AREA WERE NOT SPLICES, BUT WERE, IN FACT, ACCEPTABLE METHODS OF REPAIRING MINOR CABLE JACKET DAMAGE. TRT CONCURRED WITH THE RIV DETERMINATION, BUT NOTES THAT REGULATORY REQUIREMENTS DISCOURAGE THE USE OF SPLICES IN RACEMAYS, AS STATED IN POSITION 9 OF REGULATORY GUIDE (RG) 1.75, PHYSICAL INDEPENDENCE OF ELECTRICAL SYSTEMS. IF SPLICES ARE MADE, THE RESULTING DESIGN SHOULD BE JUSTIFIED BY ANALYSIS. THIS AREA IS FURTHER ADDRESSED UNDER QA/QC CATEGORY 9, AS BUILT.

(REFER TO ITEM 11.63L FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

CORANICHE PEAK STEAM ELECTRIC STATION (CPSES)  
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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07 008 AE-28  
SSER: 07 CABLES WERE NOT TRAINED BY USE  
ALLEG: AE-28 OF GOOD WORKMANSHIP IN UNIT 1  
ITEM: 07 008 CABLE SPREADING ROOM AND  
JUNCTION BOXES 1058A1059. AN MCR  
DISPOSITIONED THIS CONDITION AS  
ACCEPTABLE BECAUSE OF PROPER  
CABLE BEND RADIO, BUT WORKMANSHIP  
PROBLEM WASN'T ADDRESSED. REF.  
PG J-59

TRT  
---  
ALLEGATION AE-28 INVOLVED INSTANCES OF IMPROPER CABLE  
TRAINING (OR DRESSING) AND POOR WORKMANSHIP IN CABLE  
INSTALLATION. JUNCTION BOXES 1058 AND 1059 WERE  
INSPECTED BY TRT TO CHECK FOR IMPROPER TRAINING OF  
CABLES AND POOR WORKMANSHIP. JUNCTION BOXES 1058 AND  
1059 WERE INSPECTED BY TRT TO CHECK FOR IMPROPER  
TRAINING OF CABLES AND POOR WORKMANSHIP. TRT FINDINGS  
AGREED WITH THE PREVIOUS MRC REGION IV DETERMINATION  
THAT THESE CABLES, WHICH ARE NONSAFETY-RELATED, WERE  
PROPERLY TRAINED AND THAT THEY EXHIBITED AN ACCEPTABLE  
DEGREE OF WORKMANSHIP. THESE FINDINGS WERE DISCUSSED  
WITH THE ALLEGER WHO INDICATED THAT THE JUNCTION BOX  
NUMBERS MAY NOT HAVE BEEN CORRECT AND PROVIDED  
ADDITIONAL INFORMATION CONCERNING THE LOCATION OF THE  
BOXES IN THE PLANT. TRT IS CURRENTLY EVALUATING THIS  
INFORMATION AND WILL REPORT THE RESULTS IN A  
SUPPLEMENT TO THIS SSER.

(FUTURE)

COCHANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.108 AT-02  
SSER: 07 SIGNIFICANT MODIFICATIONS HAVE  
ALLEG: AT-02 BEEN MADE OR PLANNED WHICH  
ITEM: 07.108 INVALIDATE THE BOT FUNCTIONAL  
TEST. REF. PG. J-69.

TRT

TRT FOUND THAT WHILE SOME COMPONENTS AND EQUIPMENT WERE NOT INSTALLED DURING THE INITIAL HOT FUNCTIONAL TEST, THEY WERE DOCUMENTED AND TRACKED TO BE INCLUDED IN THE DEFERRED PREOPERATIONAL TESTING. ALSO SOME 74 MODIFICATIONS, MOSTLY TO HANGERS, SHROUDS, AND OTHER PIPE SUPPORTS, REQUIRED HOT PLANT CONDITIONS FOR VALID RETESTING.

TRT FOUND THAT TU ELECTRIC'S PLAN TO COMPLETE HOT FUNCTIONAL TESTING APPEARED TECHNICALLY SOUND AND WITHOUT SAFETY IMPLICATIONS.

ACTION REQUIRED

TU ELECTRIC HAD INFORMED TRT THAT THE STATION OPERATION REVIEW COMMITTEE (SORC) WILL REVIEW DEFERRED PREOPERATIONAL TEST DATA. BECAUSE THE REVIEW OF DATA OBTAINED FROM THE DEFERRED PREOPERATIONAL TESTS IS A FUNCTION OF THE SORC, TU ELECTRIC SHALL SEND THE FSAR TO REFLECT THEIR COMMITMENT TO TRT THAT THE SORC AND NOT THE JOINT TEST GROUP (JTG) WILL PERFORM THESE REVIEWS. THIS REQUIREMENT, NOT INCLUDED IN THE SEPTEMBER 18, 1984, LETTER TO TU ELECTRIC, IS NECESSARY BECAUSE THE CURRENT VERSION OF THE FSAR STATES THAT THE JTG IS RESPONSIBLE FOR REVIEWING PREOPERATIONAL TEST DATA. (PGJ-77 SSER-7).

ISAF(s) III.A.2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

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TUE/CPRT RESOLUTION DOCUMENTS  
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TRT ISSUE SUMMARY  
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ISSUE  
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ISSUE SOURCE  
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AT-04  
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NEITHER TUEC NOR MRC REGION IV  
STAFF NOTICED THAT MAJOR  
COMPONENTS AND EQUIPMENT WERE  
NOT INSTALLED PRIOR TO THE HOT  
FUNCTIONAL TEST. REF. PG. J-69.

AT-04

\*\* 07 07.10D  
SSER: 07  
ALLEG: AT-0  
ITEM: 07.10D

TRT FOUND THAT THERE WAS NO EVIDENCE THAT EITHER TU  
ELECTRIC OR THE MRC REGION IV STAFF WAS WILLING TO  
ACCEPT DEFICIENT TEST RESULTS OR THAT EITHER HAD  
EXHIBITED A LACK OF CANDOR IN IDENTIFYING PROBLEMS  
DURING THE HOT FUNCTIONAL TEST.

TRT DETERMINED THAT ABOUT 50 PERCENT OF THE MONITORING  
LOCATIONS STILL REQUIRED MEASUREMENTS AFTER THE  
THERMAL EXPANSION TEST WAS COMPLETED. THIS WAS DUE TO  
TEST POINTS FAILING ACCEPTANCE CRITERIA, EQUIPMENT  
REMOVED OR MISSING DURING THE TEST, AND EQUIPMENT  
MODIFIED AFTER THE TEST. ALSO, THE SPECIFIC MEASURING  
DEVICE USED AT EACH MONITORING LOCATION WAS NOT  
IDENTIFIED IN THE TEST DATA PACKAGE BUT WAS CONTAINED  
IN A LOG HELD BY TU ELECTRIC. TRT ADVISED TU ELECTRIC  
THAT THE INFORMATION RELATING MEASURING DEVICES TO  
MONITORING LOCATIONS MUST BE IN THE DATA PACKAGE.

ISAP(s) III A.4

CORANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE

TRT ISSUE SUMMARY

ISSUE

\*\* 07 07 10F  
SSER: 07  
ALLEG: AT-06  
ITEM: 07 10F

AT-06  
THE WILLINGNESS OF BOTH THE  
APPLICANT AND THE NRC REGION IV  
STAFF TO ACCEPT NOT FUNCTIONAL  
TEST RESULTS WHICH ARE DEFICIENT  
MAKES IT IMPOSSIBLE TO RELY ON  
THE TEST RESULTS TO PROVE CPSES  
IS SAFE. REF. PG. J-69.

TRT  
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TRT FOUND NO EVIDENCE THAT EITHER TU ELECTRIC OR THE  
NRC REGION IV STAFF WAS WILLING TO ACCEPT DEFICIENT  
TEST RESULTS OR THAT EITHER HAD EXHIBITED A LACK OF  
CANDOR IN IDENTIFYING PROBLEMS DURING THE NOT  
FUNCTIONAL TEST (NFT).

TRT IDENTIFIED THREE PREOPERATIONAL TESTS CONDUCTED  
DURING HFT THAT WERE NOT COMPLETED TO THE OBJECTIVES  
STATED IN TEST PROCEDURES.

ACTIONS REQUIRED

-----  
SECTION 4(6), PGJ-73 THROUGH J-76 SSER-7, REFERS TO  
THREE PREOPERATIONAL TESTS CONDUCTED DURING HFT THAT  
TRT DETERMINED WERE NOT COMPLETED TO THE EXTENT  
REQUIRED BY THE OBJECTIVES STATED IN THE TEST  
PROCEDURES. ACCORDINGLY, TU ELECTRIC SHALL REVIEW ALL  
COMPLETED PREOPERATIONAL TEST DATA PACKAGES TO ENSURE  
THERE ARE NO OTHER INSTANCES WHERE TEST OBJECTIVES  
WERE NOT MET, OR PREREQUISITE CONDITIONS WERE NOT  
SATISFIED. THE FOUR ITEMS IDENTIFIED BY THE TRT STAFF  
SHALL BE ADDRESSED, WITH APPROPRIATE RESOLUTION, IN  
THE DEFERRED PREOPERATIONAL TESTS.

ISAP(a) III.A.1

ISSUE SOURCE

TRT ISSUE SUMMARY

ISSUE

TUE/CPRT RESOLUTION DOCUMENTS



CORANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.10L-1 AT-17  
SSER: 07 TRACEABILITY OF MEASURING  
ALLEG: AT-17 DEVICES FOR THERMAL EXPANSION  
ITEM: 07.10L-1 TEST WAS LOST. REF. PG J-72.

TRT

ISAP(s) III.A.4

ALTHOUGH TEMPERATURES WERE TAKEN AND LOGGED DURING ICP-PT-55-11, THERMAL EXPANSION, THE SPECIFIC MEASURING DEVICE USED AT EACH MONITORING LOCATION WAS NOT AVAILABLE IN THE TEST DATA PACKAGE. HOWEVER, INFORMATION THAT TIED THE DEVICES TO SPECIFIC MONITORING LOCATIONS WAS AVAILABLE IN A LOG THAT WAS NOT PART OF THE TEST DATA PACKAGE.

TRT SPECIFIED THAT TO ELECTRIC INCORPORATE THE INFORMATION FROM THE LOG IN THE OFFICIAL ICP-PT-55-11 DATA PACKAGE AND ESTABLISH ADMINISTRATIVE CONTROLS TO ASSURE APPROPRIATE TEST AND MEASURING EQUIPMENT TRACEABILITY DURING FUTURE TESTING AND PLANT OPERATIONS.

ACTIONS REQUIRED

TRT DETERMINED THAT ICP-PT-55-11, THERMAL EXPANSION, DID NOT INCLUDE INFORMATION NEEDED TO TRACE THE MEASURING DEVICES TO THE MONITORED LOCATIONS, ALTHOUGH THE INFORMATION WAS AVAILABLE IN A LOG MAINTAINED BY TU ELECTRIC SHALL INCORPORATE THE INFORMATION CONTAINED IN THE LOG INTO THE OFFICIAL ICP-PT-55-11 DATA PACKAGE SO THAT THE TRACEABILITY IS MAINTAINED, AND SHALL ALSO ESTABLISH ADMINISTRATIVE CONTROLS TO ASSURE APPROPRIATE TEST AND MEASURING EQUIPMENT TRACEABILITY DURING FUTURE TESTING AND PLANT OPERATION.

CONARCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

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TUE/CPRT RESOLUTION DOCUMENTS  
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TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.11 AT-07  
SSER: 07 PROBLEMS REVEALED BY THE HOT  
ALLEG: AT-07 FUNCTIONAL TEST, AND RELATED  
ITDM: 07.11 CONTAINMENT AND LEAK-RATE TESTS,  
ARE SO EXTENSIVE AND OF SUCH  
MAGNITUDE THAT THEY MUST BE  
CORRECTED BEFORE FUEL LOAD.  
REF. PG. J-01.

ISAP(s) III.B

TRT

TRT REVIEWED THE PROCEDURE FOR THE CONTAINMENT INTEGRATED LEAK RATE TEST (CILRT) AND THE RESULTANT TEST DATA TO DETERMINE IF THE TEST WAS IN COMPLIANCE WITH 10CFR50, APPENDIX J, AND PROPOSED TECHNICAL SPECIFICATIONS. TRT DETERMINED THAT, AS ALLEGED, NUMEROUS LEAKS WERE DETECTED DURING THE FIRST TWO ATTEMPTS TO MEASURE THE CONTAINMENT BUILDING LEAKAGE RATE. THESE LEAKS WERE CORRECTED, EXCEPT FOR THREE ELECTRICAL PENETRATIONS WHICH WERE ISOLATED. THE THIRD ATTEMPT WAS CONSIDERED SATISFACTORY. THE MEASURED LEAKAGE RATES FROM THE THREE REPAIRED ELECTRICAL PENETRATIONS AND THE FOUR PENETRATIONS USED TO CONDUCT THE TEST WERE ADDED TO THE MEASURED LEAKAGE RATE FROM THE CILRT. THE TOTAL RESULTANT LEAKAGE RATE WAS LESS THAN THAT ALLOWED BY 10CFR50, APPENDIX J, AND PROPOSED TECHNICAL SPECIFICATIONS.

TMT, HOWEVER, WAS CONCERNED THAT THE METHOD OF CALCULATING THE LEAKAGE RATE WAS IN ACCORDANCE WITH ANSI/ANS 56.8-1981 INSTEAD OF ANSI M45.4-1972 AS PRESCRIBED BY THE FSAR, AND THAT THE THREE ELECTRICAL PENETRATIONS WERE ISOLATED WITHOUT NRC APPROVAL. THESE ITEMS, WHICH WERE TECHNICALLY INSIGNIFICANT WITH RESPECT TO THE TEST RESULTS, WERE REFERRED TO THE OFFICE OF NUCLEAR REACTOR REGULATION (NRR). NRR REQUESTED ADDITIONAL INFORMATION FROM TU ELECTRIC BY FSAR QUESTION Q022.22. TU ELECTRIC PROVIDED THAT INFORMATION AND APPROPRIATE CHANGES TO THE FSAR IN APPENDIX 5A BY LETTER OF DECEMBER 21, 1984. NRR CONCLUDED THAT THESE MATTERS WERE RESOLVED AS REFLECTED IN ITEM (36), SECTION 1.7, OF CONARCHE PEAK SSER-6.

TRT STATED THAT THE FAILURE TO REPORT THE DEVIATION FROM AN FSAR COMMITMENT TO NRC COULD BE INDICATIVE OF A GENERIC WEAKNESS.

ACTION REQUIRED

-----  
PRIOR TO FUEL LOADING, TU ELECTRIC SHALL IDENTIFY ALL

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSES# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/C/PRT RESOLUTION DOCUMENTS
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OTHER DEVIATIONS FROM FSAR COMMITMENTS WHICH HAVE NOT BEEN IDENTIFIED PREVIOUSLY TO THE NRC.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 07 07.12  
SSER: 07  
ALLEG: AT-14  
ITEM: 07.12

AT-14  
UNQUALIFIED CRAFT PERSONNEL  
PERFORMED PREREQUISITE TESTING,  
STE# SIGNED FOR TESTS NOT  
OBSERVED, AND DOCUMENTATION MADE  
TO APPEAR THAT STE# INSTEAD OF  
CRAFT PERSONNEL PERFORMED TESTS.  
REF. PG J-85

TRT  
---

PREREQUISITE TESTING IS PERFORMED TO VERIFY THE  
COMPLETE INSTALLATION, CLEANLINESS, AND INITIAL  
OPERABILITY OF INDIVIDUAL PLANT COMPONENTS. THIS  
TESTING INVOLVES CHECKS OF ELECTRICAL RESISTANCE,  
TRANSFORMER POLARITY, RELAY AND CIRCUIT BREAKER  
OPERATION, MOTOR ROTATION, INITIAL PUMP OPERATION,  
SYSTEM CLEANLINESS, AND PIPE SUPPORT ADJUSTMENTS.

CRAFT PERSONNEL WHO WERE NOT QUALIFIED TO ANSI #A5.2.6  
STANDARDS WERE USED TO ASSIST WITH PREREQUISITE  
TESTING ACTIVITIES. THIS IS PERMITTED BY ANSI #A5.2.6  
AS ADHERED BY REGULATORY GUIDE (RG) 1.58. THESE  
PEOPLE CAN TAKE DATA AND OPERATE EQUIPMENT PROVIDED  
THEY ARE SUPERVISED BY QUALIFIED INDIVIDUALS AND HAVE  
SUFFICIENT KNOWLEDGE TO ENSURE AN ACCEPTABLE LEVEL OF  
PERFORMANCE. TRT FOUND THAT THE CRAFT PERSONNEL USED  
TO ASSIST WITH PREREQUISITE TEST ACTIVITIES WERE  
APPROPRIATELY INDOCTRINATED IN THE ADMINISTRATIVE AND  
PREREQUISITE TEST PROCEDURES APPLICABLE TO THEIR WORK.  
PERFORMED WORK UNDER SYSTEM TEST ENGINEER (STE)  
SUPERVISION, AND PERFORMED WORK THAT WAS WITHIN  
JOURNEYMAN LEVEL OF EXPERTISE.

CRAFT PERSONNEL MAY NOT HAVE BEEN UNDER THE CONSTANT  
SUPERVISION OF AN STE DURING PREREQUISITIVE TESTING, BUT  
THIS IS NOT REQUIRED BY ANSI #A5.2.6 OR RG 1.58. TRT  
CONSIDERED THAT ADEQUATE TECHNICAL SUPERVISION AND  
OVERSIGHT WERE BEING EXERCISED.

TRT DID NOT FIND THAT TEST DOCUMENTATION WAS MADE TO  
LOOK AS IF AN STE PERFORMED THE TEST WHEN THE TEST WAS  
ACTUALLY PERFORMED BY CRAFT PERSONNEL. TRT FOUND THAT  
WHEN CRAFT PERSONNEL TOOK AND RECORDED TEST DATA, THEY  
SIGNED THE ENTRIES. THE SIGNATURES OF STE# ON DATA  
SHEETS INDICATED THAT THE DATA HAD BEEN EVALUATED  
AGAINST ACCEPTANCE CRITERIA BY THE STE AND WAS FOUND  
TO BE SATISFACTORY.

TRT CONSIDERED THE PRACTICE OF USING CRAFT PERSONNEL  
TO ASSIST WITH PREREQUISITE TESTING TO BE CONSISTENT

ISAP(s) III.C

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE ----- TRT ISSUE SUMMARY ----- TUE/CPRT RESOLUTION DOCUMENTS -----

WITH APPLICABLE INDUSTRY GUIDES AND STANDARDS AND IN CONFORMANCE WITH FSAR COMMITMENTS.

TRT WILL FURTHER ASSESS THE CONCERN ABOUT THE INADEQUATE QUALIFICATIONS OF PREOPERATIONAL TEST PERSONNEL AS PART OF THE OVERALL PROGRAMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 4, CONSTRUCTION AND TESTING.

TRT FOUND SOME DATA SHEETS THAT CRAFT PERSONNEL HAD SIGNED VERIFYING INITIAL CONDITIONS FOR SOME PREREQUISITE TESTS INSTEAD OF STE'S AS WAS REQUIRED BY PROCEDURE. FURTHER INVESTIGATION REVEALED A MEMORANDUM ISSUED BY THE LEAD STARTUP ENGINEER THAT ALLOWED CRAFT PERSONNEL TO VERIFY INITIAL CONDITIONS ACTIONS REQUIRED

-----  
TU ELECTRIC SHALL RESCIND MEMORANDUM STM-8308A OF MARCH 31, 1983, WHICH WAS ISSUED IN CONFLICT WITH CP-SAP-21, AND TAKE ACTION TO ENSURE THAT THERE ARE NO OTHER MEMORANDA ISSUED THAT CONFLICT WITH APPROVED PROCEDURES. TU ELECTRIC SHALL ALSO CONDUCT A REVIEW OF ALL OTHER PREREQUISITE TEST RECORDS TO DETERMINE THOSE THAT HAD PREREQUISITES SIGNED BY CRAFT PERSONNEL, AND ASSESS THE IMPACT OF THOSE IMPROPER VERIFICATIONS ON SUBSEQUENT TESTING.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSES# 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

\*\* 07 07.13G

SSER: 07  
ALLEG: AT-15  
ITEM: 07.13G

AT-15  
PREOPERATIONAL TEST PROGRAM IS  
FLAWED BECAUSE: (7) STE'S WERE  
NOT PROVIDED WITH CURRENT DESIGN  
INFORMATION AND, THEREFORE, MUST  
SPEND TOO MUCH TIME RESEARCHING  
AND VALIDATING DRAWINGS. REF.  
PG. J-01.

TRT

---

THE ALLEGATION INVOLVED THE USE OF OUTDATED DRAWINGS  
BY SYSTEM TEST ENGINEERS (STE'S). SUPPOSEDLY, OUTDATED  
DRAWINGS WERE BEING PROVIDED BY THE DOCUMENT CONTROL  
CENTER (DCC). ALSO, PROCEDURAL GUIDANCE DID NOT EXIST  
TO ENSURE THAT STE'S HAD CURRENT DRAWINGS AND OTHER  
DESIGN INFORMATION TO CONDUCT TESTS.

TRT INTERVIEWED SEVERAL STE'S. THE INTERVIEWS INDICATED  
THAT THE PROBLEM OF RECEIVING OUTDATED DRAWINGS  
EXISTED IN THE PAST BUT IMPROVEMENTS HAVE BEEN MADE.  
PREVIOUSLY, STE'S WERE REQUIRED TO GO TO THE DCC TO  
UPDATE DOCUMENTS. THIS WAS VERY TIME-CONSUMING TO  
IMPROVE THIS SITUATION. A SATELLITE DOCUMENT CONTROL  
CENTER HAS BEEN ESTABLISHED CLOSE TO THE STE WORK  
AREA, AND CONTROLS HAVE BEEN IMPROVED TO ENSURE THAT  
DRAWINGS ARE UP-TO-DATE. ALSO, STE'S STATED THAT THEY  
HAVE ALWAYS BEEN RESPONSIBLE BY PROCEDURE FOR ENSURING  
THAT THE LATEST DESIGN INFORMATION WAS USED IN  
TESTING. TRT CONFIRMED THAT A PROCEDURE DOES ASSIGN  
THAT RESPONSIBILITY TO STE'S.

DURING THE REVIEW OF THE TEST PROGRAM, TRT COULD FIND  
NO INDICATION OF DEFICIENT TESTING ACTIVITIES THAT  
COULD BE ATTRIBUTED TO THE USE OF OUTDATED DRAWINGS,  
EITHER PAST OR PRESENT.

ACTIONS REQUIRED

-----  
TU ELECTRIC SHALL ESTABLISH MEASURES TO PROVIDE  
GREATER ASSURANCE THAT STE AND OTHER RESPONSIBLE TEST  
PERSONNEL ARE PROVIDED WITH CURRENT DESIGN DOCUMENTS  
AND CHANGE NOTICES. ADDITIONALLY, TU ELECTRIC SHALL  
PROVIDE NRC WITH REASONABLE ASSURANCE THAT PAST  
DOCUMENT CONTROL SYSTEM PROBLEMS DID NOT ADVERSELY  
AFFECT THE TESTING PROGRAM.

ISAP(\*) III.D

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 06, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07 14A  
SSER: 07  
ALLEG: AQE-07  
ITEM: 07 14A  
A QC SUPERVISOR INSTRUCTED ELECTRICAL INSPECTORS NOT TO PERFORM REQUIRED IN-PROCESS INSPECTIONS, BUT ONLY TO INSPECT COMPLETED WORK. REF. PG. J-07.

TRT  
---  
TRT EXAMINED CURRENT AND PAST INSPECTION PROCEDURES IN THE ELECTRICAL AREA TO DETERMINE THE NUMBER OF IN-PROCESS INSPECTIONS REQUIRED. TRT FOUND ONLY ONE ELECTRICAL INSPECTION PROCEDURE THAT DEFINED A SPECIFIC NUMBER OF REQUIRED IN-PROCESS INSPECTIONS. THAT PROCEDURE COVERED CABLE TERMINATIONS AND REQUIRED A MINIMUM OF TEN IN-PROCESS INSPECTIONS PER SHIFT. THE FREQUENCY OF INSPECTION WAS CHANGED IN AUGUST 1980 WEEKLY IN-PROCESS INSPECTION.

TRT COULD NOT DETERMINE THE REASON FOR THE DECREASE IN INSPECTIONS. THE NUMBER OF NONCONFORMANCE REPORTS (NCRs) ISSUED BEFORE AND AFTER THE CHANGE REMAINED THE SAME. THE SAME NUMBER OF NCRs FROM FEMER INSPECTIONS MIGHT INDICATE MORE THOROUGH INSPECTIONS. QC PERSONNEL COULD ONLY SPECULATE THAT THE CAUSE OF THE DECREASE IN INSPECTIONS WAS AN INCREASE IN THE LEVEL OF CONFIDENCE THAT THE QUALITY OF WORK WAS ADEQUATE. TRT, HOWEVER, COULD NOT SUBSTANTIATE AN IMPROVEMENT IN THE QUALITY OF WORK BASED ON CONCERNS THEY HAD WITH ELECTRICAL TERMINATIONS. THESE CONCERNS INVOLVED IMPROPERLY DISPOSITIONED NCRs FOR VENDOR-INSTALLED TERMINAL LUGS, TERMINATIONS NOT IN CONFORMANCE WITH CURRENT DRAWINGS, AND THE ADEQUACY OF QC INSPECTIONS AND SUPPORTING DOCUMENTATION PARTICULARLY WITH RESPECT TO TERMINATION ACTIVITIES REQUIRING WITNESSING BY QC PERSONNEL.

TRT CONCLUDED THAT THE ALLEGATION ABOUT COMPROMISING THE QUALITY OF INSTALLATION BY CHANGING THE FREQUENCY OF IN-PROCESS INSPECTIONS FOR CABLE TERMINATIONS WAS UNSUBSTANTIATED. HOWEVER, THIS EVALUATION WILL BE ASSESSED FURTHER AS PART OF THE OVERALL PROGRAMMATIC REVIEW OF TU ELECTRIC'S DEFICIENCY IDENTIFICATION PROGRAM FOR IN-PROCESS INSPECTIONS ADDRESSED UNDER QA/QC CATEGORY 5, NONCONFORMANCE REPORTS.

ACTION REQUIRED

FOR ACTIONS REQUIRED IN ELECTRICAL AND INSTRUMENTATION CATEGORY 1, ELECTRICAL CABLE TERMINATIONS, TU ELECTRIC

ISAP(s) I.A.2; I.A.4; VII.C. APPENDIX 3  
FSR: ELECTRICAL  
CARS 87-039, 87-049, 87-073  
(REFER TO ITEM 11.84E FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TIT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

SHALL ADDRESS CONCERNS WITH REGARD TO REDUCTION IN  
CABLE TERMINATION INSPECTIONS.



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
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** 07 07.17A SSER: 07 ALLEG: AQE-23 ITEM: 07.17A	AQE-23 PART REQUIREMENTS WERE DELETED BY REVISIONS TO POST-CONSTRUCTION ELECTRICAL INSPECTION PROCEDURES. REF. PO. J-63.	TRT --- TRT FOUND NO OMISSIONS IN REQUIREMENTS FOR THE INSPECTION OF ELECTRICAL EQUIPMENT AND RACEWAYS.  BASED ON THE REVIEW OF PROCEDURES FOR IN-PROCESS, POST-CONSTRUCTION, AND TURNOVER INSPECTIONS, TRT CONCLUDED THAT NO SIGNIFICANT CONCERNS EXISTED WITH ELECTRICAL PROCEDURES. HOWEVER, EQUIPMENT INSTALLATION PROBLEMS, AS RELATED TO NONCONFORMANCE WITH PROCEDURES, ARE BEING ADDRESSED IN THE HARDWARE-RELATED ELECTRICAL AND INSTRUMENTATION CATEGORIES. TRT, THEREFORE, CONCLUDED THAT THESE ELECTRICAL PROCEDURE-RELATED ALLEGATIONS COULD NOT BE SUBSTANTIATED.  THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING THE POST-CONSTRUCTION VERIFICATION PROGRAM ADDRESSED UNDER QA/QC, CATEGORY 9, AS BUILT.  THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE OVERALL PROGRAMMATIC REVIEW ON THIS SUBJECT.	(REFER TO ITEM 11.83L FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)
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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TUL/CPRI RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 07 07.17B AQE-32

SSER: 07 BECAUSE OF COMPLAINTS FROM CRAFT  
ALLEG: AQE-32 PERSONNEL, FOUR REVISIONS WERE  
ITEM: 07.17B MADE TO Q1-QP 11.14-12 THAT  
DELETED INSPECTION REQUIREMENTS.  
REF. PG. J-63.

TRT

TRT FOUND NO OMISSIONS IN REQUIREMENTS OF ELECTRICAL  
EQUIPMENT.

BASED ON THE REVIEW OF PROCEDURES FOR IN-PROCESS,  
POST-CONSTRUCTION, AND TURNOVER INSPECTIONS, TRT  
CONCLUDED THAT NO SIGNIFICANT CONCERNS EXISTED WITH  
ELECTRICAL PROCEDURES. HOWEVER, EQUIPMENT INSTALLATION  
PROBLEMS, AS RELATED TO NONCONFORMANCES WITH  
PROCEDURES, ARE BEING ADDRESSED IN THE  
BARDMARE-RELATED ELECTRICAL AND INSTRUMENTATION  
CATEGORIES. TRT, THEREFORE, CONCLUDED THAT THIS  
ELECTRICAL PROCEDURE-RELATED ALLEGATION COULD NOT BE  
SUBSTANTIATED.

THE RESULTS OF THIS EVALUATION WILL BE FURTHER  
ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW  
CONCERNING THE POST-CONSTRUCTION VERIFICATION PROGRAM  
ADDRESSED UNDER QA/QC, CATEGORY 6, AS BUILT.

(REFER TO ITEM 11.03L FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 07 17C SSER: 07 ALLEG: AQE-52 ITDM: 07 17C	AQE-52 REVISION 15 TO A POST-CONSTRUCTION INSPECTION PROCEDURE ELIMINATED THE REQUIREMENT TO INSPECT LARGE PIECES OF EQUIPMENT SUCH AS 6.9 KV MOTORS. REF PG. J-63.	TRT --- TRT FOUND NO OMISSIONS IN REQUIREMENTS FOR INSPECTION OF ELECTRICAL EQUIPMENT AND RACEWAYS.  BASED ON THE REVIEW OF PROCEDURES FOR IN-PROCESS, POST-CONSTRUCTION, AND TURNOVER INSPECTIONS, TRT CONCLUDED THAT NO SIGNIFICANT CONCERNS EXISTED WITH ELECTRICAL PROCEDURES. HOWEVER, EQUIPMENT INSTALLATION PROBLEMS, AS RELATED TO NONCONFORMANCES WITH PROCEDURES, ARE BEING ADDRESSED IN THE HANDMADE-RELATED ELECTRICAL AND INSTRUMENTATION CATEGORIES. TRT, THEREFORE, CONCLUDED THAT THESE ELECTRICAL PROCEDURE-RELATED ALLEGATIONS COULD NOT BE SUBSTANTIATED.	(REFER TO ITEM 11.03L FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)
		THE RESULTS OF THIS EVALUATION WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING THE POST-CONSTRUCTION VERIFICATION PROGRAM ADDRESSED UNDER QA/QC, CATEGORY 6, AS BUILT.	

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 A-02 SSER: 07 ALLEG: J-118 ITDH: A-02	J-118 TRT DID NOT FIND ANY DOCUMENT PROVIDING ASSURANCE THAT TU ELECTRIC WOULD HAVE JTG, OR SIMILARLY QUALIFIED GROUP, APPROVE DATA FOR PROPOSED POST-REFUELING, DEFERRED PREOPERATIONAL HFT PRIOR TO PROCEEDING TO CRITICALITY. REF. PG. J-118	TRT --- TRT STATED THAT TU ELECTRIC SHALL COMMIT TO HAVING A JTG, OR SIMILARLY QUALIFIED GROUP, REVIEW AND APPROVE ALL POST-FUELING PREOPERATIONAL TEST RESULTS PRIOR TO DECLARING THE SYSTEM OPERABLE IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS.	ISAP(s) III.A.2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 07 A-03 SSER: 07 ALLEG: J-110 ITEM: A-03	J-110 TO CONDUCT PREOPERATIONAL TESTS AT NECESSARY TEMPERATURES AND PRESSURES AFTER FUEL LOAD CERTAIN LIMITING CONDITIONS OF THE PROPOSED TECH. SPECIF. CANNOT BE MET, I.E. ALL SHROUDERS WILL NOT BE OPERATIONAL SINCE SOME WILL NOT HAVE BEEN TESTED REF. PG. J-110	TRT TRT STATED THAT TU ELECTRIC SHALL EVALUATE REQUIRED PLANT CONDITIONS FOR DEFERRED PREOPERATIONAL TESTS AGAINST LIMITING CONDITIONS IN THE PROPOSED TECHNICAL SPECIFICATIONS AND OBTAIN NRC APPROVAL WHERE DEVIATIONS FROM THE TECHNICAL SPECIFICATIONS ARE NECESSARY. THIS REQUIREMENT BECAME INAPPLICABLE WHEN TU ELECTRIC INFORMED TRT THAT THE DEFERRED TESTS WOULD BE CONDUCTED PRIOR TO FUEL LOAD. (PG J-18)	ISAP(s) III.A.3

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

ISAP(8) VII C, APPENDIX 10  
SDAR CP-79-13  
STIR CPRT-S-002

AC-25  
VOIDS EXISTED IN THE CONCRETE  
WALL BEHIND THE UNIT-1 REACTOR  
CAVITY STAINLESS STEEL LINER.  
REF. PG. K-36.

08 08 05A  
SSER: 08  
ALLEG: AC-25  
ITDM: 08 05A

TRT

THE ALLEGER STIPULATED THAT HOLLOW PLACES WERE LOCATED BEHIND THE STAINLESS STEEL LINER OF UNIT 1 REACTOR CAVITY, BUT WHEN INTERVIEWED BY TRT, HE STATED THAT HE MEANT UNIT 2. THE ALLEGATION WAS INVESTIGATED BY MRC REGION IV AND DOCUMENTED IN RIV-IR 50-445/80-11 AND 50-446/80-11, WHICH WERE REVIEWED BY TRT AS A STEP IN ITS OWN ASSESSMENT OF THE SITUATION.

ACTION REQUIRED

THE REPAIRS AND THE REPAIR DOCUMENTATION TO THE BOWYCOMBING EXISTING IN CONCRETE BEHIND THE STAINLESS STEEL LINER OF THE UNIT 2 REACTOR CAVITY MUST BE INSPECTED/REVIEWED AND APPROVED BY THE MRC RESIDENT INSPECTOR BEFORE TRT CAN DETERMINE WHETHER THIS ISSUE HAD BEEN ADEQUATELY RESOLVED. THE SUCCESSFUL COMPLETION OF THE REPAIRS SHALL BE REPORTED TO TRT AND WILL BE VERIFIED BY THE MRC RESIDENT INSPECTOR PRIOR TO LOW-POWER OPERATIONS.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08 09B  
SSER: 08  
ALLEG: AC-38  
ITEM: 08 09B

AC-38  
HORIZONTAL TIE REBAR WAS MISSING  
FROM THE UNIT-1 CONTAINMENT  
BLDG. WALL. REF. PG. K-49.

TRT

---

TRT CONCLUDED THAT HORIZONTAL SHEAR BAR REINFORCEMENT WAS PLACED IN THE UNIT-1 CONTAINMENT BUILDING WALL AS REQUIRED. TRT AGREED WITH THE CONCLUSION DRAWN BY THE NRC REGION IV INSPECTION REPORT NO. 79-25 THAT THE ALLEGATION REFERS TO THE UNIT-2 CONTAINMENT STRUCTURE. FOR THE UNIT-2 CONTAINMENT, A GIBBS & HILL ANALYSIS SHOWED THAT THE STRUCTURE WAS CAPABLE OF CARRYING THE DESIGN LOADING IN THE AS-BUILT CONDITION. THIS ISSUE HAS NO STRUCTURAL SAFETY SIGNIFICANCE.

HOWEVER, THE RESULTS OF THESE EVALUATIONS THAT PERTAIN TO QC REBAR PLACEMENT WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 8, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.

(REFER TO ITEM 11 84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
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TRT ISSUES -- SSES# 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 08 08 09D  
SSE# 08  
ALLEG: AC-49  
ITEM: 08 09D  
K-49.

AC-49  
REBAR WAS INSTALLED UPSIDE DOWN  
IN A BUILDING NEAR THE UNIT-2  
CONTAINMENT STRUCTURE. REF. PG.  
K-49.

TRT  
---

TRT CONCLUDED THAT THIS INSTANCE OF REBAR BEING  
IMPROPERLY INSTALLED WAS CORRECTED PRIOR TO CONCRETE  
PLACEMENT. THEREFORE, THIS ALLEGATION HAS NO  
STRUCTURAL SAFETY SIGNIFICANCE.

HOWEVER, THE RESULTS OF THESE EVALUATIONS THAT PERTAIN  
TO QC REBAR PLACEMENT WILL BE FURTHER ASSESSED AS A  
PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING  
PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 8, QC  
INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF  
THESE EVALUATIONS WILL BE PREDICATED ON THE  
SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF  
THIS SUBJECT.

(REFER TO ITEM 11 94F FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE SOURCE

\*\* 08 08.10 PARA E (1)  
SSER: 08 REBAR WAS OMITTED IN A REACTOR  
ALLEG: PARA E (1) CAVITY CONCRETE PLACEMENT  
ITEM: 08 10 BETWEEN THE 812-FT. AND 819-FT.  
1/2-IN ELEVATIONS IN UNIT-1  
REACTOR BLDG. REF PG. E-32.

TRT

TRT COULD NOT DETERMINE THE SAFETY SIGNIFICANCE OF THIS ISSUE UNTIL AN ANALYSIS WAS PERFORMED VERIFYING THAT THE REINFORCING STEEL IN THE AS-BUILT CONDITION WAS ADEQUATE.

ACTION REQUIRED

-----  
TU ELECTRIC SHALL PROVIDE AN ANALYSIS OF THE AS-BUILT CONDITION OF THE UNIT 1 REACTOR CAVITY THAT VERIFIES THE ADEQUACY OF THE REINFORCING STEEL BETWEEN THE 812-FOOT AND 819-FOOT, 1/2-INCH ELEVATIONS. THE ANALYSIS SHALL CONSIDER ALL REQUIRED LOAD COMBINATIONS.

HOWEVER, THE RESULTS OF THESE EVALUATIONS THAT PERTAIN TO QC REBAR PLACEMENT WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 6, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.

IN APPENDIX P, SSER-11, TRT CHARACTERIZED THIS ITEM AS AN ISOLATED OCCURRENCE, OR VERY FEW OCCURRENCES, WITH NO GENERIC IMPACT.

ISAF(a) 11.A  
STIR CPRT-5-003  
FSR: CIVIL

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08.10A-1 PARA E (2)  
SSER: 08 B & R REQUESTED A CHANGE IN  
ALLEG: PARA E (2) CONFIGURATION OF TWO ROWS BY  
ITEM: 08.10A-1 NINE LAYERS OF NO 9 REBAR AS  
SHOWN ON DWG. 2323-SI-0572, REV.  
4 TO A CONTINUOUS CIRCULAR  
ARRANGEMENT. REF. PG. K-52.

TRT

---

TRT CONCLUDED THAT THE CHANGE MADE TO THE NO. 9  
REINFORCING BARS DID NOT AFFECT THE LOAD-CARRYING  
CAPACITY OF THE STRUCTURE.

HOWEVER, THE RESULTS OF THESE EVALUATIONS WHICH  
PERTAIN TO QC REBAR PLACEMENT AND RECEIPT INSPECTION  
PROCEDURES WILL BE FURTHER ASSESSED AS A PART OF THE  
OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES  
ADDRESSED UNDER QA/QC CATEGORY 6, QC INSPECTION.  
THEREFORE, THE FINAL ACCEPTABILITY OF THESE  
EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY  
RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.

ISAP(\*) II.A

(REFER TO ITEM 11 B4F FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
\*\*\*\*\*  
TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.15A SSER: C8 ALLEG: PARA E (8) ITEM: 08.15A	PARA E (8) B & R CONSTRUCTION REQUESTED AUTHORIZATION TO SUBSTITUTE NO. 5 VERTICAL WALL REBAR IN LIEU OF THE NO. 8 WALL REBAR REQUIRED IN TWO CORNERS OF A WALL IN THE AUXILIARY BLDG. REF. PG. K-50.	TRT --- BASED ON THE FACT THAT THE NO. 8 VERTICAL WALL BARS WERE INSTALLED IN CORNERS AS REQUIRED, TRT CONCLUDED THAT THIS ISSUE HAS NO STRUCTURAL SAFETY SIGNIFICANCE.  HOWEVER, THE RESULTS OF THESE EVALUATIONS THAT PERTAIN TO QC REBAR PLACEMENT WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 6, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.	ISAP II A (REFER TO ITEM 11 B4F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COPANACHE PEAK STEAM ELECTRIC STATION (CPSES)  
TRT ISSUES -- SSERs 07, 08, 10 and 11  
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TUE/C/PRT RESOLUTION DOCUMENTS

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY
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ISAF(s) 11.B

\*\* 08 08.17A AQC-01  
SSER: 08 CONCRETE AIR ENTRAINMENT RECORDS  
ALLEG: AQC-01 WERE FALSIFIED. REF. PG. K-59.  
ITDN: 08.17A

TRT  
---

TRT CONCLUDED THAT THE ALLEGATION ABOUT FALSIFYING A CONCRETE AIR ENTRAINMENT RECORD IS TRUE. EVEN SO, THE COMPRESSIVE STRENGTH OF THE CONCRETE IN QUESTION WAS WITHIN SPECIFICATION. ACCORDINGLY, THE ABOVE ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE ALLEGATIONS RESOLVED ON THE BASIS OF ACCEPTABLE CONCRETE STRENGTH TEST RESULTS MAY NEED TO BE FURTHER ASSESSED PENDING THE RESOLUTION OF ALLEGATION AQC-7.

ALSO, THE RESULTS OF THESE EVALUATIONS PERTAINING TO QC INSPECTION PROCEDURES WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER OA/QC CATEGORY 3. RECORDS. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW AND THE SATISFACTORY RESOLUTION OF ALLEGATION AQC-7.

IN APPENDIX P, SSER-11, TRT CHARACTERIZED THIS ITDN AS AN ISOLATED OCCURRENCE, OR VERY FEW OCCURRENCES, WITH NO GENERIC IMPACT.

COMANCHE PEAK STEAM ELECTRIC PLANTATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 08 08 17B-1 AQC-02  
SSER: 08 SLUMP RECORDS WERE FALSIFIED.  
ALLEG: AQC-02 REF. PG K-58  
ITEM: 08 17B-1

ISAP 11.B

THE ALLEGATION THAT SLUMP TESTS ON APRIL 11 AND 13, 1978 WERE PERFORMED INCORRECTLY AND THAT THE RESULTS WERE FALSIFIED COULD WELL BE TRUE AND CANNOT BE REFUTED. TRT EXAMINED THE COMPRESSIVE STRENGTH TEST RESULTS OF THE CONCRETE IN QUESTION AND FOUND THAT THEY WERE WITHIN SPECIFICATIONS. ACCORDINGLY, THE ABOVE ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE ALLEGATIONS RESOLVED ON THE BASIS OF ACCEPTABLE CONCRETE STRENGTH TEST RESULTS MAY NEED TO BE FURTHER ASSESSED PENDING THE RESOLUTION OF ALLEGATION AQC-7. ALSO, THE RESULTS OF THESE EVALUATIONS PERTAINING TO QC INSPECTION PROCEDURES WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 3, RECORDS. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW AND THE SATISFACTORY RESOLUTION OF ALLEGATION AQC-7.

THE TRT PROGRAMMATIC REVIEW OF QA/QC CATEGORY 3, RECORDS, CONCLUDED THAT THE RECORDS SYSTEM WAS ADEQUATE AND ACCEPTABLE.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

TRT ISSUE RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 08 08.178-2 AQC-02  
SSER: 08 LABORATORY TESTS (AIR, SLUMP AND  
ALLEG: AQC-02 TEMP.) FOR CONCRETE PLACEMENTS  
FOR 10 CU YDS OR LESS, PRIOR TO  
1978, WERE NOT PERFORMED. REF.  
PG. K-59

TRT

---  
THE ALLEGATION THAT LABORATORY TESTS FOR SMALL  
PLACEMENTS WERE FALSIFIED WAS FOUND TO HAVE NO  
STRUCTURAL SAFETY SIGNIFICANCE BECAUSE CYLINDER  
STRENGTH TESTS WERE ALSO PERFORMED TO DEMONSTRATE  
ADEQUATE STRENGTH. IN INTERVIEWS WITH TRT, FORMER  
EMPLOYEES OF THE R.W. HUNY CO., WHO WORKED DURING THE  
TIME PERIOD CITED IN THE ALLEGATION, DENIED THE  
VALIDITY OF THE ALLEGATION. FURTHERMORE, THE LIMITED  
NUMBER OF CONCRETE PLACEMENTS OF LESS THAN 10 CU YDS,  
EVEN IF IMPROPERLY TESTED, WOULD HAVE LITTLE  
STRUCTURAL SAFETY SIGNIFICANCE.

ISAP(8) VII C, APPENDIX 10, 11 B

ACCORDINGLY, THE ABOVE ALLEGATION HAS NO STRUCTURAL  
SAFETY SIGNIFICANCE. HOWEVER, THE ALLEGATIONS RESOLVED  
ON THE BASIS OF ACCEPTABLE CONCRETE STRENGTH TEST  
RESULTS MAY NEED TO BE FURTHER ASSESSED PENDING THE  
RESOLUTION OF ALLEGATION AQC-7. ALSO, THE RESULTS OF  
THESE EVALUATIONS PERTAINING TO QC INSPECTION  
PROCEDURES WILL BE FURTHER ASSESSED AS A PART OF THE  
OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES  
ADDRESSED UNDER QA/QC CATEGORY 3, RECORDS. THEREFORE,  
THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE  
PREDICATED ON THE SATISFACTORY RESULTS OF THE  
PROGRAMMATIC REVIEW AND THE SATISFACTORY RESOLUTION OF  
ALLEGATION AQC-7.

THE TRT PROGRAMMATIC REVIEW OF QA/QC CATEGORY 3,  
RECORDS, CONCLUDED THAT THE RECORDS SYSTEM WAS  
ADEQUATE AND ACCEPTABLE. ALSO, IN APPENDIX F, SSER-11,  
TRT CHARACTERIZED THIS ITEM AS OCCURRING NOT AS  
FREQUENTLY AS TO IMPLY A GENERIC PROBLEM.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TUE/C/PRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 08 08 178-3 AQC-02  
SSER: 08 LABORATORY TESTS WERE SIGNED BY  
ALLEG: AQC-02 A LEVEL 11 INSPECTOR NOT PRESENT  
ITDM: 08 178-3 AT TIME THE TESTS WERE  
PERFORMED. REF. PG K-61

ISAP(s) II.B

TRT

---  
THE ALLEGATION THAT AN INSPECTOR SIGNED TEST RESULTS FOR WHICH HE COULD NOT HAVE HAD KNOWLEDGE, COULD NOT BE SUBSTANTIATED BECAUSE NO REPORTS COULD BE FOUND WHICH HAD BEEN SIGNED BY THE INSPECTOR ON THE DAYS ALLEGED. EVEN IF THE ALLEGATION WERE TRUE, TEST RESULTS SHOWED THE STRENGTH OF THE CONCRETE PLACED DURING THE PERIOD OF THE ALLEGATION TO BE ABOVE THE MINIMUM REQUIRED STRENGTH. ACCORDINGLY, THE ABOVE ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE ALLEGATIONS RESOLVED ON THE BASIS OF ACCEPTABLE CONCRETE STRENGTH TEST RESULTS MAY NEED TO BE FURTHER ASSESSED PENDING THE RESOLUTION OF ALLEGATION AQC-7.  
ALSO, THE RESULTS OF THESE EVALUATIONS PERTAINING TO QC INSPECTION PROCEDURES WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 3. RECORDS THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW AND THE SATISFACTORY RESOLUTION OF ALLEGATION AQC-7.

TRT CONCLUDED UNDER QA/QC CATEGORY 3 THAT THE RECORDS SYSTEM WAS ADEQUATE AND ACCEPTABLE.



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

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TRT/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE SOURCE

\*\* 08 08 17B-4 AQC-02  
SSER: 08 THE ALLEGER SIGNED A PRESSURE  
ALLEG: AQC-02 GAUGE QUALIFICATION TEST THAT HE  
ITEM: 08 17B-4 WAS NOT QUALIFIED TO CERTIFY.  
REF. PG. K-60 AND 61.

15AP(8) 11 B

TRT

---  
THE ALLEGATION THAT THE ALLEGER SIGNED A PRESSURE GAUGE TEST THAT HE WAS NOT QUALIFIED TO CERTIFY WAS FOUND TO HAVE NO STRUCTURAL SAFETY SIGNIFICANCE BECAUSE THE ALLEGER DID NOT ACTUALLY PERFORM THE CALIBRATION. ACCORDINGLY, THE ABOVE ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE ALLEGATIONS RESOLVED ON THE BASIS OF ACCEPTABLE CONCRETE STRENGTH TEST RESULTS MAY NEED TO BE FURTHER ASSESSED PENDING THE RESOLUTION OF ALLEGATION AQC-7.

ALSO, THE RESULTS OF THESE EVALUATIONS PERTAINING TO QC INSPECTION PROCEDURES WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 3, RECORDS. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW AND THE SATISFACTORY RESOLUTION OF ALLEGATION AQC-7.

TRT CONCLUDED UNDER QA/QC CATEGORY 3 THAT THE RECORDS SYSTEM WAS ADEQUATE AND ACCEPTABLE. ALSO, IN APPENDIX P, SSER-11, TRT CHARACTERIZED THIS ITEM AS OCCURRING NOT SO FREQUENTLY AS TO IMPLY A GENERIC PROBLEM.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

TRT/CPRM RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 08 08.17C AQC-03  
SSER: 08 CONCRETE AGGREGATE TESTS WERE  
ALLEG: AQC-03 FALSIFIED. REF. PG K-61  
ITEM: 08.17C

ISAP(s) II.B

TRT

TRT COULD NOT DETERMINE THE VALIDITY OF THE ALLEGATION THAT CONCRETE AGGREGATE TESTS WERE FALSIFIED. NEVERTHELESS, THE CONCRETE PLACED DURING THE PERIOD CITED IN THE ALLEGATION WAS CONSISTENT WITH THAT OF CONCRETE PLACED BEFORE AND AFTER THIS PERIOD.

ACCORDINGLY, THE ABOVE ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE ALLEGATIONS RESOLVED ON THE BASIS OF ACCEPTABLE CONCRETE STRENGTH TEST RESULTS MAY NEED TO BE FURTHER ASSESSED PENDING THE RESOLUTION OF ALLEGATION AQC-7. ALSO, THESE EVALUATIONS PERTAINING TO QC 3. RECORDS. THEREFORE, THESE EVALUATIONS WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 3. RECORDS. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW AND THE SATISFACTORY RESOLUTION OF ALLEGATION AQC-7.

TRT CONCLUDED UNDER QA/QC CATEGORY 3 THAT THE RECORDS SYSTEM WAS ADEQUATE AND ACCEPTABLE. ALSO, IN APPENDIX P, SSER-11, TRT CHARACTERIZED THIS ITEM AS AN ISOLATED OCCURRENCE OR VERY FEW OCCURRENCES WITH NO GENERIC IMPACT.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSES# 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 08 08 17D AOC-07  
SSES: 08 CONCRETE COMPRESSIVE STRENGTH  
ALLEG: AOC-07 TEST RESULTS WERE FALSIFIED.  
ITEM: 08 17D REF. PG. K-62 AND 64.

TRT

ISAP(a) 11.B  
PSR: CIVIL

TRT AGREED WITH THE MRC REGION IV STAFF THAT THE UNIFORMITY OF THE FRESH CONCA. PLACED DURING THIS PERIOD SUGGESTED THAT THERE WAS NO SERIOUS PROBLEM WITH THE HARDENED CONCRETE AND, THEREFORE, NO SERIOUS SAFETY PROBLEM. HOWEVER, THIS CONCLUSION WAS BASED ON AIR CONTENT, SLUMP AND STRENGTH TESTS, ALL OF WHICH HAD BEEN ALLEGED TO BE FALSIFIED. THE ISSUES REGARDING AIR CONTENT AND SLUMP WERE RESOLVED ON THE BASIS OF THE CONCRETE STRENGTH TEST RESULTS. DUE TO THE IMPORTANCE OF THOSE RESULTS, TRT CONCLUDED THAT ADDITIONAL ACTION BY TU ELECTRIC WAS NECESSARY TO PROVIDE CONFIRMATORY EVIDENCE THAT THE REPORTED CONCRETE STRENGTH TEST RESULTS WERE REPRESENTATIVE OF THE STRENGTH OF THE CONCRETE PLACED IN CATEGORY I STRUCTURES.

ACTIONS REQUIRED

TU ELECTRIC SHALL DETERMINE AREAS WHERE SAFETY-RELATED CONCRETE WAS PLACED BETWEEN JANUARY 1976 AND FEBRUARY 1977, AND PROVIDE A PROGRAM TO ASSURE ACCEPTABLE CONCRETE STRENGTH. THE PROGRAM SHALL INCLUDE TESTS SUCH AS THE USE OF RANDOM SCHMIDT HAMMER TESTS ON THE CONCRETE IN AREAS WHERE SAFETY IS CRITICAL. THE PROGRAM SHALL INCLUDE A COMPARISON OF THE RESULTS WITH THE RESULTS OF TESTS PERFORMED ON CONCRETE OF THE SAME DESIGN STRENGTH IN AREAS WHERE THE STRENGTH OF THE CONCRETE IS NOT QUESTIONED, TO DETERMINE IF ANY SIGNIFICANT VARIANCE IN STRENGTH OCCURS. TU ELECTRIC SHALL SUBMIT THE PROGRAM FOR PERFORMING THESE TESTS TO THE MRC FOR REVIEW AND APPROVAL PRIOR TO PERFORMING THE TESTS.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE SOURCE

\*\* 08 08 17E AQC-46  
SSER: 08 MIDPOUR TEST RECORDS ASSOCIATED  
ALLEG: AQC-46 WITH THE UNIT-1 CONTAINMENT  
ITEM: 08 17E BLDG. BASEMAT WERE FALSIFIED.  
REF. PG. 8-62 AND 64.

ISAP(\*) II B

TRT

THE VALIDITY OF THIS ALLEGATION COULD NOT BE DETERMINED. THE RESULTS OF COMPRESSION TESTS INDICATED THAT THE CONCRETE PLACED WAS OF HIGH QUALITY. ACCORDINGLY, THE ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE ALLEGATIONS RESOLVED ON THE BASIS OF ACCEPTABLE CONCRETE STRENGTH TEST RESULTS MAY NEED TO BE FURTHER ASSESSED PENDING THE RESOLUTION OF ALLEGATION AQC-7.

ALSO, THE RESULTS OF THESE EVALUATIONS PERTAINING TO QC INSPECTION PROCEDURES WILL BE FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 3. RECORDS. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW AND THE SATISFACTORY RESOLUTION OF ALLEGATION AQC-7.

TRT CONCLUDED UNDER QA/QC CATEGORY 3 THAT THE RECORDS SYSTEM WAS ADEQUATE AND ACCEPTABLE (SEE ITEM 11.83C). ALSO, IN APPENDIX P. SSER-11, TRT CHARACTERIZED THIS ITEM AS OCCURRING NOT SO FREQUENTLY AS TO IMPLY A GENERIC PROFILE.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08 18  
SSER: 08  
ALLEG: AQC-09  
ITEM: 08.18

AQC-09  
RECERTIFICATION EXAMINATIONS FOR  
R. W. HUNT INSPECTORS WERE GIVEN  
"OPEN BOOK" AND EXAMINATIONS  
WERE GIVEN WITH THE ANSWERS  
SUPPLIED. REF. PG. K-67.

TRT  
---

THE ALLEGATION THAT RECERTIFICATION TESTS WERE GIVEN  
OPEN BOOK COULD NOT BE REFUTED. WORK PERFORMED BY THE  
INDIVIDUAL IN QUESTION WAS AUDITED AND FOUND TO BE  
SATISFACTORY WHICH WOULD INDICATE HE WAS CAPABLE OF  
PERFORMING THE REQUIRED TESTING PROPERLY.  
ADDITIONALLY, TEST RESULTS FOR CONCRETE PLACED,  
INCLUDING COMPRESSION TESTS, SHOWED CONCRETE TO BE OF  
UNIFORM QUALITY. THIS SUPPORTED THE QUALIFICATIONS OF  
INSPECTORS INVOLVED. TRT CONCLUDED THAT THIS ISSUE HAS  
NO STRUCTURAL SAFETY SIGNIFICANCE.

THE RESULTS OF THESE EVALUATIONS WILL BE FURTHER  
ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC REVIEW  
CONCERNING INSPECTOR QUALIFICATIONS ADDRESSED UNDER  
QA/QC CATEGORY 4, TRAINING AND QUALIFICATION OF  
PERSONNEL. THEREFORE, THE FINAL ACCEPTABILITY OF THESE  
EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY  
RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.

(REFER TO ITEM 11 BAC FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.19A SSER: 04 ALLEG: AQC-04 ITEM: 08.19A	AQC-04 EQUIPMENT REQUIRED FOR AGGREGATE TESTING HAD NOT BEEN USED. REF. PG. K-71.	TRT --- TRT CONCLUDED THAT ALL REQUIRED TESTS FOR ASTM-C-289 WERE PERFORMED. ACCORDINGLY, THIS ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE EFFECTIVENESS OF QUALITY CONTROL IN THE LABORATORY WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 6, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.	(REFER TO ITEM 11.84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08.198 AQC-05  
SSER: 08 IMPROPER METHODS WERE USED TO  
ALLEG: AQC-05 DRY COARSE AGGREGATE FOR SIEVE  
ITEM: 06.198 ANALYSIS. REF. PG. K-72.

TRT

---

TRT CONCLUDED THAT THE ALLEGED SHORTCUT IN CARRYING  
OUT AGGREGATE GRADING TESTS WAS PERMITTED BY THE  
PROVISIONS OF THE SPECIFIED TEST METHOD IN ASTM C-136.  
ACCORDINGLY, THIS ALLEGATION HAS NO STRUCTURAL SAFETY  
SIGNIFICANCE.

HOWEVER, THE EFFECTIVENESS OF QUALITY CONTROL IN THE  
LABORATORY WILL BE FURTHER ASSESSED AS PART OF THE  
OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES  
ADDRESSED UNDER QA/QC CATEGORY 6, QC INSPECTION.  
THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION  
WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE  
PROGRAMMATIC REVIEW OF THIS SUBJECT.

(REFER TO ITEM 11.84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.19C SSER: 08 ALLEG: AQC-06 ITEM: 08.19C	AQC-06 SOME OF THE UNIT-1 CONTAINMENT BLDG. BASEMAT CONCRETE WAS PLACED WITHOUT REQUIRED TESTING. REF. PG. K-72.	TRT --- TRT CONCLUDED THAT ALL REQUIRED TESTING WAS CARRIED OUT IN CONNECTION WITH THE 6600-CUBIC-YD. BASEMAT PLACEMENT. ACCORDINGLY, THIS ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE EFFECTIVENESS OF QUALITY CONTROL IN THE LABORATORY WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 8, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.	(REFER TO ITEM 11.84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08.19D  
SSER: 08  
ALLEG: AQC-08  
ITEM: 08.19D

AQC-08  
CONCRETE COMPRESSIVE STRENGTH  
TEST SPECIMENS WERE LOADED AT AN  
EXCESSIVE RATE. REF. PG. K-71.

TRT

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TRT CONCLUDED THAT ALTHOUGH THE ALLEGATION MAY HAVE BEEN TRUE, THE FASTEST POSSIBLE LOADING OF TEST CYLINDERS WOULD HAVE INCREASED THE INDICATED STRENGTHS BY NO MORE THAN 6.5 PERCENT AND WOULD HAVE NO EFFECT ON ACCEPTABILITY OF THE CONCRETE. ACCORDINGLY, THIS ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. HOWEVER, THE EFFECTIVENESS OF QUALITY CONTROL IN THE LABORATORY WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 6, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.

(REFER TO ITEM 11.84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08 19F SSER: 08 ALLEG: AQC-48 ITEM: 08 19F	AQC-48 CONCRETE TEST CYLINDERS IN THE R. W. HUNT LABORATORY W/ST ROOM WERE ALLOWED TO DRY. REF. PG. K-73.	TRT --- TRT CONCLUDED THAT ALTHOUGH THE LABORATORY FAILED TO MAINTAIN WATER SUPPLY FOR BRIEF PERIODS, THESE PERIODIC BREAKDOWNS WOULD RESULT IN CONSERVATIVE STRENGTH RESULTS. ACCORDINGLY, THIS ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE.  HOWEVER, THE EFFECTIVENESS OF QUALITY CONTROL IN THE LABORATORY WILL BE FURTHER ASSESSED AS PART OF THE OVERALL PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 8, QC INSPECTION. THEREFORE, THE FINAL ACCEPTABILITY OF THIS EVALUATION WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.	(REFER TO ITEM 11.04F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

TRT ISSUE SUMMARY  
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ISSUE  
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ISSUE SOURCE  
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\*\* 08 08 20 AC-41  
SSER: 08 THERE WAS POOR WORKMANSHIP IN  
ALLEG: AC-41 THE USE OF ELASTIC JOINT FILLER  
ITEM: 08 20 MATERIAL, "ROTOFOAM", AS A  
TEMPORARY SPACER IN ORDER TO  
ACHIEVE THE REQUIRED AIR SPACE  
BETWEEN SEISMIC CATEGORY I  
STRUCTURES. REF. PG. K-75.

TRT  
---  
BASED ON REVIEW OF INSPECTION REPORTS AND RELATED DOCUMENTS, FIELD OBSERVATIONS AND DISCUSSIONS WITH TU ELECTRIC ENGINEERS, TRT COULD NOT DETERMINE WHETHER AN ADEQUATE AIR GAP HAS BEEN PROVIDED BETWEEN CONCRETE STRUCTURES.

FIELD INVESTIGATIONS BY BROWN & ROOT QC INSPECTORS INDICATED UNSATISFACTORY CONDITIONS DUE TO THE PRESENCE OF DEBRIS IN THE AIR GAP, SUCH AS WOOD WEDGES, ROCKS, CLUMPS OF CONCRETE AND ROTOFOAM. THE DISPOSITION OF THE NONCOMFORMANCE REPORT (NCR) RELATING TO THIS MATTER STATED THAT THE FIELD INVESTIGATION REVEALED THAT MOST OF THE MATERIAL HAD BEEN REMOVED. HOWEVER, TRT COULD NOT DETERMINE FROM THIS REPORT (NCR C-83-01067) THE EXTENT AND LOCATION OF THE DEBRIS REMAINING BETWEEN THE STRUCTURES.

BASED ON DISCUSSIONS WITH TU ELECTRIC ENGINEERS, TRT DETERMINED THAT FIELD INVESTIGATIONS WERE MADE BUT THAT NO PERMANENT RECORDS WERE MAINTAINED. IN ADDITION, IT IS NOT APPARENT THAT THE PERMANENT INSTALLATION OF ELASTIC JOINT FILLER MATERIAL (ROTOFOAM) BETWEEN THE SAFEGUARDS BUILDING AND THE REACTOR BUILDING, AND BELOW GRADE FOR THE OTHER CONCRETE STRUCTURES, IS CONSISTENT WITH THE SEISMIC ANALYSIS ASSUMPTIONS AND DYNAMIC MODELS USED TO ANALYZE THE BUILDINGS, AS THESE ANALYSES ARE DELINEATED IN THE FINAL SAFETY ANALYSIS REPORT (FSAR). TRT, THEREFORE, CONCLUDED THAT TU ELECTRIC HAS NOT ADEQUATELY DEMONSTRATED COMPLIANCE WITH FSAR SECTIONS 3.8.1.1.1, 3.8.4.5.1, AND 3.7.B.2.8, WHICH REQUIRE SEPARATION OF SEISMIC CATEGORY I BUILDINGS TO PREVENT SEISMIC INTERACTION DURING AN EARTHQUAKE.

DEPENDENT ON THE EXTENT OF NONCOMFORMANCE WITH FSAR SECTIONS 3.8.1.1.1, 3.8.4.5.1, AND 3.7.B.2.8, THE ALLEGATION IS JUDGED TO HAVE MERIT AND POTENTIAL SAFETY SIGNIFICANCE.

ISAP(\*) II C, SEC. 5.3, 5.21.1  
FSR: CIVIL  
STIR CPRT-5-010  
SDAR CP-05-27

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08 218

AC-14

SSER: 08

THERE WAS UNAUTHORIZED CUTTING

TRT

ISAP(\*) II E

ALLEG: AC-14

OF REBAR IN NONSPECIFIC

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(REFER TO ITEM 11 84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

ITEM: 08 218

LOCATIONS. (AC-18 AND AC-40 ARE ALSO COVERED) REF. PG. K-07.

TRT CONCLUDED THAT THIS ALLEGATION HAS NO STRUCTURAL SAFETY SIGNIFICANCE. ALLEGATIONS WERE NOT SPECIFIC, AS TO WHO MADE THE UNAUTHORIZED CUTS OF REBAR OR WHERE THEY TOOK PLACE. THE NUMBER OF UNAUTHORIZED CUTS, IF TRUE, WOULD HAVE AN INCONSEQUENTIAL EFFECT ON THE SAFETY OF THE STRUCTURE. HOWEVER, THE RESULTS OF THESE EVALUATIONS WILL BE FURTHER ASSESSED AS A PART OF THE PROGRAMMATIC REVIEW CONCERNING PROCEDURES ADDRESSED UNDER QA/QC CATEGORY 0, QC INSPECTIONS. THEREFORE, THE FINAL ACCEPTABILITY OF THESE EVALUATIONS WILL BE PREDICATED ON THE SATISFACTORY RESULTS OF THE PROGRAMMATIC REVIEW OF THIS SUBJECT.

COMMONWEALTH PEAK ELECTRIC STATION (CPSES)

TRT ISSUE -- SSEP- 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPWT RESOLUTION DOCUMENTS
NA 01 98 212 SSER: 08 ALLEG: AC-04 ITPM: 05 00	C-08 UNAUTHORIZED CUTTING OF WEEDS IN NONSPECIFIC LOCATIONS. REF. DG. K-8.	SITE AC-14, IT-21 08 218	

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.21D SSER: 08 ALLEG: AC-40 ITEM: 08 21D	AC-40 THERE WAS UNAUTHORIZED CUTTING OF REBAR IN NONSPECIFIC LOCATIONS. REF. PG. K-87.	SEE AC-14, ITEM 08.21B.	

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.21E SSER: 08 ALLEG: AC-15 ITEM: 08 21E	AC-15 THERE WAS UNAUTHORIZED CUTTING OF REBAR DURING INSTALLATION OF TROLLEY PROCESS AISLE RAILS IN THE FUEL HANDLING BLDG. REF. PG. K-87.	TRT --- REVIEW OF THE REINFORCEMENT DRAWINGS REVEALED THAT THE LAYOUT OF THE EAST-WEST REINFORCEMENT AND THE TROLLEY PROCESS AISLE RAILS WAS SUCH THAT ONLY ONE BAR OF THE EAST-WEST REINFORCEMENT COULD BE CUT BY DRILLING HOLES FOR RAIL ANCHORS. HOWEVER, IF NINE INCH HOLES WERE DRILLED, BOTH LAYERS OF THE NO. 18 REINFORCING BAR WOULD BE CUT. IF THE TEN HOLES WERE ACTUALLY DRILLED NINE INCHES DEEP, THEN THE ALLEGATION THAT REINFORCEMENT WAS CUT WITHOUT PROPER AUTHORIZATION MAY BE VALID.  ACTION REQUIRED ----- THIS ALLEGATION WILL REMAIN OPEN UNTIL TU ELECTRIC PROVIDES THE FOLLOWING:  1. INFORMATION TO DEMONSTRATE THAT ONLY THE NO. 18 REINFORCING STEEL IN THE FIRST LAYER WAS CUT, OR  2. DESIGN CALCULATIONS TO DEMONSTRATE THAT STRUCTURAL INTEGRITY IS MAINTAINED IF THE NO. 18 REINFORCING STEEL ON BOTH THE FIRST AND THIRD LAYERS WAS CUT.	ISAP(a) II.E PSR: CIVIL

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08.23  
SSER: 08  
ALLEG: AQC-45  
ITEM: 08.23

AQC-45  
SOMEBODY PRODUCED INCORRECT  
SCALE READINGS AT THE CONCRETE  
BATCH PLANT BY LEANING ON THE  
WIRES CONNECTING THE WEIGHT  
HOPPERS TO THE SCALES. REF. PG.  
K-95.

TRT

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TRT CONCLUDED THAT THIS ALLEGATION CAN NEITHER BE  
VERIFIED NOR REFUTED. IF TAMPERING DID OCCUR, IT WAS  
CONFINED TO SCALES WHERE EITHER NO EFFECT OR A  
BENEFICIAL EFFECT ON THE CONCRETE OCCURRED.  
ACCORDINGLY, THIS ALLEGATION HAS NO STRUCTURAL SAFETY  
SIGNIFICANCE. HOWEVER, THE RESULTS OF THIS EVALUATION  
PERTAINING TO QC CONTROLS AT THE BATCH PLANT WILL BE  
FURTHER ASSESSED AS A PART OF THE OVERALL PROGRAMMATIC  
REVIEW CONCERNING PROCEDURES ADDRESSED UNDER "QC  
INSPECTION."

ISAP(a) VII.C, APPENDIX 18

(REFER TO ITEM 11 84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08 31 SSER: 08 ALLEG: AM-03 ITEM: 08 31	AM-03 DURING HOT FUNCTIONAL TESTING, EXPANSION CAUSED THE REACTOR PRESSURE VESSEL REFLECTIVE INSULATION (RPVRI) TO TOUCH THE BIOLOGICAL SHIELD WALL. REF. PG. K-99.	TRT --- BASED ON A REVIEW OF DOCUMENTATION AND DISCUSSIONS, TRT CONCLUDED THAT THE RPVRI DID MAKE CONTACT WITH CONSTRUCTION DEBRIS, BUT DID NOT CONTACT THE STEEL-LINED CONCRETE BIOLOGICAL SHIELD WALL AS SPECIFICALLY ALLEGED. DURING FIBER OPTIC INSPECTION, TU ELECTRIC PERSONNEL OBSERVED NO VISIBLE DAMAGE TO THE REFLECTIVE INSULATION, AND ALL CORRECTIVE MODIFICATIONS WERE ACCOMPLISHED AND ACCEPTED IN ACCORDANCE WITH WESTINGHOUSE PROCEDURE MP 2.7.1-TBX-3 AND FCMS TBXM-10609, 10611 AND 10612.  TRT CONCLUDED THAT THE REACTOR PRESSURE VESSEL WAS SET WITHIN THE DESIGN LOCATION TOLERANCE. TRT COULD NOT SUBSTANTIATE THE ALLEGATION AS STATED, ALTHOUGH IT DOES HAVE SOME MERIT BECAUSE AN UNSATISFACTORY CONDITION DID EXIST IN THAT THE REFLECTIVE INSULATION MADE CONTACT WITH DEBRIS. HOWEVER, THIS ALLEGATION HAS BOTH SAFETY SIGNIFICANCE AND GENERIC IMPLICATIONS BECAUSE OF PERIPHERAL ISSUES; I.E., FAILURE TO ASSURE THAT PROPER DESIGN CHANGES WERE COMMUNICATED BETWEEN ORGANIZATIONS, FAILURE TO DETERMINE AND REPORT THE UNDERLYING CAUSE OF A SIGNIFICANT DEFICIENCY, AND FAILURE TO ENSURE A PROPER GAP BETWEEN THE SUPPORT CHANNEL AND SHIELD WALL WHEN THE VESSEL WAS SET.  IN APPENDIX P, SSER-11, TRT CHARACTERIZED THIS ITEM AS AN ISOLATED OCCURRENCE, OR VERY FEW OCCURRENCES, WITH NO GENERIC IMPACT.  ACTIONS REQUIRED ----- TU ELECTRIC SHALL:  1. REVIEW THEIR PROCEDURES FOR APPROVAL OF DESIGN CHANGES TO NONNUCLEAR SAFETY-RELATED EQUIPMENT, SUCH AS THE RPVRI, AND MAKE REVISIONS AS NECESSARY TO ENSURE THAT SUCH DESIGN CHANGES DO NOT ADVERSELY AFFECT SAFETY-RELATED SYSTEMS.	ISAP(*) VI A, SEC. 5.5, 5.8 STIR CPRT-5-010

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRI ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRI ISSUE SUMMARY

TUE/CPRI RESOLUTION DOCUMENTS

2. REVIEW PROCEDURES FOR REPORTING SIGNIFICANT DESIGN/CONSTRUCTION DEFICIENCIES, PURSUANT TO 10CFR PART 50.55 (\*), AND MAKE CHANGES AS NECESSARY TO ENSURE THAT COMPLETE EVALUATIONS ARE SPECIFIED.

3. PROVIDE ANALYSIS THAT VERIFIES THAT THE COOLING FLOW IN THE ANNULUS BETWEEN THE RPVRI AND THE SHIELD WALL OF UNIT 2 IS ADEQUATE FOR THE AS-BUILT CONDITION.

4. VERIFY DURING UNIT 1 HOT FUNCTIONAL TESTING THAT COMPLETED MODIFICATIONS TO THE RPVRI SUPPORT RING NOW ALLOW ADEQUATE COOLING AIR FLOW.

TRI NOTED THAT CONTROL OF DEBRIS IN CRITICAL SPACINGS BETWEEN COMPONENTS AND/OR STRUCTURES WAS IDENTIFIED AS AN ISSUE BOTH IN THE INVESTIGATION OF THIS ALLEGATION AND IN THE CIVIL AND STRUCTURAL AREA CONTAINED IN DARRELL G. EISENHUT'S LETTER OF SEPTEMBER 18, 1984, TO TU ELECTRIC. ACCORDINGLY, TU ELECTRIC SHALL ALSO:

1. IDENTIFY AREAS IN THE PLANT WITH SPACING BETWEEN COMPONENTS AND/OR STRUCTURES THAT ARE NECESSARY FOR PROPER FUNCTIONING OF SAFETY-RELATED COMPONENTS, SYSTEMS, OR STRUCTURES IN WHICH UNWANTED DEBRIS MAY COLLECT AND BE UNDETECTED OR BE DIFFICULT TO REMOVE.

2. INSPECT THE AREAS AND SPACES IDENTIFIED AND REMOVE DEBRIS.

3. INSTITUTE A PROGRAM TO MINIMIZE THE COLLECTION OF DEBRIS IN CRITICAL SPACES AND PERIODICALLY REINSPECT THESE SPACES AND REMOVE ANY DEBRIS WHICH MAY BE PRESENT.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 08 08 42  
SSER: 08  
ALLEG: AM-13  
ITEM: 08 42

AM-13  
PUMPS MANUFACTURED BY THE  
HAYWARD TYLER PUMP COMPANY WERE  
INSTALLED IN COMANCHE PEAK  
SAFETY SYSTEMS. THESE PUMPS MAY  
HAVE UNIDENTIFIED DEFICIENCIES  
BECAUSE OF THE POOR QA PROGRAM  
AT HAYWARD TYLER. REF. PG.  
K-117.

TRT

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TRT CONCLUDED THAT TU ELECTRIC HAD IDENTIFIED HAYWARD  
TYLER PUMPS ONSITE, TESTED THE PUMPS, AND REPORTED  
RESULTS AS REQUIRED BY IEB-83-05. TRT ALSO CONCLUDED  
THAT THE ALLEGATION HAD POTENTIAL SAFETY SIGNIFICANCE  
AND GENERIC IMPLICATIONS. HOWEVER, TU ELECTRIC'S  
COMPLIANCE WITH IEB 83-05 HAS ELIMINATED THOSE  
CONCERNS WITH RESPECT TO UNIT 1 STATION SERVICE WATER  
PUMPS (SSWP#). THE UNIT 2 PUMPS WILL BE INSPECTED  
DURING UNIT 2 PREOPERATIONAL TESTING.

ACTION REQUIRED

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TU ELECTRIC SHALL VERIFY COMPLIANCE WITH IEB 83-05  
REQUIREMENTS FOR CPSES UNIT 2 SSWP# DURING  
PREOPERATIONAL TESTING FOR UNIT 2.

DIR E-0492

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.44A SSER: 08 ALLEG: AM-15 ITEM: 08.44A	AM-15 SHIMS FOR THE RAIL SUPPORT SYSTEM FOR THE POLAR CRANE WERE ALTERED DURING INSTALLATION. REF. PG. K-121.	TRT --- TRT OBSERVED LARGE GAPS BETWEEN SHIMS AND THE 28 CRANE GIRDER TO GIRDER SUPPORT BRACKETS. IN ADDITION, TRT OBSERVED THAT NINE GIRDERS HAD GAPS IN EXCESS OF 1/16 INCH EXTENDING UNDER THE BOTTOM FLANGE; THAT THE COMPLETE RAIL HAD MOVED CIRCUMFERENTIALLY; THAT THE 3/8 INCH DESIGNED GAP BETWEEN THE ENDS OF THE RAIL SECTION VARIED FROM 0.0 INCHES TO 0.875 INCHES; AND THAT RAIL-TO-RAIL GROUND WIRES AND TWO CADWELDS WERE BROKEN. BASED ON THE ABOVE INSPECTIONS, TRT CONCLUDED THAT THE ALLEGATION IS SUBSTANTIATED AND IS POTENTIALLY SAFETY SIGNIFICANT.  IN APPENDIX P, SSER-11, TRT CHARACTERIZED THIS ITEM AS AN ISOLATED OCCURRENCE OR VERY FEW OCCURRENCES WITH NO GENERIC IMPACT.  THE ALLEGATION FOR POLAR CRANE RAIL MOVEMENT WAS CLASSIFIED AS A DESIGN DEVIATION, REQUIRING A SAFETY-SIGNIFICANCE EVALUATION. CPRT DECIDED NOT TO INVESTIGATE THE POTENTIAL SAFETY SIGNIFICANCE OF THIS DEVIATION AND TO PROCEED DIRECTLY TO CORRECTIVE ACTION.  INVESTIGATION BY THE CPSES PROJECT, AS WELL AS BY CPRT, CONFIRMED THAT THE EARLIER ATTEMPTS TO CONTROL THE CIRCUMFERENTIAL MOVEMENT OF THE CRANE RAILS WERE INADEQUATE. CPRT CONCLUDED THAT THE RAIL SPLICE DESIGN PROPOSED BY G&H AND FINALIZED BY SWEC WILL CORRECT ANY PROBLEMS OF MISALIGNED RAIL ENDS AT THE JOINTS. THE ANALYTICAL WORK BY SWEC SUPPORTS A CONCLUSION THAT THE SPLICE BARS WILL BE STRUCTURALLY ADEQUATE TO LIMIT THE GAPS BETWEEN RAIL ENDS TO THE PRESCRIBED MAXIMUMS WITHOUT UNDULY RESTRICTING THE CAPABILITY OF THE RAIL SUPPORT SYSTEM TO ALLOW FOR EXPANSIONS AND CONTRACTIONS RESULTING FROM TEMPERATURE VARIATIONS AND POSTULATED ACCIDENT CONDITIONS. (ISAP VI B RESULTS REPORT PG 29 AND 32).  ACTIONS REQUIRED -----	ISAP(*) VI B STIR CPRT-5-005 SDAR CP 86-60 SDAR CP 86-61

CORVACHIE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
		<p>TU ELECTRIC SHALL:</p> <ol style="list-style-type: none"><li>1. INSPECT THE POLAR CRANE RAIL GIRDER SEAT CONNECTIONS FOR THE PRESENCE OF GAPS THAT REDUCE THE BEARING SURFACE TO LESS THAN THE WIDTH OF THE BOTTOM FLANGE.</li><li>2. PERFORM AN ANALYSIS THAT WILL DETERMINE WHETHER EXISTING GAPS ARE ACCEPTABLE OR IF CORRECTIVE ACTIONS ARE REQUIRED. TU ELECTRIC SHALL DETERMINE IF ADDITIONAL RAIL MOVEMENT IS OCCURRING AND, IF SO, PROVIDE AN EVALUATION OF SAFETY SIGNIFICANCE AND THE NEED FOR CORRECTIVE ACTION.</li><li>3. PERFORM A GENERAL INSPECTION OF THE POLAR CRANE RAIL AND THE RAIL SUPPORT SYSTEM, CORRECT IDENTIFIED DEFICIENCIES OF SAFETY SIGNIFICANCE, AND PROVIDE AN ASSESSMENT OF THE ADEQUACY OF EXISTING MAINTENANCE AND/OR SURVEILLANCE PROGRAMS.</li></ol>	
		<p>THE GAPS IN THE SEISMIC RESTRAINTS WERE THE SUBJECT OF WRC INSPECTION REPORTS 50-445/82-11, 50-446/82-10, AND 50-445/84-08. VIOLATIONS WERE ISSUED IN EACH REPORT. ALTHOUGH THESE MATTERS MAY HAVE BEEN EVALUATED AND A RESPONSE MADE TO THE REFERENCED VIOLATIONS, TU ELECTRIC SHALL CONSIDER THIS MATTER AS A PART OF THE INSPECTION OF THE POLAR CRANE SYSTEM.</p>	

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.44B SSER: 08 ALLEG: AM-16 ITEM: 08.44B	AM-16 THE POLAR CRANE RAIL MOVES DURING CRANE OPERATION SUCH THAT LARGE GAPS DEVELOP. REF. PG. K-121.	<p>THE ALLEGATION FOR POLAR CRANE RAIL MOVEMENT WAS CLASSIFIED AS A DESIGN DEVIATION, REQUIRING A SAFETY-SIGNIFICANCE EVALUATION. CPRT DECIDED NOT TO INVESTIGATE THE POTENTIAL SAFETY SIGNIFICANCE OF THIS DEVIATION AND TO PROCEED DIRECTLY TO CORRECTIVE ACTION.</p> <p>INVESTIGATIONS BY THE CPSES PROJECT, AS WELL AS CPRT, CONFIRMED THAT THE EARLIER ATTEMPTS TO CONTROL THE CIRCUMFERENTIAL MOVEMENT OF THE CRANE RAILS WERE INADEQUATE. CPRT CONCLUDED THAT THE RAIL SPLICE DESIGN PROPOSED BY G&amp;H AND FINALIZED BY SWEC WILL CORRECT ANY PROBLEMS OF MISALIGNED RAIL ENDS AT THE JOINTS. THE ANALYTICAL WORK BY SWEC SUPPORTS A CONCLUSION THAT THE SPLICE BARS WILL BE STRUCTURALLY ADEQUATE TO LIMIT THE GAPS BETWEEN RAIL ENDS TO THE PRESCRIBED MAXIMUMS WITHOUT UNDULY RESTRICTING THE CAPABILITY OF THE RAIL SUPPORT SYSTEM TO ALLOW FOR EXPANSIONS AND CONTRACTIONS RESULTING FROM TEMPERATURE VARIATIONS AND POSTULATED ACCIDENT CONDITIONS. (ISAP VI.B RESULTS REPORT PG 29 AND 32).</p> <p>TRT CHARACTERIZATION AND CPRT RESOLUTION OF THIS ALLEGATION IS DISCUSSED UNDER ITEM 8.44 (AM-15).</p>	ISAP(a) VI B STIR CPRT-S-005

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08 47 SSER: 08 ALLEG: AM-19 ITEM: 08 47	AM-19 THE POSTING REQUIREMENTS FOR NRC FORM 3 WERE NOT MET FROM 1977-1982. REF. PG. K-131.	TRT --- REVIEW OF NRC AND TU ELECTRIC DEPOSITIONS; INTERVIEWS WITH THE RADIATION PROTECTION ENGINEER (RPE), THE TU ELECTRIC ADMINISTRATIVE AND CONTROL SUPERVISOR AND THE TEXAS UTILITIES SERVICE INC. PERSONNEL MANAGER, AND INSPECTION OF BULLETIN BOARDS THAT WERE IN PLACE, TRT CONCLUDED THAT LETTERS WERE POSTED PRIOR TO OCTOBER 1982 AND THAT THE NRC FORM-3 WAS POSTED IN A SUFFICIENT NUMBER OF PLACES TO MEET THE INTENT OF THE APPLICABLE REGULATIONS AFTER THE POSTING REQUIREMENTS BECAME EFFECTIVE ON OCTOBER 12, 1982. BECAUSE THERE WAS NO REQUIREMENT TO POST NRC FORM-3 BETWEEN 1977 AND OCTOBER 1982 AND THE FORM WAS POSTED FOR THE BALANCE OF 1982 UNTIL THE PRESENT, THIS ALLEGATION WAS NOT SUBSTANTIATED.  ACTION REQUIRED ----- TU ELECTRIC SHALL FORMALLY ESTABLISH IN WRITING THE ASSIGNMENT OF RESPONSIBILITY FOR POSTING AND MAINTAINING NRC FORM-3 IN PROMINENT LOCATIONS.	NEO 1.08

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 08 08.49 SSER: 08 ALLEG: AM-21 ITEM: 08.49	AM-21 THERE WAS WIDESPREAD DRUG ABUSE AT COMANCHE PEAK, AND MANAGEMENT DID NOT GIVE PROPER ATTENTION TO THIS PROBLEM. REF. PG. K-133.	TRT --- TRT CONCLUDED THAT TU ELECTRIC HAD PERFORMED AN INVESTIGATION, IDENTIFIED BROWN & ROOT (B&R) PERSONNEL IMPLICATED BY THEIR REFUSAL TO TAKE POLYGRAPH TESTS AND TERMINATED EMPLOYMENT OF THOSE PERSONNEL. ALTHOUGH THIS ALLEGATION HAD POTENTIAL SAFETY SIGNIFICANCE AND GENERIC IMPLICATIONS, TU ELECTRIC WROTE A NONCONFORMANCE REPORT THAT IDENTIFIED ALL WORK PERFORMED BY THE IMPLICATED B & R INSPECTORS AND REINSPECTED THAT WORK WITH DIFFERENT INSPECTORS. THE REINSPECTION IDENTIFIED ONLY MINOR DEFICIENCIES THAT WERE REFERRED TO ENGINEERING FOR FINAL EVALUATION AND CORRECTION. THIS ALLEGATION APPEARED TO HAVE SOME SUBSTANCE. WITH RESPECT TO MANAGEMENT, TRT CONCLUDED THAT TU ELECTRIC AND SITE CONTRACTOR MANAGEMENT AND SUPERVISION HAD IMPLEMENTED STRONG MEASURES TO PREVENT DRUG USE AND ABUSE BY CPSES PERSONNEL. IN FACT, THOSE COMMITMENTS TO SUCH A PROGRAM EXCEEDED EXISTING NRC REQUIREMENTS AND STANDARDS. THEREFORE, THERE WAS NO EVIDENCE THAT MANAGEMENT DID NOT GIVE PROPER ATTENTION TO THE ALLEGED PROBLEM TO PREVENT DRUG ABUSE OR DEAL WITH THE INCIDENT THAT OCCURRED.	MCR M-84-01840 R1 TUE CORP FILE II-5
		ACTION REQUIRED ----- TU ELECTRIC SHALL PROVIDE A REPORT OF FINDINGS INCLUDING THE FINAL ENGINEERING ANALYSIS OF THE MINOR DEFICIENCIES RESULTING FROM THE REINSPECTION OF WORK PERFORMED BY INSPECTORS IMPLICATED IN DRUG ABUSE.	



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.001 SSER: 10 ALLEG: AW-34 ITEM: 10 001	AW-34 TEMPORARY HANGER WAS WELDED WITHOUT PROCEDURES OR BY AN UNQUALIFIED WELDER. REF. PG N-37	TRT --- TRT FOUND TEMPORARY HANGERS WERE USED AND EXCEPT FOR ATTACHMENT WELDS TO COMPONENTS OR PERMANENT PLANT STRUCTURES, NO WRITTEN PROCEDURES EXISTED.  ACTION REQUIRED ----- TU ELECTRIC SHALL MODIFY GIBBS & HILL (G&H) SPECIFICATION 2323-MS-100 REQUIREMENTS AND PROVIDE PROCEDURES FOR THE FABRICATION AND INSTALLATION OF TEMPORARY SUPPORTS TO ASSURE THAT THE QUALITY OF PIPING AND EQUIPMENT SO SUPPORTED IS NOT ADVERSELY AFFECTED. THIS ACTION IS RELATED TO THAT REQUIRED FOR MECHANICAL & PIPING CATEGORY II, ALLEGATION AP-13, ITEM 1.	ISAP(*) V.E

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01/30/88

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.005A AM-49  
SSER: 10 THIS ALLEGATION DUPLICATES  
ALLEG: AM-49 AM-14  
ITEM: 10.005A REF. PG. M-57

SEE ITEM 10.005.

ISAP(\*) V.D  
(REFER TO ITEM 10.005 FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10 005B AM-51 SSER: 10 THIS ALLEGATION DUPLICATES ALLEG. AM-51 AM-14 ITEM: 10 005B REF. PG. B-57		SEE ITEM 10.005.	ISAP(a) V.D (REFER TO ITEM 11.005 FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE ----- ISSUE ----- TRT ISSUE SUMMARY ----- TUE/CPRI RESOLUTION DOCUMENTS -----

\*\* 10 10.00XC AM-55  
SSER: 10 THIS ALLEGATION DUPLICATES SEE ITEM 10.205.  
ALLEG: AM-55 AM-1A  
ITEM: 10.00XC REF. PG. B-57

ISAP(s) V D  
(REFER TO ITEM 10.005 FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSXS)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPMT RESOLUTION DOCUMENTS
** 10 10.010 SSER: 10 ALLEG: AP-04 ITEM: 10.010	AP-04 TWO OR THREE 100-TON JACKS WERE USED TO COLD SPRING A 28-INCH LINE IN THE REACTOR COOLANT SYSTEM. REF PG. W-99	TRT --- TRT WAS NOT ABLE TO SUBSTANTIATE THE ALLEGATION REGARDING SPRINGING IN THE REACTOR COOLANT SYSTEM (RCS) PIPING. TRT BELIEVED THAT THE ALLEGER HAD MISTAKENLY IDENTIFIED JACKING ACTIVITIES DURING INSTALLATION OF HOT-LEG PIPING BETWEEN THE REACTOR VESSEL AND THE STEAM GENERATOR AS COLD SPRINGING ACTIVITIES. JACKING WAS USED TO MAINTAIN VERTICAL POSITION OF THE STEAM GENERATOR DURING AXIAL MOTIONS OF THE HOT LEG PIPING DUE TO WELD SHRINKAGE.  OTHER TRT INVESTIGATIONS OF COLD SPRINGING AND SPRINGING DETERMINED THAT NO PIPING SYSTEMS WERE INTENDED TO BE, OR HAD BEEN, COLD SPRUNG BUT THAT, CONTRARY TO THE REQUIREMENTS OF TU ELECTRIC PROCEDURE CP-EP-4.0, UNAUTHORIZED AND UNDOCUMENTED SPRINGING OF PIPING SYSTEMS HAD OCCURRED. TRT, HOWEVER, CONCLUDED THAT THE SAFETY SIGNIFICANCE OF THE UNAUTHORIZED AND UNDOCUMENTED SPRINGING PRACTICE MAY BE NEGLIGIBLE.  TRT ALSO FOUND THAT THE BROWN & ROOT (BAR) PROCEDURE: CP-CRM-6.9E & QI-QAP 11.1.26 FAILED TO REFLECT ADEQUATELY COLD SPRINGING IN ALL ISSUES.	ISAP(*) V.E CP-CRM-6.90, CP-CRM-6.9E, AQP 11.1, AQP 11.2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 06, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

SSER: 10 10-011  
ALLEG: AP-13  
ITEM: 10 011  
AP-13  
USING THE POLAR CRANE AND 3-TON  
"COME ALONGS." A 32-INCH MAIN  
STEAM LINE WAS FORCED 6-INCHES  
VERTICALLY AND 4-INCHES  
HORIZONTALLY. REF. PG. N-99

TRT

ISAP(a) V Z  
PSR: MECHANICAL  
LARGE BORE PIPING AND PIPE SUPPORTS

TRT INVESTIGATION CONCLUDED THAT THE ALLEGATION WAS  
SUBSTANTIATED IN PART. TRT REQUIRED EIGHT ACTIONS TO  
BE COMPLETED BY TU ELECTRIC

ACTION REQUIRED

TRT WILL REQUIRE THE FOLLOWING TU ELECTRIC ACTIONS:

1. MODIFY GIBBS & HILL SPECIFICATION 2323-NB-100,  
AND INSTITUTE PROCEDURES TO SUPPORT THE MAIN STEAM  
LINE DURING FLUSHING AND PROVIDE TEMPORARY SUPPORTS  
FOR PIPING AND EQUIPMENT IN GENERAL TO ASSURE THAT THE  
QUALITY OF AFFECTED PIPING AND EQUIPMENT IS NOT  
AFFECTED.

2. ASSESS STRESSES IN THE PORTIONS OF THE UNIT 1,  
LOOP 1 MAIN STEAM AND FEEDWATER LINES THAT WERE  
AFFECTED IN THE SEQUENCE OF EVENTS INVOLVED DURING  
THEIR INITIAL INSTALLATION, FLUSHING AND FINAL  
INSTALLATION. CONDITIONS OF CONCERN ARE:

- a. THE CONDITION WHEN THE LINES WERE FULL OF WATER  
AND TEMPORARY SUPPORTS HAD SAGGED OR SETTLED.
- b. THE CONDITION WHEN VIBRATIONS OF THE TEMPORARY  
LINE COULD HAVE OCCURRED.
- c. THE CONDITION WHEN FORCES WERE APPLIED BY THE  
POLAR CRANE AND COME-ALONGS.

THESE ASSESSMENTS SHALL BE BASED ON APPROPRIATE  
PIPING CONFIGURATIONS INVOLVED.

3. PERFORM A NONDESTRUCTIVE EXAMINATION OF  
LOCATIONS IN THE UNIT 1, LOOP 1, MAIN STEAM AND  
FEEDWATER PIPING INVOLVED WHERE STRESSES GREATER THAN  
RELEVANT STRESS ALLOWABLES WERE EXCEEDED DURING THE  
CONDITIONS OF CONCERN IN a. THROUGH c. ABOVE.

4. REVIEW THE EXISTING BASELINE ULTRASONIC  
EXAMINATIONS FOR THOSE PORTIONS OF THE UNIT 1, LOOP 1,  
MAIN STEAM AND FEEDWATER PIPING INVOLVED IN ALL THE  
CONDITIONS OF CONCERN IN a. THROUGH c. ABOVE FOR

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

UNACCEPTABLE INDICATIONS.

- 5. REVIEW RECORDS OF HYDROSTATIC TESTING OF THE UNIT 1, LOOP 1, MAIN STEAM AND FEEDWATER PIPING TO VERIFY THE QUALITY OF PIPING INVOLVED IN THE INCIDENT.
- 6. PROVIDE SIMILAR ASSESSMENTS FOR CIRCUMSTANCES INVOLVED IN THE LIFTING INCIDENT IDENTIFIED DURING TRT INSPECTIONS OF THE UNIT 1, LOOP 4, MAIN STEAM LINE.
- 7. PROVIDE ASSESSMENTS OF EFFECTS ON QUALITY OF SAFETY-RELATED PIPING AND EQUIPMENT WHICH WERE INVOLVED IN SIMILAR INCIDENTS OF SAGGING, SETTLEMENTS AND FAILURES, IF ANY, OF TEMPORARY SUPPORTS.
- 8. DOCUMENT THE RESULTS OF ANALYSIS, EXAMINATIONS AND REVIEWS AND SUBMIT THEM IN A REPORT FOR TRT REVIEW.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.014  
SSER: 10  
ALLEG: AP-15  
ITDH: 10.014

AP-15

IN SEPTEMBER 1982, A PIPE THAT WAS 1/2 INCH OUT-OF-ROUND WAS INSTALLED IN THE CONTAINMENT SPRAY SYSTEM. DURING ITS INSTALLATION, THE PIPE WAS BUTTERED EXTENSIVELY TO ACHIEVE THE REQUIRED MINIMUM WALL THICKNESS. REF. PG. N-119

TRT

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THE TRT INVESTIGATION SUBSTANTIATED THE ALLEGATION THAT THE 1/2-INCH NONCONFORMING PIPE WAS BUTTERED EXTENSIVELY (ALLEGATION AP-15). THE TRT FOUND THAT EXTENSIVE WELD METAL SURFACING WAS PERFORMED IN THE VICINITY OF WELD FW 13-4A TO REPAIR AN EXTENSIVE AREA OF MINIMUM WALL THICKNESS VIOLATION. THE TRT COULD NOT SUBSTANTIATE THE ALLEGATION THAT UNEVEN BUTTERING WAS PERFORMED TO ACHIEVE FITUP. THE WELD DATA PACKAGE INDICATED THAT PROPER FITUP AND ACCEPTABLE VISUAL AND RADIOGRAPHIC INSPECTION RESULTS WERE OBTAINED.

ISAP(s) VII.A.2; VII.C, APPENDIX 12  
CAR 87-72, 87-067, 87-029  
PSR: MECHANICAL

TRT EVALUATIONS OF THE INSTALLATION OF THE NONCONFORMING PIPE BY JACKS AND CLAMPS, AS SUGGESTED BY NCR 40155, REV. 5, INDICATE THAT SIGNIFICANT STRESSES COULD HAVE OCCURRED DURING INSTALLATION WHICH WERE NOT INCLUDED IN THE PIPE STRESS ANALYSIS. CONSERVATIVE CALCULATIONS PERFORMED BY THE TRT INDICATED THAT SIGNIFICANT ELASTICALLY CALCULATED STRESSES COULD HAVE OCCURRED DURING INSTALLATION OF THE 1/2-INCH OUT-OF-ROUND PIPE BY MECHANICAL MEANS WHICH WERE NOT INCLUDED IN THE G&H PIPING STRESS ANALYSIS. BASED ON THE MAGNITUDE OF THE STRESSES OBTAINED IN THE TRT CALCULATIONS, THE TRT FINDS THAT TUEC SHOULD PERFORM MORE DETAILED ANALYSES TO DEMONSTRATE THE STRUCTURAL INTEGRITY OF THE INSTALLED NONCONFORMING PIPE, ESPECIALLY IN THE VICINITY OF WELD FW 13-4A. THE TRT NOTES HOWEVER THAT STRESSES IN THE INSTALLED NONCONFORMING PIPE ARE SECONDARY STRESSES WHICH WILL BE APPLIED ONLY ONCE DURING THE LIFE OF THE PLANT AND THAT PLASTIC DEFORMATIONS ASSOCIATED WITH THESE STRESSES ARE LESS THAN THOSE PERMITTED IN OTHER PROCESSES ACCEPTABLE TO THE ASME CODE, e.g., DURING PIPE BENDING (PARAGRAPHS NB/MC/MD-4223 OF THE ASME CODE). FURTHERMORE, SINCE HYDROSTATIC AND PREOPERATIONAL TESTING OF THE CTS SYSTEM WERE COMPLETED SUCCESSFULLY, THE TRT FOUND THAT THE INSTALLED ALLEGED NONCONFORMING PIPE MAY BE ACCEPTABLE.

DURING ITS ASSESSMENT OF ALLEGATIONS AP-15 AND AP-16



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

THE TRT IDENTIFIED NONCOMPLIANCES WITH THE REQUIREMENT OF B&R PROCEDURE CP-QP-6.0, "CONTROL OF NONCONFORMING ITEMS" THAT THE DISPOSITION OF NCR# BE EVALUATED FOR ADEQUACY. THESE NONCONFORMANCES WERE ASSOCIATED WITH ERRORS IN LOGIC AND INVALID REFERENCES IN THE DISPOSITION OF NCR# 40155 REV. 5 AND 49425. A NONCOMPLIANCE WITH THE INTENT OF B&R PROCEDURE CP-QP-6.0 WAS ALSO IDENTIFIED IN THE USE OF INSPECTION RESULTS TO VERIFY THAT THE NONCONFORMING PIPE WAS NOT NONCONFORMING. A WEAKNESS IN B&R PROCEDURE CP-CFM-6.9E IN NOT PERMITTING THE USE OF MECHANICAL MEANS TO ACHIEVE FITUP IN THE FABRICATION OF FIELD WELDS WAS ALSO IDENTIFIED BY THE TRT.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.015 SSER: 10 ALLEG: AP-06 ITEM: 10.015	AP-06 A CROWBAR THAT WAS DROPPED INTO A PIPE IN THE REACTOR CORE 2 YEARS AGO HAS NOT BEEN RETRIEVED. REF PG N-127	TRT --- TRT FOUND THAT A CROWBAR HAD FALLEN INTO A NEUTRON DETECTOR INSTRUMENTATION WELL, EXTERNAL TO THE REACTOR VESSEL, (NOT INTO THE REACTOR CORE, WHICH IS INTERNAL TO THE VESSEL) AS ALLEGED, BUT WAS SUBSEQUENTLY RETRIEVED DURING FLUSH 'G'. TRT FOUND THAT THE ACCUMULATION OF THE CROWBAR AND OTHER DEBRIS IN THE REACTOR CAVITY WAS IN NONCOMPLIANCE WITH HOUSEKEEPING REQUIREMENTS IN TU ELECTRIC PROCEDURE CP-QP-10.5. ALTHOUGH TRT NOTED THAT THE ACCUMULATION OF DEBRIS IN THE REACTOR CAVITY WAS IN NON-COMPLIANCE WITH PROCEDURE CP-QP-10.5.	ISAP(a) VII.A.7

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

\*\* 10 10.017  
SSER: 10  
ALLEG: AB-12  
ITEM: 10.017

AB-12  
SOME BOLTS HOLDING THE UPPER  
STEAM GENERATOR (SG) LATERAL  
SUPPORTS TO THE WALL PLATES WERE  
CUT THEREFORE, THEY WERE  
INCAPABLE OF SECURING THE SG  
LATERAL SUPPORTS TO THE  
EMBEDMENT PLATES IN ACCORDANCE  
WITH DESIGN REQUIREMENTS. REF.  
PG N-149

TRT

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TU ELECTRIC PURCHASED 144 BOLTS WHICH WERE 1 1/2  
INCHES LONGER THAN THE 7 1/2 INCHES NEEDED TO MEET THE  
INSTALLATION REQUIREMENTS FOR STEAM GENERATOR  
SUPPORTS. THE BOLTS WERE THEN CUT TO 7 1/2 INCHES AS  
AUTHORIZED BY WORK PACKAGE. TRT VERIFIED THROUGH FIELD  
INSPECTIONS THAT PERMANENT MARKINGS WERE ON THE BOLT  
HEADS PROVIDING MATERIAL TRACEABILITY. THE ALLEGATION  
THAT THE BOLTS HAD BEEN CUT WAS SUBSTANTIATED, BUT THE  
CUTTING HAD BEEN AUTHORIZED AND MATERIAL TRACEABILITY  
HAD BEEN MAINTAINED.

TU ELECTRIC WAS UNABLE TO PROVIDE TRT WITH AN  
INSPECTION RECORD OR TRAVELER PACKAGE DOCUMENTING THE  
INSTALLATION OF THE BOLTS. ABSENCE OF THE INSPECTION  
RECORD RAISED A POTENTIAL SAFETY AND QA/QC CONCERN  
BECAUSE THE BOLTS RESTRAINED THE STEAM GENERATOR  
DURING A SEISMIC OR PIPE RUPTURE EVENT.

ACTIONS REQUIRED

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TU ELECTRIC SHALL, IF POSSIBLE, FIND THE ORIGINAL  
QA/QC INSPECTION AND INSTALLATION RECORDS FOR THE  
RESTRAINT IN QUESTION. IF THE RECORDS ARE NOT  
RETRIEVED, TU ELECTRIC SHALL PROVIDE EVIDENCE, SUCH AS  
ULTRASONIC MEASUREMENT RESULTS, TO VERIFY ACCEPTABLE  
BOLT LENGTH. SHOULD UNAUTHORIZED BOLT CUTTING BE  
VERIFIED, TU ELECTRIC SHALL:

1. REPLACE SHORTENED BOLTS WITH BOLTS OF PROPER  
LENGTH, OR PROVIDE ANALYSIS TO JUSTIFY THE ADEQUACY OF  
SHORTENED BOLTS AS INSTALLED, AND

2. PROVIDE JUSTIFICATION OR PROPOSE MEASURES TO  
ENSURE THAT NO SIMILAR CONCERN EXISTS FOR BOLTING.

ISAP VI B  
PSR: CIVIL  
STIR CPRT-S-014

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 20.017A SSER: 10 ALLEG: AQB-03 ITEM: 10 017A	AQB-03 SOME BOLTS WERE CUT BECAUSE THERE WAS CONCRETE IN THE BOLT HOLE THAT PREVENTED INSTALLING THE BOLT TO ITS FULL LENGTH. THIS CUTTING REMOVED THE HEAT NUMBERS FROM THE ENDS OF THE BOLTS. REF. PG M-149	SEE ITEM 10.017	ISAP(*) VII.C, APPENDIX 19; VII.C, APPENDIX 25; VII.C, APPENDIX 26; VII.C, APPENDIX 27; VII.C, APPENDIX 29; VII.C, APPENDIX 33; VII.B; V.B STIR CPRT S-001, CPRT S-014 CAR(*) 101 SDAR CP 87-50, CP 86-04, CP 85-03 PSR: CIVIL

COMANCHE PEAK STEAM ELECTRIC STATION (CPSEG)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

\*\* 10 10 019 SRT-08  
SSER: 10 NUTS ON THE SUPPORT BOLTS FOR  
ALLEG: SRT-08 THE VERTICAL RESIDUAL HEAT  
ITEM: 10 019 EXCHANGERS WERE LOOSE. REF. PG  
N-153.

MCR M 14-243 R/1, M 14-244 R/1

TRT  
---  
THE MRC SPECIAL REVIEW TEAM (SRT) REPORT ON COMANCHE  
PEAK STATED THAT A FEW NUTS WERE VERY LOOSE AND OTHER  
BOLTS HAD EXPOSED THREADS BETWEEN NUTS AND BEARING  
SURFACES ON THE VERTICAL RESIDUAL HEAT EXCHANGERS.  
ALSO, SUPPORT BOLTING AND WELDING RECORDS WERE NOT  
READILY RETRIEVABLE.

TRT REVIEWED RECORDS FOR THE SUPPORTS OF THE VERTICAL  
RESIDUAL HEAT EXCHANGERS AND FOUND THAT THOSE RECORDS  
LACKED PROPER DOCUMENTATION TO TRACE BOLT MATERIAL.  
THIS LACK OF PROPER DOCUMENTATION WAS DISCOVERED BY TU  
ELECTRIC DURING PREPARATIONS FOR THE ASPE N-5 CLOSEOUT  
AND WAS REPORTED BY NONCONFORMANCE REPORTS (NCR#).

TRT ALSO REVIEWED THE DOCUMENTATION AND INSTALLATION  
OF THE CONTAINMENT SPRAY HEAT EXCHANGER, WHICH WAS  
SIMILAR TO THE INSTALLATION OF THE VERTICAL RESIDUAL  
HEAT EXCHANGERS AND IN THE SAME AREA. TRT FOUND THE  
BOLT MATERIAL RECORDS FOR THE CONTAINMENT SPRAY HEAT  
EXCHANGER AND DETERMINED THAT SUPPORT BOLTS WERE NOT  
LOOSE.

TRT CONCLUDED THAT TU ELECTRIC HAD CORRECTLY ADDRESSED  
THE LACK OF MATERIAL TRACEABILITY DOCUMENTATION FOR  
SUPPORT BOLTS FOR THE VERTICAL RESIDUAL HEAT  
EXCHANGERS. WHEN THE NCR ON THE INADEQUATE  
DOCUMENTATION IS CLOSED, THERE WILL BE NO SAFETY  
SIGNIFICANCE RELATED TO THE ALLEGATION.

TUE/CPRT RESOLUTION DOCUMENTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10 021 SSER: 10 ALLEG: AQP-01 ITEM: 10 021	AQP-01 A PIPE PIECE NUMBER WAS CHANGED TO COVER UP UNAUTHORIZED WORK AND TO AVOID GENERATION OF NCR'S. REF. PG N-155.	TRT --- BASED ON A REVIEW AND ASSESSMENT OF NONCONFORMANCE REPORTS (NCR'S), TRT SUBSTANTIATED THIS ALLEGATION. FIT-UP INSPECTION OF PIECE 38 WAS RECORDED AS ACCEPTABLE AND THE WELD ACCEPTANCE AND MATERIAL TRACEABILITY WERE DOCUMENTED IN QA RECORDS.  TRT ALSO CONCLUDED THAT THERE IS A GENERIC IMPLICATION BECAUSE A NONCONFORMING ITEM (PIECE NO. 38/48) WAS INSTALLED AND NO INFORMATION IS AVAILABLE COVERING THE DISPOSITIONING OF THREE OTHER NONCONFORMING SPOOL PIECES CT-1-SB-017 ITT2 PIECE NUMBER 23, CT-1-SB-013 ITT1, PIECE NUMBER 33, AND CT-1-SB-004 ITT1, PIECE NUMBER 41, WHICH WERE IDENTIFIED ON NCR M-40155. THESE NONCONFORMING PIECES ALSO MAY HAVE BEEN INSTALLED WHILE IN A HOLD STATUS.	(FUTURE)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.026A-2AQW-01

SSER: 10 QC INSPECTORS LACKED SUFFICIENT  
ALLEG: AQW-01 WELDING BACKGROUND TO CONDUCT  
ITEM: 10.026A-2 ADEQUATE INSPECTIONS. REF. PG  
N-169

TRT  
---  
THIS ALLEGATION WILL BE DISCUSSED IN QA/QC CATEGORY 4.

(REFER TO ITEM 11 84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.026E SSER: 10 ALLEG: AQW-05 ITEM: 10.026E	10.026E AQW-05 VISUAL WELD INSPECTORS WERE INADEQUATELY TRAINED AND CERTIFIED. REF. PG. M-187.	TRT --- THE SUBJECT OF INSPECTOR QUALIFICATIONS WILL BE ADDRESSED IN QA/QC CATAGORY 4, TRAINING AND QUALIFICATIONS.	(REFER TO ITEM 11 84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.020 SSER: 10 ALLEG: AR-06 ITDM: 10.020	AR-06 THESE WERE FITUP GAP VIOLATIONS ON THREE RANGERS. REF. PG M-100.	TRT --- THE TRT RESPONSE COVERS AR-06, AM-50 AND AM-58. THE TRT REVIEWED RIV IR 50-445/03-07 AND DETERMINED THAT TUEC SUBMITTED A RESPONSE TO THE VIOLATION REPORTED IN IR 03-07 (AR-6). THE TRT VERIFIED TUEC'S REMORK AND ENGINEERING DESIGN RESPONSE TO THIS VIOLATION AND CONCLUDES THAT THE CONDITIONS WERE CORRECTED. IN ADDITION, THE TRT CONCLUDES THAT THE REDUCTION IN EFFECTIVE WELD LENGTH DUE TO THE FIT-UP GAP HAS NO SAFETY SIGNIFICANCE FROM A DESIGN AND ENGINEERING STANDPOINT. THE TRT ALSO REVIEWED THE DOCUMENTS SUBMITTED BY FSE TO ADDRESS THIS CONCERN AND CONCLUDES THAT THE RESULTS OF THE ENGINEERING RESPONSE ARE ACCEPTABLE. ACCORDINGLY, THE ALLEGATIONS AR-6, AM-50 (AND AR-13), AND AM-58 DO NOT HAVE SAFETY SIGNIFICANCE. THE TRT CONCLUDES, HOWEVER, THAT THE RESPONSE BY BAR MANAGEMENT TO AVOID FUTURE VIOLATIONS WAS NOT ACCEPTABLE. THE TRT CONCLUDES THAT IM-25, 408 PROVIDED THE NECESSARY RESPONSE FROM BAR MANAGEMENT CONCERNING THE REPORTING OF NON-COMFORMING ITEMS. HOWEVER, NO ATTEMPT WAS MADE TO (1) CHECK SIMILAR WORK PERFORMED BY THE WELDER, OR (2) DETERMINE WHETHER THE FIT-UP GAP ON HIGHLY SKEWED WELDS SHOULD BE RANDOMLY CHECKED.	ISAP V.A PSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS

THE TRT, IN APPENDIX F, SSER 11, CHARACTERIZED THIS  
ISSUE AS MAY INDICATE FREQUENT OCCURRENCES, BUT  
APPARENTLY CONFINED TO A SPECIFIC ITEM OR AREA.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.029A SSER: 10 ALLEG: AW-50 ITEM: 10.029A	AW-50 AN EXCESSIVE GAP WAS PRESENT WHEN SOME PIPE HANGERS AND WHIP RESTRAINTS WERE WELDED IN PLACE. REF. PG W-199.	SEE ITEM 10.028	ISAP(*) V.A PSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPS)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.0298 AW-58  
SSER: 10 DUPLICATE OF AW-50. R&F. PG SEE ITEM 10.029  
ALLEG: AW-58 N-199  
ITEM: 10.0298

ISAP(\*) V.A  
PSR: LARGE BORE PIPING AND PIPE SUPPORTS  
SMALL BORE PIPING AND PIPE SUPPORTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.030 SSER: 10 ALLEG: AQW-73 ITEM: 10 030	AQW-73 INSPECTION PROCEDURES DID NOT INCLUDE INSTRUCTIONS FOR EXAMINING SKEWED FILLET WELDS. REF PG N-100.	TRT --- IN THE REVIEW OF THIS ALLEGATION, TRT FOUND EVIDENCE THAT PROCEDURES WERE REVISED TO INCLUDE APPROPRIATE CRITERIA FOR SKEWED WELD INSPECTION, AND THAT A 100 PERCENT REINSPECTION PROGRAM FOR NON-ASME SKEWED FILLET WELDS WAS COMPLETED. A SAMPLING OF THOSE SUPPORTS IDENTIFIED BY TRT SHOWED THAT ALL INSPECTIONS WERE SATISFACTORY. ACCORDINGLY, THIS ALLEGATION HAS NO SAFETY SIGNIFICANCE FOR NON-ASME SUPPORTS.  ADDITIONALLY, TRT CONCLUDED THAT THE INSPECTION OF SKEWED FILLET WELDS BETWEEN TYPICAL STRUCTURAL MEMBERS FOR ASME SUPPORTS HAS ALSO SATISFACTORY. HOWEVER, FOR THOSE PIPE STANCHION TYPE CONNECTIONS THAT ARE TYPICALLY INSPECTED TO A PIPING PROCEDURE, BUT BY DEFINITION ARE A SUBSECTION OF WELD, TRT SUBSTANTIATED THE ALLEGATION. TRT FOUND NO EVIDENCE THAT WOULD PERMIT THE USE OF A PIPING INSPECTION PROCEDURE AS STATED BY BROWN & ROOT (BAR) IN THE INSPECTION OF COMPONENT SUPPORT SKEWED WELDS. BECAUSE THESE PIPE STANCHION TYPE FILLET WELDS WERE NOT INSPECTED AS SKEWED FILLET WELDS, AS DEFINED ON THE QC CHECKLIST (LINE ITEM 5B) OF PROCEDURE CP-QAP-12.1, THE COMMITMENT TO RECTIFY THE SKEWED WELD INSPECTION PROBLEM BY REINSPECTION WAS NOT COMPLETED. A REVIEW OF THE WELD DATA CARDS OF A RANDOM SAMPLING OF SUPPORTS INDICATED THAT THE WELDS HAD BEEN INSPECTED. HOWEVER, BAR COULD NOT PROVIDE ANY DOCUMENTATION TO INDICATE THE REVISED PROCEDURE FOR CORRECTLY INSPECTING SKEWED WELDS WAS USED. THIS ALLEGATION MAY HAVE SAFETY SIGNIFICANCE BECAUSE UNDERSIZED WELDS MAY EXIST. THIS IS AN OPEN ISSUE FOR WHICH TU ELECTRIC ACTION IS REQUIRED.  ACTIONS REQUIRED ----- TU ELECTRIC SHALL RESPOND TO ALLEGATION AQW-73 (PERTAINING TO ASME SUPPORTS FOR INSPECTION CRITERIA FOR SKEWED WELDS) BY CORRECTING PROCEDURE CP-QAP-12.1 AND QI-QAP-11.1-20 TO INCLUDE ALL SUBSECTION OF WELDS, INCLUDING STANCHION-TO-STANCHION WELDS AND	ISAP(a) V.A

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

STANCHION-TO-PAD WELDS.

TU ELECTRIC SHALL PROVIDE EVIDENCE TO VERIFY THAT  
PREVIOUS VCD/DRD INSPECTIONS OF THESE TYPES OF SKEWED  
WELDS WERE PERFORMED CORRECTLY AND INSPECTED TO THE  
APPROPRIATE CRITERIA.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.032 SSER: 10 ALLEG: AH-10 ITEM: 10.032	AH-10 BOLT HOLES IN HANGERS WERE ENLARGED WITH A TORCH. REF. PG M-209	TRT --- TRT COULD FIND NO SPECIFIC DETAILS FOR THE ALLEGATION. TRT REVIEWED NRC REGION IV INSPECTION REPORT (IR) 03-27 AND AGREED WITH THE INSPECTOR'S ASSESSMENT THAT CUTTING HOLES WITH A TORCH WAS NOT PROHIBITED. HOWEVER, NO PROCEDURES WERE FOUND TO ADDRESS TORCH CUTTING OF HOLES. NO EVIDENCE WAS FOUND OF TORCH CUTTING .  HOWEVER, TRT DID IDENTIFY TWO SUPPORTS THAT HAD OVERSIZED HOLES BY DRILLING ACCORDING TO CP-CIM-9.10 AND FOUR SUPPORTS THAT APPEARED QUESTIONABLE. THE RELATED CONCERN OF OVERSIZED BOLT HOLES BY DRILLING WAS SUBSTANTIATED.	PSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES);

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.035 SSER: 10 ALLEG: AP-27 ITEM: 10.035	AP-27 THE SEISMIC RESPONSE SPECTRA GENERATED WAS NOT REPRESENTATIVE OF THE COMANCHE PEAK PLANT AND AGREED POORLY WITH THE UNIFORM BUILDING CODE REF. PG N-231	TRT --- TRT AGREED WITH THE NRC REGION IV INSPECTOR'S CONCLUSIONS CONCERNING THE REVIEW OF EQUIVALENT PIPING ANALYSIS TECHNIQUES. HOWEVER, TRT CONCLUDED THAT TU ELECTRIC SHOULD HAVE ADVISED NRC IN THE FSAR OF THE EXCLUSION OF THE 1.5 FACTOR AS RECOMMENDED BY THE NRC STANDARD REVIEW PLAN. ADDITIONALLY, TU ELECTRIC SHOULD HAVE PROVIDED TECHNICAL EVIDENCE AS THE BASIS FOR THIS EXCLUSION. BECAUSE REDUCTION OF THE 1.5 FACTOR IS ALSO BEING EVALUATED BY TRT IN A RELATED CONCERN (CIVIL AND STRUCTURAL CATEGORY 70), A STATEMENT OF SAFETY SIGNIFICANCE WILL NOT BE MADE PENDING THE RESULTS OF THAT ASSESSMENT.	(FUTURE)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.036  
SSER: 10  
ALLC: SRT-03  
ITEM: 10.036

SRT-03  
THERE WERE CONCERNS ABOUT DESIGN  
CONSIDERATIONS FOR PIPING  
SYSTEMS FROM A SAFETY-RELATED TO  
A NONSAFETY-RELATED BUILDING.  
REF. PG. N-237.

TRT

---  
BECAUSE GIBBS AND HILL (G&H) HAD NOT ADDRESSED THE  
ORIGINAL SRT CONCERN REGARDING PIPING SYSTEM DESIGN,  
THE STATUS OF THIS ITEM REMAINED UNDETERMINED. TRT  
CONCLUDED THAT THIS CONCERN COULD HAVE SAFETY  
IMPLICATIONS. HOWEVER, UNTIL G&H COMPLETED THEIR  
REVIEW, A FINAL DETERMINATION OF THE SAFETY  
IMPLICATIONS COULD NOT BE MADE.

ACTION REQUIRED

-----  
TU ELECTRIC SHALL PROVIDE ANALYSIS AND DOCUMENTATION  
THAT THE PIPING SYSTEMS ROUTED BETWEEN SEISMIC  
CATEGORY I AND NON SEISMIC CATEGORY I BUILDINGS MEET  
THE STATED FSAR CRITERIA.

ISAP(\*) V.C

PSR: LARGE BORE PIPING AND PIPE SUPPORTS  
SMALL BORE PIPING AND PIPE SUPPORTS



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.037  
SSER: 10  
ALLEG: SRT-05  
ITEM: 10.037

SRT-05  
TRAINING FOR INSPECTORS ON THE  
MEASUREMENT OF STRUT AND SNUBBER  
ORIENTATION ANGLES WAS WEAK.  
REF. PG. N-241.

TRT

---

WITH REFERENCE TO THE CONFUSION AMONG QC INSPECTORS CONCERNING THE INSTALLATION TOLERANCE ON STRUT AND SNUBBER ORIENTATION, TRT REVIEWED TU ELECTRIC RESPONSE TO THE NRC SPECIAL REVIEW TEAM REPORT AND FOUND THAT THE COMMITTED RESPONSES HAD BEEN CARRIED OUT AND THAT THE ALLEGATION DID NOT HAVE SAFETY SIGNIFICANCE. HOWEVER, TRT WAS CONCERNED ABOUT POTENTIAL GENERIC IMPLICATIONS ON PREVIOUSLY INSPECTED STRUTS AND SNUBBERS. TRT REVIEWED DOCUMENTATION THAT SNUBBERS HAD BEEN INSPECTED FOR POTENTIAL BINDING DURING HOT FUNCTIONAL TESTING; HOWEVER, NO DOCUMENTATION COULD BE PRODUCED BY PIPE SUPPORT ENGINEERING (PSE) THAT STRUTS HAD BEEN SIMILARLY REINSPECTED. BOTH BROWN & ROOT (BAR) QA AND PSE ATTEMPTED TO PROVIDE INDIRECT ASSURANCE THAT, IN THEIR OPINION, BASED UPON OTHER INSPECTIONS AND DOCUMENTED PIPE POSITIONS, NO STRUTS WERE BINDING TO CAUSE A PROBLEM. HOWEVER, TRT DISAGREED WITH THEIR CONCLUSIONS.

ISAP(a) VII.B.3; VII.C, APPENDIX 25; VII.C, APPENDIX 26

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.038 SSER: 10 ALLEG: AQP-23 ITEM: 10.038	AQP-23 THE TUEC QA PROGRAM DID NOT APPLY TO CLASS 5 (NON-SEISMIC) HANGERS AND SUPPORTS. REF. PG N-251.	TRT --- NRC REGION IV INSPECTION REPORT (IR) 80-15, THAT COVERED REGION IV INSPECTIONS PERFORMED IN JUNE 1980, REPORTED THAT THERE WAS NO QUALITY ASSURANCE EFFORT BEING MADE BY TU ELECTRIC REGARDING CLASS 5 PIPE HANGERS AND SUPPORTS. TRT FOUND THAT TU ELECTRIC IN RESPONSE TO IR80-15, HAD IMPLEMENTED A QA PROGRAM FOR CLASS 5 PIPE HANGERS AND SUPPORTS.  NRC REGION IV IR84-32/84-11, DATED FEBRUARY 12, 1985 ISSUED A NOTICE OF VIOLATION TO TU ELECTRIC THAT CITED TU ELECTRIC'S FAILURE TO ESTABLISH AND IMPLEMENT A COMPREHENSIVE SYSTEM OF PLANNED AND PERIODIC AUDITS. TRT'S FINDING OF VIOLATIONS IN THE TU ELECTRIC QA AUDIT SYSTEM ARE CONSISTENT WITH IR84-32/84-11.	ISAP VII.A.4

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

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TUE/CPRT RESOLUTION DOCUMENTS  
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TRT ISSUE SUMMARY  
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ISSUE  
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ISSUE SOURCE  
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\*\* 10 10.040 AM-65  
SSER: 10 THE CIRCUMFERENTIAL BUTT WELDS  
ALLEG: AM-65 IN THE UNIT 1 AND 2 FUEL  
ITDM: 10.040 TRANSFER TUBES HAD INCOMPLETE  
PENETRATION. REF. PG. N-291.

ISAP(\*) VII.A.7

TRT

---  
IN THE VISUAL EXAMINATION OF FUEL TRANSFER TUBES FOR  
UNITS 1 AND 2, TRT FOUND NO CIRCUMFERENTIAL BUTT  
WELDS, AS ALLEGED. THE TUBES WERE FABRICATED AS  
REQUIRED BY WETTINGHOUSE DRAWING 1209E53, NOTE 7. THE  
ALLEGATION, THEREFORE, WAS NOT SUBSTANTIATED. IT  
MASTRIC'S OPINION THAT THE ALLEGER MAY ACTUALLY HAVE  
BEEN REFERRING TO ONE OR MORE OF THE WELDS BETWEEN THE  
PENETRATION SLEEVES AND THE EXPANSION JOINT  
ASSEMBLIES. THESE WERE ORIGINALLY BUTT WELDS THAT WERE  
REDESIGNED BECAUSE OF A DIAMETRICAL MISMATCH. TRT'S  
VISUAL EXAMINATION FOUND THE MODIFIED WELDS TO BE  
VISUALLY SOUND, AND TO HAVE A MUCH GREATER  
CROSS-SECTIONAL AREA THAN THE DESIGNED BELLOMS WELD  
REQUIREMENT IN THE SAME SEAL BARRIER BOUNDARY. TRT  
CONCLUDED THAT THIS ALLEGATION HAS NO SAFETY  
SIGNIFICANCE. HOWEVER, TRT OBSERVED MISCELLANEOUS  
DEBRIS IN AND AROUND THE EXPANSION JOINT ASSEMBLIES.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRY RESOLUTION DOCUMENTS

\*\* 10 10.048  
SSER: 10  
ALLEG: AB-07B  
ITEM: 10.048

AB-07B  
THE COMPONENT COOLING WATER  
SURGE TANK ANCHOR BOLTS WERE  
MISALIGNED WITH THE BASEPLATE  
HOLES, AND THE ANCHOR BOLTS WERE  
BENT TO FIT THE HOLES. REF. PG  
M-149.

TRT

---

STILL UNDER REVIEW. WILL BE REPORTED LATER BY TRT.

(FUTURE)

COPANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.053 SSER: 10 ALLEG: AB-13 ITEM: 10.053	AB-13 DURING INSTALLATION OF APPROXIMATELY 1000 HANGERS, SOME BOLT HOLES WERE DRILLED TOO LARGE, CAUSING AN EXCESSIVE BOLT-TO-BOLT HOLE GAP IN THE BASEPLATES.	TRT --- THIS ALLEGATION WILL BE ADDRESSED IN THE STAFF'S SUMMARY DISPOSITIONS ON THE WALSH/DOYLE ALLEGATIONS CONCERNING THE DESIGN OF PIPE SUPPORTS.	DSAP IX FSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.083 SSER: 10 ALLEG: AQW-18 ITEM: 10.093	AQW-18 EBASCO INSPECTORS DID NOT PROPERLY INSPECT WELDS. REF. PG W-187.	TRT --- TRT FOUND THAT EBASCO INSPECTION PERSONNEL WERE TRAINED AND CERTIFIED IN THE SAME MANNER AS TU ELECTRIC EMPLOYEES. THE SUBJECT OF TU ELECTRIC INSPECTOR TRAINING AND QUALIFICATION IS ADDRESSED IN QA/QC CATEGORY 4.	(REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10 093A SSER: 10 ALLEG: A04-19 ITEM: 10 093A	A04-19 THE BACKFIT INSPECTION PROGRAM WAS NOT COMPLETELY IMPLEMENTED. REF. PG. N-187.	TRT --- THE SUBJECT OF INSPECTOR QUALIFICATIONS WILL BE ADDRESSED IN QA/QC CATEGORY 4.	(REFER TO ITEM 1) 84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

TRT ISSUE SUMMARY

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 10 10 096  
SSER: 10  
ALLEG: AQM-22  
ITEM: 10 096

AQM-22  
AN NCR ON DEFECTIVE WELDS IN  
CRAI PIPE WHIP RESTRAINTS HAS  
NEVER ASSIGNED AN NCR NUMBER AND  
WAS NOT PROPERLY PROCESSED OR  
DISPOSITIONED. REF. PG. N-200.

TRT EVALUATION IS ON-GOING AND WILL BE INCLUDED IN A (FUTURE)  
FUTURE SSER.

TUE/CPRT RESOLUTION DOCUMENTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.096-A SSER: 10 ALLEG: AW-39 ITEM: 10.096-A	10.096-A AW-39 VENDOR WELDS WERE DEFECTIVE ON A CBI-SUPPLIED PIPE WHIP RESTRAINT IN THE UNIT 1 PRESSURE RELIEF TANK ROOM. REF. PG N-269	TRT EVALUATION IS ON-GOING AND WILL BE INCLUDED IN A FUTURE SSER.	(FUTURE)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRY ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRY ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.096-B AW-53 SSER: 10 ALLEG: AW-53 ITEM: 10.096-B	THERE WERE WELD DEFICIENCIES IN PIPE HANGERS. REF. PG N-289	TRY EVALUATION IS ON-GOING AND WILL BE INCLUDED IN A FUTURE SSER.	(FUTURE)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.096-C SSER: 10 ALLEG: AW-57 ITEM: 10.096-C	10.096-C AW-57 THERE WERE DEFECTIVE WELDS IN PIPE WHIP RESTRAINTS SUPPLIED BY MPS INDUSTRIES. REF. PG N-209	TRT EVALUATION IS ON-GOING AND WILL BE INCLUDED IN A FUTURE SSER.	(FUTURE)

CONRORE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSES# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 10 10.086-D AM-64 SSE# 10 ALLEG: AM-64 ITEM: 10.086-D	(THIS ALLEGATION DUPLICATES AM-57.) REF. PG N-260	TRT EVALUATION IS ON-GOING AND WILL BE INCLUDED IN A FUTURE SSER.	(FUTURE)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.116  
SSER: 10  
ALLEG: AQM-69  
ITEM: 10.116

AQM-69  
THERE WAS WIDESPREAD USE OF  
INADEQUATELY QUALIFIED  
MECHANICAL AND WELDING  
INSPECTORS. REF. PG N-187.

TRT

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THE ALLEGATION THAT EIGHT BROWN & ROOT (BAR) QC  
PERSONNEL MAY NOT HAVE HAD EITHER HIGH SCHOOL DIPLOMAS  
OR GED CERTIFICATES AND THEREFORE WERE NOT QUALIFIED  
TO BE INSPECTORS WILL BE ADDRESSED IN QA/QC CATEGORY  
A.

(REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 10 10.131  
SSER: 10  
ALLEG: SRT-04  
ITEM: 10.131

SRT-04  
THE ALLOWED TOLERANCES FOR STRUT  
AND SNUBBER ORIENTATION ANGLES  
WEREN'T CLEARLY STATED IN  
APPLICABLE INSPECTION  
PROCEDURES. REF. PG N-241

TRT

WITH REFERENCE TO THE CONFUSION AMONG QC INSPECTORS  
CONCERNING THE INSTALLATION TOLERANCE ON STRUT AND  
SNUBBER ORIENTATION, TRT REVIEWED TU ELECTRIC'S  
RESPONSE TO THE NRC SPECIAL REVIEW TEAM REPORT AND  
FOUND THAT THE COMPLETED RESPONSES HAD BEEN CARRIED  
OUT AND THAT THE ALLEGATION DID NOT HAVE SAFETY  
SIGNIFICANCE. HOWEVER, TRT WAS CONCERNED ABOUT  
POTENTIAL GENERIC IMPLICATIONS ON PREVIOUSLY INSPECTED  
STRUTS AND SNUBBERS. TRT REVIEWED DOCUMENTATION THAT  
SNUBBERS HAD BEEN INSPECTED FOR POTENTIAL BINDING  
DURING HOT FUNCTIONAL TESTING; HOWEVER, NO  
ENGINEERING (PSE) THAT STRUTS HAD BEEN SIMILARLY  
REINSPECTED. BOTH BROWN & ROOT (BAR) QA AND PSE  
ATTEMPTED TO PROVIDE INDIRECT ASSURANCE THAT, IN THEIR  
OPINION, BASED UPON OTHER INSPECTIONS AND DOCUMENTED  
PIPE POSITIONS, NO STRUTS WERE BINDING TO CAUSE A  
PROBLEM. HOWEVER, TRT DISAGREED WITH THEIR  
CONCLUSIONS.

ISAP(\*) VII.C, APPENDIX 26, APPENDIX 27; VII.B.3  
FSR: LARGE BORE PIPING AND PIPE SUPPORTS  
SMALL BORE PIPING AND PIPE SUPPORTS  
(REFER TO ITEM 11.84F FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

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TUE/CPWT RESOLUTION DOCUMENTS  
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TRT ISSUE SUMMARY  
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ISSUE  
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ISSUE SOURCE  
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\*\* 11 11.02  
SSER: 11  
ALLEG: AQ-003  
ITEM: 11.02

AQ-003  
DOCUMENTATION SYSTEM WAS TOTALLY  
OUT OF CONTROL. REF. PG. 0-45.

TRT

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THE TRT FOUND THAT THE PORTION OF THE ALLEGATION  
CONCERNING CONTROL OF PROCEDURES AND INSTRUCTION WAS  
NOT SUBSTANTIATED. SINCE JULY 1984, THE PROGRAM FOR  
CONTROLLING DESIGN DOCUMENTS, THOUGH CUMBERSOME, IS  
EFFECTIVE. PROBLEMS WHICH MAY HAVE EXISTED PRIOR TO  
JULY 1984 ARE COVERED IN AQ-50. DEFICIENCIES PRIOR TO  
JULY 1984 HAD THE POTENTIAL FOR CONTRIBUTING TO  
PROBLEMS IN CONSTRUCTION, INSTALLATION AND INSPECTION.

ISAP(s) VII.A.3, PG 9, 11; III.D; VII.C. RESULTS REPORT  
COLLECTIVE EVALUATION REPORT: PART IV SEC. 3.6



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERa 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.08 SSER: 11 ALLEG: AQ-102 ITEM: 11.08	AQ-102 A DOCUMENT CONTROL CENTER SATELLITE SUPERVISOR'S ACTION RESULTED IN PROCEDURAL VIOLATIONS THAT WERE NOT REPORTED TO TUEC QUALITY ASSURANCE REPRESENTATIVES FOR REVIEW AND CONSIDERATION OF A REPORTABLE DEFICIENCY PURSUANT TO 10 CFR 50.55(E). REF. PG. 0-65.	TRT --- THE CONCERN THAT THE DCC SATELLITE SUPERVISOR TOOK ACTIONS WHICH RESULTED IN PROCEDURAL VIOLATIONS WAS SUBSTANTIATED. THE CONCERN THAT TU ELECTRIC DCC PROCEDURAL VIOLATIONS WERE NOT REPORTED TO TU ELECTRIC FOR POTENTIAL REPORTABILITY UNDER 10 CFR 50.55(E) WAS NOT SUBSTANTIATED. IN THE COURSE OF ASSESSING THIS ALLEGATION, TRT DETERMINED THAT TU ELECTRIC'S DEFINITION OF REPORTABLE DEFICIENCIES IS TOO VAGUE. TU ELECTRIC'S MCR PROCEDURE LACKED REFERENCES AND DID NOT ADDRESS CORRELATION OF MCRS TO REPORTABILITY UNDER 10 CFR 50.55(E). THE SIGNIFICANT DEFICIENCY PROCEDURE LACKED SPECIFICITY AS TO WHAT IS A SIGNIFICANT BREAKDOWN IN ANY PORTION OF THE QA PROGRAM OR THE MECHANISM FOR REVIEW OF MCRS FOR POTENTIAL REPORTABILITY. THIS CONCERN HAS GENERIC IMPLICATIONS IN THAT SIGNIFICANT QUALITY PROGRAM DEFICIENCIES COULD GO UNREPORTED TO THE NRC.	ISAP(a) VII.A.2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.13A SSER: 11 ALLEG: AQ-023 ITEM: 11.13A	AQ-023 QUALITY CONTROL INSPECTION TRAINING WAS DEFICIENT. REF. PG. 0-107.	TRT --- BASED ON A TRT REVIEW OF ALLEGATIONS CONCERNING INSPECTOR QUALIFICATIONS, CERTIFICATION, AND TRAINING IN GENERAL, TRT CONCLUDED THAT THE TRAINING AND CERTIFICATION PROGRAM AS WRITTEN FOR THE ASME INSPECTION PERSONNEL WAS ADEQUATE WITH THE EXCEPTIONS ALREADY NOTED. HOWEVER, IN ACTUAL PRACTICE, THIS PROGRAM WAS NOT FOLLOWED SCRUPULOUSLY.  IN THE NON-ASME TRAINING AND CERTIFICATION PROGRAM, TRT FOUND A LACK OF PROGRAMMATIC CONTROLS TO ENSURE THAT THE PROGRAM ACHIEVED AND MAINTAINED REQUIREMENTS AS SET FORTH IN 10 CFR PART 50, APPENDIX B. PROBLEM AREAS WERE: (1) IN THE DOCUMENTATION FOR QUALIFICATION, INCLUDING VERIFICATION OF EDUCATION AND EXPERIENCE, (2) IN THE TRAINING AND CERTIFICATION PROGRAM, (3) IN RECERTIFICATION PROGRAM, AND (4) IN THE CERTIFICATION TESTING PROGRAM. TRT CONCLUDED THAT THESE DEFICIENCIES IN PROCEDURAL REQUIREMENTS AND GUIDELINES IN THE TRAINING AND CERTIFICATION PROGRAMS WERE OF MAJOR CONCERN.  TRT DOES NOT INFER FROM THE ABOVE THAT ALL TU ELECTRIC AND BROWN & ROOT INSPECTORS ARE UNQUALIFIED. HOWEVER, IDENTIFIED INSPECTION DEFICIENCIES (AS ENUMERATED IN THE TRT'S ELECTRICAL AND CIVIL AND STRUCTURAL SSERs) OR LACK OF INSPECTION THEREOF, INDICATE A ROOT PROBLEM WITH INSPECTION QUALIFICATION THAT IS DIRECTLY TRACEABLE TO TU ELECTRIC'S AND BROWN & ROOT'S LACK OF PROGRAMMATIC CONTROLS AND USE OF MINIMUM REQUIREMENTS FOR THE INSPECTION CERTIFICATION PROGRAM.	ISAP(s) I.D.1; I.D.2. (REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11 13C SSER: 11 ALLEG: AQ-026 ITEM: 11 13C	AQ-026 DUE TO INADEQUATE TRAINING, QUALITY CONTROL INSPECTORS WERE NOT QUALIFIED. REF. PG. 0-107.	TRT --- BASED ON A TRT REVIEW OF ALLEGATIONS CONCERNING INSPECTOR QUALIFICATION, CERTIFICATION, AND TRAINING IN GENERAL, TRT CONCLUDED THAT THE TRAINING AND CERTIFICATION PROGRAM AS WRITTEN FOR ASME INSPECTION PERSONNEL WAS ADEQUATE WITH EXCEPTIONS. THESE EXCEPTIONS PRIMARILY INVOLVED (1) WEAKNESSES IN BROWN & ROOT PROCEDURES IN THE AREAS OF THE TYPE OF MONITORING TO BE USED FOR CERTIFICATION TESTING AND OF PERIODICALLY ESTABLISHING NEW TESTS AND (2) BROWN & ROOT AND TU ELECTRIC'S INTERPRETATION OF GUIDELINES FOR EDUCATION AND EXPERIENCE REQUIREMENTS FOR EACH INSPECTOR LEVEL. HOWEVER, IN ACTUAL PRACTICE, THIS PROGRAM WAS NOT FOLLOWED SCRUPULOUSLY.  IN THE NON-ASME TRAINING AND CERTIFICATION PROGRAM, TRT FOUND A LACK OF PROGRAMMATIC CONTROLS TO ENSURE THAT THE PROGRAM ACHIEVED AND MAINTAINED REQUIREMENTS AS SET FORTH IN 10 CFR PART 50, APPENDIX B. PROBLEM AREAS WERE IN: (1) THE DOCUMENTATION FOR QUALIFICATION, INCLUDING VERIFICATION OF EDUCATION AND EXPERIENCE, (2) IN THE TRAINING AND CERTIFICATION PROGRAM, (3) THE RECERTIFICATION PROGRAM, AND (4) THE CERTIFICATION TESTING PROGRAM. TRT CONCLUDED THAT THESE DEFICIENCIES IN PROCEDURAL REQUIREMENTS AND GUIDELINES IN THE TRAINING AND CERTIFICATION PROGRAMS ARE OF MAJOR CONCERN.	ISAP(a) I.D.1; I.D.2 (REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 11 11.13E AQ-028  
SSER: 11  
ALLEG: AQ-028  
ITEM: 11.13E

TRAINING RECORDS INCORRECTLY  
STATED THE TRAINING RECEIVED BY  
INDIVIDUAL QC INSPECTORS. REF.  
PG. 9-107.

TRT  
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BASED ON A TRT REVIEW OF ALLEGATIONS CONCERNING  
INSPECTOR QUALIFICATIONS, CERTIFICATION, AND TRAINING  
PROGRAM AS WRITTEN FOR THE ASME INSPECTION PERSONNEL  
HAS ADEQUATE WITH SOME EXCEPTIONS. HOWEVER, IN ACTUAL  
PRACTICE, THIS PROGRAM WAS NOT FOLLOWED SCRUPULOUSLY.  
IN THE NON-ASME TRAINING AND CERTIFICATION PROGRAM,  
TRT FOUND A LACK OF PROGRAMMATIC CONTROLS TO ENSURE  
THAT THE PROGRAM ACHIEVED AND MAINTAINED REQUIREMENTS  
AS SET FORTH IN 10 CFR PART 50, APPENDIX B. PROBLEMS  
AREAS WERE IN: (1) THE DOCUMENTATION FOR  
QUALIFICATION, INCLUDING VERIFICATION OF EDUCATION AND  
EXPERIENCE, (2) THE TRAINING AND CERTIFICATION  
PROGRAM, (3) THE RECERTIFICATION PROGRAM, AND (4) THE  
CERTIFICATION TESTING PROGRAM. TRT CONCLUDED THAT  
THESE DEFICIENCIES IN PROCEDURAL REQUIREMENTS AND  
GUIDELINES IN THE TRAINING AND CERTIFICATION PROGRAMS  
WERE OF MAJOR CONCERN.

TRT DOES NOT INFER FROM THE ABOVE THAT ALL 70 ELECTRIC  
AND BROWN & ROOT INSPECTORS ARE UNQUALIFIED. HOWEVER,  
IDENTIFIED INSPECTION DEFICIENCIES (AS ENUMERATED IN  
THE TRT'S ELECTRICAL AND CIVIL AND STRUCTURAL SSER#)  
OR LACK OF INSPECTION THEREOF, INDICATE A ROOT PROBLEM  
WITH INSPECTION QUALIFICATION THAT IS DIRECTLY  
TRACEABLE TO ELECTRIC'S AND BROWN & ROOT'S LACK OF  
PROGRAMMATIC CONTROLS AND USE OF MIRTHAM REQUIREMENTS  
FOR THE INSPECTION CERTIFICATION PROGRAM.

ISAP(\*) I.D.1: I.D.2  
(REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.13F SSER: 11 ALLEG: AQ-108 ITEM 11.13F	AQ-108 THE QUALITY CONTROL INSPECTORS INITIALLY ASSIGNED TO INSPECTING SOME 2500 CLASS 5 SUPPORTS WERE INADEQUATELY TRAINED AND SUPERVISED. REF. PG. 0-107.	TRT --- TRT REVIEWED THE ALLEGATION THAT SPECIFICALLY QUESTIONED THE QUALIFICATIONS OF PERSONNEL INSPECTING SOME 2500 CLASS 5 SUPPORTS. TRT REVIEWED THE QUALIFICATIONS FOR 19 INSPECTORS INVOLVED WITH THIS ACTIVITY AND CONCLUDED THAT ONLY 1 INSPECTOR HAD QUESTIONABLE QUALIFICATIONS. THE STAFF POSITION IS THAT, ALTHOUGH A SMALL PERCENTAGE OF THE INSPECTORS WERE NOT QUALIFIED, THE QUALITY OF SOME OF THE HARDWARE MAY BE SUSPECT, THEREFORE, THE ALLEGATION HAS SUBSTANCE.	(REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

THE TRI CONCLUSIVE

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DOCUMENT CHITSON, CIE  
LITTLE TRAINING AND  
TO PROGRESS TRAVELERS  
TYPES OF OCCUPENT PA  
THE JOB. REF EG. 0

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THE TRI CONCLUSIVE  
SUBSTANTIATED  
OF FEDERAL T. J. H. ...  
PRICE TO THE ...

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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE ----- ISSUE ----- TRT ISSUE SUMMARY ----- TUE/CPRT RESOLUTION DOCUMENTS -----

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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CFRT RESOLUTION DOCUMENTS
** 11 11.16A SSER: 11 ALLEG: AQ-052 ITEM: 11.16A	AQ-052 SITE PERSONNEL INTERCHANGED PARTS OF UNIDENTIFIED DIAPHRAGM VALVES DURING SITE DISASSEMBLY AND REASSEMBLY OPERATIONS. PART TRACEABILITY TO THE VALVES WAS LOST & THE OPERABILITY OF THE VALVES MAY BE AFFECTED. REF. PG. 0-117	TRT --- TRT CONCLUDED THAT THE ALLEGATION CONCERNING INTERCHANGED VALVE PARTS WAS SUBSTANTIATED. TRT ALSO CONCLUDED THAT THIS CONDITION HAD POTENTIAL QUALITY SIGNIFICANCE DUE TO THE GENERIC IMPLICATIONS. THE GENERIC IMPLICATIONS WERE BASED ON DOCUMENTED EVIDENCE THAT THE INTERCHANGE OF VALVE PARTS HAD OCCURRED AND EFFECTIVE PROGRAMMATIC CORRECTIVE ACTION HAD NOT BEEN IMPLEMENTED TO IDENTIFY THE PROBLEM AND PREVENT THE LOSS, DAMAGE AND INTERCHANGE OF VALVE PARTS.	ISAP(a) VII.B.2



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TRT ISSUE SUMMARY  
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TUE/CPRT RESOLUTION DOCUMENTS

ISSUE SOURCE  
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ISSUE  
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\*\* 11 11.198 AQ-061  
SSER 11 SUPERVISORS TOLD WELDERS TO  
ALLEG AQ-061 WELD-UP A "GOUGED" HOLE RATHER  
ITEM: 11.198 THAN WAIT FOR THE AUTHORIZATION  
THAT FOLLOWS THE ENGINEERING  
DISPOSITION OF A DISCREPANT  
CONDITION. REF. PG 0-131.

(FUTURE)

TRT  
---  
THE ALLEGATION CONCERNING A "GOUGED" HOLE IS ADDRESSED  
IN MECHANICAL AND PIPING CATEGORY 1, ALLEGATIONS AM-38  
AND AQ-24. IN THIS ASSESSMENT, THE WRC TECHNICAL  
REVIEW TEAM (TRT) EXAMINED THE PROGRAMMATIC CONTROLS  
USE TO ADDRESS WELD REPAIRS OF THIS TYPE.

BASED ON A REVIEW OF THE APPLICABLE REQUIREMENTS  
GOVERNING WELD REPAIR AND ON INTERVIEWS WITH WELDERS,  
THE TRT CONCLUDES THAT THIS ALLEGATION IS NOT  
SUBSTANTIATED.

THE ALLEGATION THAT SUPERVISORS TOLD WELDERS TO  
PERFORM UNAUTHORIZED REPAIR IS NOT ADDRESSED IN THIS  
ASSESSMENT AND WILL BE AN OPEN ITEM TO BE FOLLOWED UP  
BY THE WRC STAFF.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SERIES 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 11 11.22A-1 AQ-138  
SERIES: 11 CRAFT PERSONNEL WERE ASKED TO  
ALLEG. AQ-138 PERFORM WORK W/O PROPER  
ITEM: 11.22A-1 PAPERWORK. TWELVE CONCERNS WERE  
INCLUDED IN THIS ALLEGATION.  
REF. PG. 0-143 THRU PG. 0-152.

TRT

---  
IN ASSESSING THE TWELVE CONCERNS ENCOMPASSED BY  
ALLEGATION AQ-138, THE TRT REVIEWED PROCEDURES AND  
DOCUMENTATION, AUDITED FABRICATION WORK IN PROCESS,  
WITNESSED THE FABRICATION AND FT EXAMINATION OF A  
COMPARISON SAMPLE, WITNESSED THE FABRICATION OF  
THREADED RODS, AND CONDUCTED A WALKDOWN VERIFICATION  
OF THE MATERIAL LAYDOWN STORAGE AREAS. THE ASSESSMENT  
ALSO INCLUDED INTERVIEWS WITH BAR SNOP FOREMEN AND  
CRAFT PERSONNEL, QC INSPECTORS, QUALITY ENGINEERS,  
MATERIAL CONTROL PERSONNEL, AND A TU ELECTRIC  
INSTRUMENTATION ENGINEER. THE TRT'S ASSESSMENT  
DETERMINED THAT SIX OF THE TWELVE CONCERNS WERE NOT  
SUBSTANTIATED AND ANOTHER FIVE CONCERNS COULD BE  
NEITHER SUBSTANTIATED NOR REFUTED. THE TRT FOUND  
PROCEDURAL NONCOMPLIANCES, HOWEVER THE DOCUMENTATION  
EXAMINED BY THE TRT IN THE INOM FABRICATION SHOP  
INDICATED THAT THE REQUIRED QC INSPECTIONS WERE  
PERFORMED AND MATERIAL USABILITY WAS MAINTAINED AND  
DOCUMENTED. THE TRT CONCLUDES THAT THE PROCEDURAL  
VIOLATIONS HAVE QUALITY SIGNIFICANCE AND GENERIC  
IMPLICATIONS.

15AP(\*) VII.B.1  
TUE AUDIT REPORT ATP-87-516  
(REFER TO ITEM 11.848 FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11 22A-3 SSER: 11 ALLEG: AQ-138 ITEM: 11 22A-3	11 22A-3 AQ-138 NON-SAFETY RELATED MATERIAL WAS MIXED WITH SAFETY RELATED MATERIAL. REF. PG. 0-143.	TRT --- TRT'S ASSESSMENT FOUND THE CONCERN THAT SAFETY AND NON-SAFETY MATERIALS WERE MIXED WAS NOT SUBSTANTIATED.  IN FURTHER ASSESSMENT OF THIS ALLEGATION, TRT FOUND A PILE OF SCRAP MATERIAL, WHICH ALTHOUGH IT WAS SEPARATED FROM OTHER MATERIAL, WAS NOT IDENTIFIED AS SCRAP MATERIAL, NOR WAS THE AREA IN WHICH IT WAS FOUND IDENTIFIED AS A SCRAP/SALVAGE AREA. TRT ALSO FOUND THAT UNIDENTIFIED NUK MATERIALS WERE MINGLED WITH SAFETY AND NONSAFETY MATERIAL IN THE LAYDOWN YARD ADJACENT TO THE FORMER ELECTRICAL HANGER SHOP. THIS CONDITION WAS IN NONCOMPLIANCE WITH PROCEDURE CP-CPM-8.1, SECTIONS 3.3 AND 3.5 WHICH STATES:  3.3 WITHIN EACH OF THE STORAGE AREAS (TYPE A THROUGH E AS DELINEATED IN APPENDIX 1) SAFETY-RELATED ITEMS SHOULD BE PHYSICALLY SEPARATED FROM NONSAFETY-RELATED ITEMS AND IDENTIFIED. WHERE SEGREGATION IS NOT PRACTICAL, DUE TO SIZE, CONFIGURATION, OR SPECIFIC STORAGE REQUIREMENTS, ETC., POSITIVE IDENTIFICATION SHALL BE MAINTAINED WHICH CLEARLY IDENTIFIES THE MATERIAL.  3.5 ITEMS WHICH HAVE BEEN WITHDRAWN FROM THE WAREHOUSE AND ARE NOT NEEDED SHALL BE TRANSMITTED TO THE WAREHOUSE BY THE "MATERIAL RETURN TO WAREHOUSE" FORM (ATTACHMENT 3).  IN ADDITION, TRT NOTED THAT PROCEDURE QI-QP-11.14-1, "INSPECTION OF SITE FABRICATION AND INSTALLATION OF STRUCTURAL/MISCELLANEOUS STEEL," SECTION 3.1, REQUIRES THAT THE QC INSPECTOR SHALL PERFORM RANDOM SURVEILLANCE OVER STORAGE AND CONTROL OF MATERIALS IN THE STRUCTURAL/MISCELLANEOUS STEEL SHOP AREA TO ASSURE PROPER STORAGE AND CONTROL OF MATERIALS IN ACCORDANCE WITH REFERENCE 1-C AND AS FOLLOWS. SAFETY-RELATED MATERIAL FOR ITEMS REQUIRING TRACEABILITY THROUGH INSTALLATION SHALL BE SEGREGATED FROM OTHER MATERIALS AND SHALL BE IDENTIFIED BY HEAT NUMBER AT ALL TIMES." TRT FOUND NO EVIDENCE THAT THE REQUIRED RANDOM	ISAP(s) VII.B.1

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

SURVEILLANCES WERE PERFORMED, A CONDITION IN  
NONCOMPLIANCE WITH THE PROCEDURE QUOTED.

THE DOCUMENTATION EXAMINED BY TRT IN THE IRON  
FABRICATION SHOP INDICATED THAT THE REQUIRED QC  
INSPECTIONS WERE PERFORMED AND MATERIAL TRACEABILITY  
WAS MAINTAINED AND DOCUMENTED. TRT THEREFORE CONCLUDED  
THAT THE PROCEDURAL VIOLATIONS HAVE QUALITY  
SIGNIFICANCE AND GENERIC IMPLICATIONS.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSES# 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 11 11.23A  
SSES# 11  
ALLEG: AQ-054  
ITEM: 11.23A

AQ-054  
CLEANING PROCEDURES FOR AND  
CLEARLINESS OF COMPONENTS AND  
AREAS WERE NOT MAINTAINED DURING  
CONSTRUCTION OF THE PLANT. REF.  
PG 0-155.

TRT

---  
BASED ON ITS REVIEW OF RECORDS OF QC SURVEILLANCES FOR  
JANUARY AND FEBRUARY 1979, AND INSPECTION REPORTS FOR  
1981 AND 1982, TRT FINDS SOME MERIT IN THE ALLEGATION  
RELATING TO INADEQUATE CLEARLINESS CONTROLS DURING THE  
EARLY STAGES OF CONSTRUCTION. TRT CONCLUDES THAT THE  
CLEARLINESS CONTROLS IMPLEMENTED SINCE 1981 INDICATE  
THAT MANAGEMENT RECOGNIZED THE CLEARLINESS PROBLEM AND  
IMPLEMENTED PROCEDURES TO CORRECT IT.

ISAP(a) VII.A.7  
CAR 87-022

TRT NOTED, HOWEVER THAT FP-55-08 REQUIRED ONLY TWO  
SWIPE TEST OF THE RV (ONE ON THE SIDE ONE ON THE  
BOTTOM). ALTHOUGH THE PROCEDURE WAS STILL A DRAFT, TRT  
EXPRESSED ITS CONCERN IN REGARD TO THE ADEQUACY OF  
PERFORMING ONLY TWO SWIPE TESTS TO VERIFY CLEARLINESS  
OF AN ITEM THE SIZE OF THE REACTOR VESSEL.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11 24E SSER: 11 ALLEG: AQ-035 ITDM: 11 24E	AQ-035 A BAR QUALITY CNTRL MGR ISSUED ORAL & WRITTEN INSTR THAT STATED THAT IR'S WERE TO BE USED TO DOCUMENT DEFICIENCIES, RATHER THAN MCR'S, BECAUSE MCRS REQUIRED ENGR REVIEW & DISPOSITION FOR CLOSURE, WHEREAS IRS COULD BE CLOSED BY ANYONE. REF. PG 0-161.	TRT --- ALTHOUGH THE ALLEGATION WAS NOT SUBSTANTIATED, THE TRT REVIEW DID IDENTIFY SOME CONCERNS. THE GENERIC SIGNIFICANCE OF THESE CONCERNS IS DISCUSSED IN QA/QC CATEGORY 8, ALLEGATION AQ-135 WHICH STATES THE FOLLOWING: THE ALLEGATION OF INADEQUATE REVIEW OF IDENTIFIED DEFICIENCIES LED THE TRT TO DETERMINE A PROGRAMMATIC WEAKNESS INVOLVING THE LACK OF GUIDANCE ON THE LEVEL OF DEFICIENCY NEEDED TO INITIATE AN MCR. THIS FINDING HAS GENERIC IMPLICATIONS FOR TU ELECTRIC'S OTHER INSPECTION AND CORRECTIVE ACTION PROGRAMS FOR THE DESIGN AND CONSTRUCTION OF CPSSES. REVIEW OF THIS ALLEGATION ALSO LED THE TRT TO CONCLUDE THAT TU ELECTRIC'S PROGRAM FOR TRENDING NONCONFORMANCES WAS WEAK.	ISAP(*) VII.A.2 (REFER TO ITEM 11 03L FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11 24M SSER: 11 ALLEG: AQ-097 ITEM: 11 24M	AQ-097 BECAUSE THE DOCUMENTATION DID NOT MATCH THE LOG BOOK, PERMANENT DOCUMENTS WERE REMOVED FROM THE VAULTS AND NEW NCRs WERE WRITTEN RELEVANT TO OLD PROBLEMS. REF. PG. O-161.	TRT --- THE ALLEGATION WAS SUBSTANTIATED. HOWEVER, THE OCCURRENCES WERE CONDUCTED ACCORDING TO PROCEDURE, AND HAVE NO GENERIC IMPLICATIONS. THE INITIAL NCR PROCESS WAS DEFICIENT IN SOME AREAS; HOWEVER, A NUMBER OF AUDITS HAVE RESULTED IN REVISIONS TO CORRECT THOSE DEFICIENCIES. CURRENT PROCEDURES ARE GENERALLY ADEQUATE, WITH SOME WEAKNESSES AS NOTED IN AQ-34, AQ-36, AQ-97, AQ-114, AND AQ-124.  REVIEW OF THE BROWN ROOT LOG INDICATED THAT 50 NCRs, RELATED TO INCORRECT DOCUMENTATION, WERE ISSUED DURING AUGUST 1984. TRT ATTRIBUTED PART OF THIS INCREASE TO AN INCREASE IN THE AMOUNT OF DOCUMENTATION BEING TRANSMITTED TO THE RECORDS VAULT. THE ISSUANCE OF THAT MANY NCRs WOULD SEEM TO WARRANT THE PREPARATION OF A CAR; HOWEVER NO CAR WAS WRITTEN.  TRT NOTED OTHER INSTANCES IN WHICH SPECIFIC NONCONFORMANCES WERE CORRECTED, BUT PROGRAMMATIC CORRECTIVE ACTION WAS NOT TAKEN. TRT NOTED FROM THE CAR LOG THAT NO CARs WERE ISSUED BETWEEN JUNE 1, 1980, AND JANUARY 14, 1982, BUT THAT FOUR SEPARATE CARs (22, 27, 32, AND 43) WERE ISSUED RELATING TO HOLD POINT VIOLATIONS. THIS LACK OF ISSUANCE OF ANY CARs FOR 19 MONTHS, PLUS REPETITIVE ISSUANCE OF FOUR CARs FOR THE SAME SUBJECT, INDICATED TO THE TRT THAT THIS PORTION OF THE QA PROGRAM (AS DISTINGUISHED FROM QE AND QC) WAS NOT EFFECTIVE. INDEED, THE NCR FORM DID NOT IDENTIFY ANY REVIEW OF NCRs BY AN ELEMENT OF THE QA ORGANIZATION. THE QA REVIEW IDENTIFIED IN TU ELECTRIC PROCEDURE CP-QP-16.0, PARAGRAPH 3.2.6, WAS IN REALITY A QE REVIEW, AND THE ONLY REFERENCE TO QA REVIEW IN BROWN & ROOT PROCEDURE CP-QAP-16.1, WAS TO A MANAGERIAL REVIEW.  ALLEGATION AQ-97 WAS SUBSTANTIATED; HOWEVER, THE ALLEGED OCCURRENCES WERE CONDUCTED ACCORDING TO PROCEDURE. TRT NOTED A WEAKNESS IN THE CAR SYSTEM.	ISAP(*) VII.A.2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11 24Q SSER: 11 ALLEG: AQ-114 ITEM: 11 24Q	AQ-114 INSTEAD OF WRITING NCRs, B&R QC KEPT PERSONAL LOGS OF THE DEFICIENCIES THAT THEY DISCOVERED AND THEN OBTAINED THEIR DISPOSITION. REF. PG. O-161.	TRT --- THE TRT REVIEWED APPLICABLE PROCEDURES AND FOUND NO REFERENCE TO INSPECTORS KEEPING PERSONAL LOGS OF PROBLEMS. INTERVIEWS REVEALED THAT QC INSPECTORS KEPT LOGS OF ALL JOBS THEY INSPECTED DURING THE FIRST FEW YEARS OF THE CPSES PROJECT. SUCH LOGS WERE INDICATED TO BE NO LONGER MAINTAINED; SOME INSPECTORS DO MAINTAIN AN INFORMAL LOG OF JOBS WORKED IN CASE OF QUESTIONS BY SUPERVISION ABOUT THE AMOUNT OF WORK DONE. THE TRT DISCOVERED ONE PERSONAL QC LOG BOOK CONTAINING SOME ENTRIES THAT APPEARED TO BE SUBJECTS THAT SHOULD HAVE BEEN DOCUMENTED ON IR# OR WCR# BUT THE TRT COULD NOT LOCATE IRS OR WCR# RELATED TO THE ENTRIES. THE TRT WAS UNABLE TO LOCATE ADDITIONAL LOGS OF THIS NATURE. BASED ON THE LOGBOOK FOUND THE TRT CONSIDERS THE ALLEGATION SUBSTANTIATED.	ISAP(*) VII.A.2



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

<u>ISSUE SOURCE</u>	<u>ISSUE</u>	<u>TRT ISSUE SUMMARY</u>	<u>TUE/CPRT RESOLUTION DOCUMENTS</u>
** 11 11.24T SSER: 11 ALLEG: AQ-124 ITEM: 11.24T	AQ-124 SOME NONCONFORMANCE REPORTS (MCRS) WERE DISPOSITIONED INACCURATELY. REF. PG. O-161.	TRT --- DURING THE TRT'S INVESTIGATION OF THIS ALLEGATION THEY DID IDENTIFY SPECIFIC CASES OF IMPROPER DISPOSITIONING OF MCRs. ALLEGATION AQ-124 WAS THEREFORE, CONSIDERED TO BE SUBSTANTIATED.	ISAP VII.A.2 (REFER TO ITEM 11.04E FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

CORANICHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.25 SSER: 11 ALLEG: AQ-005 ITEM: 11.25	AQ-005 THERE WAS A LACK OF MATERIAL TRACEABILITY FOR SAFETY-RELATED MATERIALS AND COMPONENTS. REF. PG. O-175	TRT --- BASED ON ITS REVIEW, THE TRT CONCLUDES THAT THE ALLEGATION THAT TUEC FAILED TO MAINTAIN MATERIAL TRACEABILITY FOR SAFETY-RELATED MATERIAL FOR NUMEROUS HARDWARE COMPONENTS PRIOR TO OCTOBER 1981, WAS SUBSTANTIATED. TUEC DID HAVE PROCEDURES FOR MATERIAL TRACEABILITY, AS REQUIRED BY 10 CFR 50, APPENDIX B, CRITERION VIII, HOWEVER, TUEC DID NOT FOLLOW THESE PROCEDURES, RESULTING IN A PARTIAL BREAKDOWN IN THE QA PROGRAM. ALTHOUGH CORRECTIVE ACTIONS WERE TAKEN AND WERE DOCUMENTED (MCRS M-3033 AND M-3258) IN ACCORDANCE WITH TUEC QA PROCEDURE CP-QAP-8.5, TUEC FAILED TO REPORT THIS PARTIAL BREAKDOWN TO THE NRC PER 10 CFR 50.55(E) REQUIREMENTS.	ISAP(a) VII.A.1; VII A.2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.26 SSER: 11 ALLEG: AQ-038 ITEM: 11.26	AQ-038 QC INSPECTORS WERE HARASSED BY BEING TOLD TO IGNORE PROBLEMS. REF. PG. 0-195.	TRT --- TRT COULD NOT ADEQUATELY IDENTIFY THE CIRCUMSTANCES SURROUNDING THE PREPARATION AND LACK OF SUBMITTAL OF THE INITIAL MCR IN JANUARY 1982. HOWEVER, THE GENERATION OF THE ADDITIONAL MCRs CAUSED THE WELD DEFECTS TO RECEIVE SOME DEGREE OF EVALUATION AND DISPOSITION IN ACCORDANCE WITH THE MCR SYSTEM. BECAUSE OF THE LACK OF SPECIFIC INFORMATION PROVIDED BY TU ELECTRIC RELATED TO PAINT REMOVAL AND THE WELD REINSPECTION PROCESS, TRT COULD NEITHER CONFIRM NOR REFUTE THAT THE EVALUATION AND DISPOSITION WERE ADEQUATE. CONSEQUENTLY, ADDITIONAL EXPLANATION FOR THIS REINSPECTION PROCESS HAS BEEN REQUESTED FROM TU ELECTRIC.  THE DECISION REGARDING THE ALLEGATION OF INSPECTOR HARASSMENT IS DOCUMENTED IN BROWN & ROOT vs. DOWOVAN, 747 F.2D 1029 (5th CIR. 1984). VENDOR WELD DEFECTS INITIALLY NOTICED BY THE INSPECTOR, WHICH CAUSED QC MANAGEMENT TO WARN THE INSPECTOR TO STAY WITHIN THE SCOPE OF HIS RESPONSIBILITY AND WHICH MAY HAVE BEEN A CONTRIBUTING FACTOR IN TERMINATING HIS EMPLOYMENT, WERE SUBSEQUENTLY IDENTIFIED AND ULTIMATELY DISPOSITIONED IN ACCORDANCE WITH THE MCR SYSTEM. THEREFORE, THE ALLEGATION THAT INSPECTORS WERE TOLD TO IGNORE PROBLEMS WAS ESSENTIALLY SUBSTANTIATED. THE OPEN ISSUE REGARDING WELD REINSPECTION WILL BE EVALUATED AND DOCUMENTED IN A SUBSEQUENT SSER.	DR-C-87-4114

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SCENs 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 11 11.27A AQ-055  
SSER: 11 FUEL TRANSFER CANAL LINER  
ALLEG: AQ-055 DOCUMENTATION WAS FALSIFIED.  
ITEM: 11.27A REQUIRE: WELD RADIOGRAPHY WAS  
NOT COMPLETED. REF. PG. 0-100.

ISAP(\*) VII.A.0  
CAR 76X. 77X

TRT  
---  
THE ALLEGATION THAT REQUIRED RADIOGRAPHY WAS NOT COMPLETED IS NOT SUBSTANTIATED, SINCE THE TRT FOUND RECORDS SHOWING THE RESULTS OF RADIOGRAPHY OF THOSE WELDS FOR WHICH RADIOGR/PHY WAS REQUIRED. THE PRIMARY SUBJECT OF THIS ALLEGATION WAS THE FALSIFICATION OR IMPROPER SIGN-OFF OF RECORDS I.E., INSPECTION TRAVELERS. THE TRT COULD NOT CONCLUDE THAT THE IRREGULARITIES NOTED CONSTITUTED FALSIFICATION, PER SE. APPARENTLY, THESE IRREGULARITIES OCCURRED BECAUSE OF POOR PRACTICES AND INADEQUATE INSPECTION FORMS. SOME TRAVELERS ALSO APPEARED TO HAVE BEEN SIGNED OFF IMPROPERLY.

TRT CONCLUDED THAT THERE ARE RECORD ANOMALIES APPARENT IN THE LINER PLATE TRAVELERS WHICH ARE NOT ADEQUATELY EXPLAINED ON THE FACE OF THE TRAVELERS (\*S.S., DATES CHANGED), WHICH VIOLATE PROCEDURES (\*S.S., FAILURE TO TRANSFER SIGN-OFF FROM CBITS TO TRAVELERS DAILY), AND WHICH EMPLOY INADEQUATE PROCEDURES (I.E., CONFUSION OVER THE USE OF THE FIVE-LINE TRAVELER).

IT APPEARS TO THE TRT THAT THE QC DOCUMENTATION RELATING TO THE LINER PLATE WELDS DID NOT MEET THE STANDARDS EXPECTED OF AN EFFECTIVE QA/QC PROGRAM, OR THE STANDARDS REQUIRED BY GIBBS & HILL SPECIFICATION 2323-SS-10, AND 10 CFR 50 APPENDIX B.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

TRT ISSUE SUMMARY

TUZ/CPRT RESOLUTION DOCUMENTS

ISSUE

\*\* 11 11 278 AQ-078  
SSER: 11 BOLD POINTS FOR INSPECTION ON  
ALLEG: AQ-078 TRAVELERS FOR THE FUEL BUILDING  
ITEM: 11 278 WERE SIGNED OFF IMPROPERLY.  
REF. PG 0-199

ISAP(\*) VII.A.8  
CAR 76X, 77X

TRT  
---  
TU ELECTRIC REPRESENTATIVES INDICATED THAT IT WAS  
COMMON PRACTICE FOR THE MILLBRIGHT DEPARTMENT TO WRITE  
"DAY" AND, IN SOME INSTANCES, THE SCHEDULED DATE FOR  
INSPECTION OF THE COMPLETED WELD ON THE TRAVELER, WITH  
THE INTENTION OF OBTAINING THE INSPECTOR'S SIGNATURE  
WHEN THE WELD WAS COMPLETED AND INSPECTED. WELDING  
PRIORITIES APPARENTLY WERE THEN RESCHEDULED AND THE  
PRE-ENTERED DATES WERE CORRECTED WHEN THE TRAVELER WAS  
SIGNED.  
THE TRT CONCLUDES THAT THERE ARE RECORD ANOMALIES  
APPARENT IN THE LINER PLATE TRAVELERS WHICH ARE NOT  
ADEQUATELY EXPLAINED ON THE FACE OF THE TRAVELERS  
(E.G., DATES CHANGED), WHICH VIOLATE PROCEDURES (E.G.,  
FAILURE TO TRANSFER SIGN-OFF FROM CRITS TO TRAVELERS  
DAILY), AND WHICH EMPLOY INADEQUATE PROCEDURES (I.E.,  
CONFUSION OVER THE USE OF THE FIVE-LINE TRAVELER).  
IT APPEARS TO THE TRT THAT THE QC DOCUMENTATION  
RELATING TO THE LINER PLATE WELDS DID NOT MEET THE  
STANDARDS EXPECTED OF AN EFFECTIVE QA/QC PROGRAM, OR  
THE STANDARDS REQUIRED BY GIBBS & HILL SPECIFICATION  
2323-SS-13, AND 50 CFR 50 APPENDIX B.

CORANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

\*\* 11 11.288 AQ-126  
SSER: 11 BETWEEN DECEMBER 1983 AND  
ALLEG: AQ-126 FEBRUARY 1984, FORMER CRAFTSMEN  
ITEM: 11.288 AND INSPECTORS WERE PERFORMING A  
RECORD VERIFICATION OF DOCUMENT  
PACKAGES THAT CONTAINED RECORDS  
OF THEIR OWN WORK OR  
INSPECTIONS. REF. PG. 0-209.

SAFETEAH CONCERNS 11013G, 11014G  
TU/MEHD CQA-0816

TRT  
---  
BROWN & ROOT ACKNOWLEDGED THAT THERE WERE INSTANCES IN  
THE PAST WHERE THIS SITUATION HAD OCCURRED, BUT THEY  
COULD IDENTIFY NO SPECIFIC INSTANCE OF THIS PRACTICE.  
TRT INTERVIEWED THE AUTHORIZED NUCLEAR INSPECTORS  
(AMI) WHO STATED THAT WHEN THEY FOUND INSPECTORS  
VERIFYING THEIR OWN WORK AT UNIT 1, THEY RETURNED THE  
PACKAGES TO BAR FOR REVERIFICATION BY ANOTHER PERSON.  
TRT ATTEMPTED TO IDENTIFY INSTANCES OF THIS TYPE OF  
POTENTIAL CONFLICT OF INTEREST, BUT WAS UNABLE TO DO  
SO. TRT REVIEWED ALL 66 FIELD WELD DATA CARD PACKAGES  
TRANSMITTED BY THE N-5 GROUP TO THE PERMANENT PLANT  
RECORDS VAULT FROM NOVEMBER 1, 1983, TO MARCH 31,  
1984. TRT COULD IDENTIFY NO SPECIFIC INSTANCE WHERE  
THE DOCUMENT REVIEWER WAS THE SAME PERSON AS THE QC  
INSPECTOR, WELDER, OR WELD FILLER METAL ISSUER.

TRT ALSO SELECTED 92 PIPE HANGER RECORD PACKAGES, ONE  
FROM EACH N-5 GROUP, TRANSMITTED TO THE PERMANENT  
PLANT RECORDS VAULT FROM DECEMBER 1, 1983, TO FEBRUARY  
29, 1984. EACH PACKAGE CONTAINED ONE TO SIX WELD DATA  
CARDS (THE AVERAGE WAS THREE). TRT COULD FIND NO  
INSTANCE WHERE THE DOCUMENT REVIEWER WAS THE SAME  
INDIVIDUAL AS THE CRAFT PERSON OR THE QC INSPECTOR.

BASED ON INTERVIEWS WITH AMI'S AND WITH BAR  
MANAGEMENT, WHO WERE DIRECTLY RESPONSIBLE FOR CREATING  
THE RECORD REVIEW GROUP, THE TRT SUBSTANTIATED THE  
ALLEGATION OF THE POTENTIAL FOR INSPECTORS REVIEWING  
RECORDS OF THEIR OWN WORK, ALTHOUGH SPECIFIC EXAMPLES  
WERE NOT FOUND. THE SITUATION WAS CREATED BY BAR QA  
MANAGEMENT'S INTERPRETATION THAT 10 CFR PART 50,  
APPENDIX B, CRITERION X WAS NOT VIOLATED. THE TRT  
QUESTIONS THE EFFECTIVENESS OF A QA PROGRAM WHEN  
INSPECTORS ARE PLACED IN COMPROMISING POSITIONS IN  
WHICH FALSIFICATION OF RECORDS COULD OCCUR.

COPANACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TRT/CPRT RESOLUTION DOCUMENTS
** 11 11.30A SSER: 11 ALLEG: AQ-069 ITDM: 11.30A	AQ-069 THERE WAS A LACK OF JOB COORDINATION AS EVIDENCED BY SLODDY WORKMANSHIP, POOR SUPERVISION, WASTE OF MATERIALS, AND HUNDREDS OF DEFECTS THAT WERE NOT REPORTED. REF. PG. O-219.	TRT ---	(REFER TO ITEM 11.03L FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

IN THE EVIDENCE PRESENTED, THE CONCERN THAT THERE WAS A LACK OF JOB COORDINATION WAS SUBSTANTIATED ONLY IN THE AREA OF CARELESS WORKMANSHIP. THE DETAILS FOUND BY TRT INDICATING CARELESS WORKMANSHIP ARE OUTLINED IN THE RESULTS REPORTED IN QA/QC CATEGORY B. TRT CONCLUDED THAT TU ELECTRIC HAD ADEQUATE MEASURES TO ASSURE GOOD SITE COORDINATION.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.31 SSER: 11 ALLEG: AQ-113 ITEM: 11.31	AQ-113 TEXAS UTILITIES ELEC. CO. (TUEC) MANAGEMENT LACKED COMMITMENT TO AN ADEQUATE QUALITY ASSURANCE AND CONTROL PROGRAM IN THE UNTIMELY REPORTING OF TRANSFORMER FAILURES TO THE NRC. REF. PG. 0-223.	TRT --- BASED ON THE ASSESSMENT OF TUEC'S UNTIMELY REPORTING OF THE FERRORESONANT TRANSFORMER FAILURES, THE TRT CONCLUDES THAT THE ALLEGATION IS SUBSTANTIATED, AND THAT THIS VIOLATION COULD INDICATE A LACK OF MANAGEMENT COMMITMENT TO AN EFFECTIVE QA/QC PROGRAM. IT APPEARS THAT THIS PARTICULAR VIOLATION WAS CAUSED BY INEFFECTIVE PROCEDURAL IMPLEMENTATION. THIS EXAMPLE OF INEFFECTIVE 10 CFR 50.55(E) REPORTING, WHICH IS NOT AN ISOLATED OCCURRENCE, HAS POTENTIAL GENERIC IMPLICATIONS, AS NOTED IN QA/QC CATEGORY 2. ALLEGATION AQ-102. TU ELECTRIC PROCEDURES FOR REPORTING SIGNIFICANT CONSTRUCTION DEFICIENCIES LACK SPECIFICITY. THE NRC PREPARED NOTICE OF VIOLATION 445/84-22-V-02 FOR THIS FAILURE TO REPORT AS REQUIRED AND CLOSED IT ON MARCH 6, 1986; 445/85-14 AND 446/85-11.	ISAP(s) VII.A.2



COPACHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

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TRT ISSUE SUMMARY

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ISSUE SOURCE

\*\* 11 11.34  
SSER: 11  
ALLEG: AQ-133  
ITDM: 11.34

AQ-133  
MANAGEMENT OF TUEC'S PERSONNEL  
EXIT INTERVIEW PROGRAM HAS  
INADEQUATE AND THE PROGRAM WAS  
NOT EFFECTIVE. REF. PG. 0-237.

TRT

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TU ELECTRIC INITIATED AN EXIT INTERVIEW PROGRAM IN  
OCTOBER 1983. IN APRIL 1984, TU ELECTRIC ALSO  
INITIATED A QUALITY AWARENESS PROGRAM TEST INCLUDED A  
BOUTLINE FOR EMPLOYEES TO CALL IN QUALITY MATTERS. TRI  
SUBSTANTIATED THE CONCERN REGARDING THE ADEQUACY AND  
EFFECTIVENESS OF THE EXIT INTERVIEW PROGRAM. THE EXIT  
INTERVIEW QUESTIONNAIRE AND FOLLOWUP DID NOT APPEAR TO  
MEET PROGRAM OBJECTIVES.

ISAP(s) VII.A.6

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

<p>** 11 11.36A-4 AQ-050 SSER: 11 DEFICIENCIES SUCH AS LOOSE BOLTS ALLEG: AQ-050 OR BAD WELDS WERE NOT REPORTED. ITEM: 11.36A-4 REF. PG. 0-245.</p>	<p>TRT --- IDENTIFYING THESE TYPES OF DEFICIENCIES WAS NOT THE PRINCIPAL PURPOSE OF THE IEB 79-14 PROGRAM. HOWEVER, THESE TYPES OF DEFICIENCIES, WHEN DETECTED, SHOULD HAVE BEEN REPORTED TO THE INSTALLATION QC INSPECTOR. WHEN THE QC INSPECTOR WAS NOTIFIED OF ANY DEFICIENCIES, NONCOMFORMANCE REPORTS SHOULD HAVE BEEN PROCESSED BY THE QC INSPECTOR AS APPROPRIATE. NO SPECIFIC DETAILS WERE PROVIDED BY THE ALLEGER. HOWEVER, AN INDEPENDENT INSPECTION BY TRT, USING QC INSTALLATION INSPECTION CRITERIA, IS DISCUSSED IN SECTION A. B. 0 P THE TRT ASSESSMENT OF AQ-50.</p>	<p>ISAP(6) VII.B.3; VII.C. APPENDIX 25, 26, 27 (REFER TO ITEM 11.04E FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES) PSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS</p>
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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERa 07, 08, 10 and 11

ISSUE SOURCE    ISSUE    TRT ISSUE SUMMARY    TUL/CPRT RESOLUTION DOCUMENTS

\*\* 11 11.368-1 AQ-050  
SSER: 11    IN THE COURSE OF INSPECTING A2  
ALLEG: AQ-050    PIPE SUPPORTS, TRT FOUND  
ITEM: 11.368-1    POTENTIALLY GENERIC  
                      DIFFICIENCIES. REF. PG 0-253.

TRT ---  
STRT AND SHUBBER LOAD PIN SPHERICAL BEARING CLEARANCE  
WITH WASHERS WAS EXCESSIVE. BAR PROCEDURE  
Q1-GAP-11.1-28, SEC. 3.7.3.1, REV. 25 DEFINED BEARING  
GAP AS THE SPACE BETWEEN THE OUTSIDE SURFACE OF THE  
BEARING RACE AND THE INSIDE SURFACE OF THE CLEVIS  
BRACKET AND MAY NOT BE MORE THAN ONE THICKNESS OF THE  
VENDOR-SUPPLIED SPACER WASHER TO PREVENT BEARINGS FROM  
DISLOOING FROM THEIR SEATS. BEARING DISLOOEMENT  
COULD CAUSE SHUBBER OR STRUT MISALIGNMENT AND CHANGE  
ITS MOMENT RANGE, OR ANGLE OF LOADING, THUS DEGRADING  
THE SHUBBER'S OR STRUT'S LOADING CAPACITY.

ISAP(e) VII.C, APPENDIX 25; VII.C, APPENDIX 26, APPENDIX 27;  
VII.B.3  
PSR: LARGE BORE PIPING PIPE SUPPORTS  
SMALL BORE PIPING PIPE SUPPORTS  
CAR 68Z

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.368-3 AQ-050 SER: 11 ALLEG: AQ-050 ITEM: 11.368-3	IN THE COURSE OF INSPECTING 42 PIPE SUPPORTS, THE TRT FOUND POTENTIALLY GENERIC DEFICIENCIES, REF. PG 0-253.	TRT --- PIPE CLAMP HALVES ON THE LOAD SIDE WERE NOT PARALLEL. (REF. Q1-QAP-11.1-28, SEC. 3.7.3.1, REV. 25.)	ISAP(8) VII C, APPENDIX 25; VII C, APPENDIX 26; VII C, APPENDIX 27; VII B.3 FSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS CAR 069X

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.368-4 AQ-050 SSER: 11 ALLEG: AQ-050 ITEM: 11.368-4	IN THE COURSE OF INSPECTING 42 PIPE SUPPORTS, TRT FOUND POTENTIALLY GENERIC DEFICIENCIES. REF. PG 0-253.	TRT --- THREAD ENGAGEMENT OF BOLTS INTO TAPPED HOLES OF SWABBER ADAPTER PLATE WAS LESS THAN FULL. (REF. ASME SEC. III, NP 4711.)	ISAF(a) VII.B.3 PSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS CAR 66X PROCEDURE: AQP 11.3

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.368-5 AQ-050 SSER: 11 ALLEG: AQ-050 ITEM: 11.368-5	IN THE COURSE OF INSPECTING A2 PIPE SUPPORTS, TRT FOUND POTENTIALLY GENERIC DEFICIENCIES. REF. PG 0-233.	TRT --- "BILTI MIX" BOLTS (CONCRETE EXPANSION ANCHORS) AS INSTALLED DID NOT MEET MINIMUM EFFECTIVE EMBEDMENT CRITERIA. (REF. QI-QP-11.2-1, SEC. 3.3.1, REV. 10).	ISAP(s) VII.B.4, VII.C, APPENDIX 32 STIR CPRT-S-001 CAR 87-031, 87-032 SDAR 87-59, 87-66, 86-04

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.368-6 AQ-030 SSER: 11 ALLEG: AQ-030 ITEM: 11.368-6	IN THE COURSE OF INSPECTING 42 PIPE SUPPORTS, TRT FOUND POTENTIALLY GENERIC DEFICIENCIES. REF. PG 0-253.	TRT --- LOCKING DEVICES FOR THREADED FASTENERS WERE MISSING OR OF A NON-APPROVED TYPE. (REF. ASME SEC. IIF 4725.)	ISAP(8) VII. B. APPENDIX 3; VII. C. APPENDIX 25, VII. C. APPENDIX 26, VII. C. APPENDIX 27 PSR: LARGE BORE PIPING AND PIPE SUPPORTS SMALL BORE PIPING AND PIPE SUPPORTS CAR 66X, 67X

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSEN# 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.368-7 AQ-050 SSE# 11 ALLEG: AQ-050 ITEM: 11.368-7	THE AS-BUILT VERIFICATION EFFORT CONDUCTED BY THE TRT (OF THE ELECTRICAL RACEMAN SUPPORTS) PROVIDES EVIDENCE OF FAULTY CONSTRUCTION, BY CRAFT, INSTALLED HARDWARE THAT DOES NOT MATCH AS-BUILT DRAWINGS, AND INEFFECTIVE QA AND QC INSPECTIONS. REF. PG 0-264	TRT --- BASED ON INSPECTION FINDINGS IN CLASS IIE ELECTRICAL SUPPORTS AND THE HIGH RATE OF REJECTABLE CHARACTERISTICS PERHAPS UNIQUE TO ELECTRICAL SUPPORTS, THE TRT CONCLUDED THAT BAR INSPECTION OF THESE ELECTRICAL CABLE TRAY AND CONDUIT SUPPORTS WAS UNSATISFACTORY AND THAT OBJECTIVE EVIDENCE OF COMPLIANCE WITH SPECIFIED ENGINEERING AND CONSTRUCTION CRITERIA WAS NOT PROVIDED.	ISAP(8) VII.C. APPENDIX 32; VII.B.4. VII.C. APPENDIX 33 FSR: CABLE TRAY AND CABLE TRAY HANGERS CONDUIT SUPPORTS TRAIN A & B AND TRAIN C LARGER THAN 2 INCH DIAMETER



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

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TU/CPRT RESOLUTION DOCUMENTS  
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TRT ISSUE SUMMARY  
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ISSUE  
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\*\* 11 11.368-8 AQ-050  
SSER: 11 TU ELECTRIC FAILED TO REPORT  
ALLEG: AQ-050 VIOLATION OF ASME CODE TO NRC.  
ITEM: 11.368-8 REF. PG. 0-263

(REFER TO ITEM 11 84E FOR LISTING OF RESOLUTION DOCUMENTS RELATED  
TO THE TRT PROGRAMMATIC CATEGORIES)

TRT  
---  
TRT'S FINDINGS WITH REGARD TO TU ELECTRIC'S OMISSION  
OF LOCKING DEVICES FOR WF SUPPORT THREADED FASTENERS  
WERE THAT QA/QC FAILED TO REPORT THE VIOLATION OF THE  
REQUIREMENTS OF ASME III, WF, SUBARTICLE 4725, BY A  
FORMAL NONCOMFORMANCE REPORT (NCR). FURTHER, TU  
ELECTRIC FAILED TO REPORT THE ASME CODE VIOLATION TO  
THE NRC AND WAS, THEREFORE, IN NONCOMPLIANCE WITH THE  
REQUIREMENTS OF 10CFR50.55(e).

COSANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

TRT ISSUE SUMMARY

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 11 11.36C-1 AQ-050

SSER: 11 POTENTIAL EXISTED FOR EXCESSIVE

ALLEG: AQ-050 RADIAL WELD SHRINKAGE,

ITEM: 11.36C-1 ESPECIALLY FOR THIN-WALLED

STAINLESS STEEL PIPE. REF. PG.

0-263.

TRT

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TRT MEASURED SHRINKAGE IN A WELD JOINT OF A 12 INCH  
DIAMETER SAFETY INJECTION LINE THAT EXCEEDED THE 3/16

INCH CRITERIA THAT WAS INCORPORATED BY DCA IN THE

GIBBS & HILL PIPING ERECTION SPECIFICATION IN 1982.

TRT ACKNOWLEDGED THAT THE QC INSPECTION CRITERIA FOR

THE WELD JOINT INVOLVING RADIAL WELD SHRINKAGE WAS NOT

VIOLATED AT THE TIME OF THE VISUAL TEST INSPECTION AND

THAT THE ASME CODE PRIOR TO 1987 DID NOT SPECIFICALLY

ADDRESS ACCEPTANCE CRITERIA FOR WELD SHRINKAGE. TRT

REQUESTED THAT TU ELECTRIC ASSES THE SAFETY

SIGNIFICANCE OF WELD SHRINKAGE ESPECIALLY FOR THIN

WALLED STAINLESS STEEL PIPE.

ISAP VII C. APPENDIX 12

PSR: MECHANICAL

CAR 87-029

TUE/CPRT RESOLUTION DOCUMENTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

TUE/C/PRT RESOLUTION DOCUMENTS

\*\* 11 11.37A AQ-135  
SSEN: 11 PCVP FAILED TO ADEQUATELY  
ALLEG: AQ-135 PROCESS THE RESULTS OF QC  
ITEM: 11.37A INSPECTIONS AS REQUIRED BY  
10CFR50, APPENDIX B, REF. PG  
0-27A

ISAP(s) VII.A.2

TRT

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THE TRT CONCLUDES THAT THE PCVP MEETS THE REQUIREMENTS OF IEEE-336. MOST ASPECTS OF THE ALLEGATION WERE NOT SUBSTANTIATED AND HAD NO GENERIC IMPLICATION. HOWEVER, THE ALLEGATION OF INADEQUATE REVIEW OF IDENTIFIED DEFICIENCIES LED THE TRT TO DETERMINE A PROGRAMMATIC WEAKNESS INVOLVING THE LACK OF GUIDANCE ON THE LEVEL OF DEFICIENCY NEEDED TO INITIATE AN NCR. THIS FINDING HAS GENERIC IMPLICATIONS FOR TU ELECTRIC AND OTHER INSPECTION AND CORRECTIVE ACTION PROGRAMS. FOR THE DESIGN AND CONSTRUCTION OF CPSES. REVIEW OF THIS ALLEGATION ALSO LED THE TRT TO CONCLUDE THAT TU ELECTRIC'S PROGRAM FOR TRENDING NONCONFORMANCES WAS WEAK.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TRT ISSUE SUMMARY

TRT ISSUE SUMMARY

\*\* 11 11.378

AQ-135  
THE PCVP HAD INADEQUATE SCOPE &  
DEPTH.

INADEQUATE REVIEW OF IDENTIFIED  
DEFICIENCIES, AND INADEQUATE  
FOLLOWUP OF PROGRAM RESULTS.  
REF. PG. 0-267

TRT

TRT CONCLUDED THAT THE POST CONSTRUCTION VERIFICATION PROGRAM (PCVP) MET THE REQUIREMENTS OF IEEE-336. MOST ASPECTS OF THE ALLEGATION WERE NOT SUBSTANTIATED AND HAD NO GENERIC IMPLICATIONS. HOWEVER, THE ALLEGATION OF INADEQUATE REVIEW OF IDENTIFIED DEFICIENCIES LED TRT TO DETERMINE A PROGRAMMATIC MEASURES INVOLVING THE LACK OF GUIDANCE ON THE LEVEL OF DEFICIENCY NEEDED TO INITIATE A NONCONFORMANCE REPORT. THIS FINDING HAS GENERIC IMPLICATIONS FOR TU ELECTRIC'S OTHER INSPECTION AND CORRECTIVE ACTION PROGRAMS FOR THE DESIGN AND CONSTRUCTION OF CPSES. REVIEW OF THIS ALLEGATION ALSO LED TRT TO CONCLUDE THAT TU ELECTRIC'S PROGRAM FOR TRENDING NONCONFORMANCES WAS WEAK.

TSAP(s) VII.A.2

TUE/CPRT RESOLUTION DOCUMENTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11  
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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.41 SSER: 11 ALLEG: AQ-008 ITEM: 11.41	AQ-008 THERE WAS AN INTENTIONAL COVERUP OF KNOWN DEFICIENCIES IN THE DOCUMENT CONTROL SYSTEM. REF. PG. 0-21.	TRT --- TRT REFERRED THIS ALLEGATION TO MRC OFFICE OF INVESTIGATIONS.	ISAP(s) VII A.3

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.83A SSER: 11 ALLEG: TRT-P1 ITEM: 11.83A	TRT-P1 DESIGN PROCESS. REF PG P-27	COMMENTS FIELD ----- TRT DESCRIPTION AND CPRT RESOLUTION OF THIS ISSUE IS CONTAINED IN ITEM 11.83A, TRT-P1, DESIGN PROCESS ISSUES.	TUE PROCEDURE (s) ECE: 5.01-03, 5.00-01 CAR 87-073 TASK DESCRIPTION: CPE-TD-SMEC-061 SOAR CP-87-10

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

TRT/CPT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 11 11.03B TRT-02  
SSER: 11 DOCUMENTED CONTROL ISSUES (REF  
ALLEG: TRT-02 PG 0-9)  
ITEM: 11.03B

(REFER TO ITEM 11.04B FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

OF THE 30 ALLEGATIONS AND CONCERNS PERTAINING TO DOCUMENT CONTROL, 11 COULD NOT BE SUBSTANTIATED, 13 WERE SUBSTANTIATED, AND 6 WERE PARTIALLY SUBSTANTIATED. THOSE THAT WERE SUBSTANTIATED IN WHOLE OR PART RELATED TO PROCEDURAL DEVIATIONS OR ADMINISTRATIVE FLAWS IN THE DOCUMENT CONTROL FUNCTION, AS IT EXISTED AT THE TIME WHEN THE ALLEGATIONS ORIGINATED.

THE QA/QC GROUP FOUND THAT PRIOR TO 1984, THERE WERE NUMEROUS RECURRING ADMINISTRATIVE AND PROCEDURAL DEVIATIONS IN THE DOCUMENT CONTROL FUNCTION. MANY OF THESE RECURRING DEFICIENCIES WERE IDENTIFIED BY INTERNAL AND EXTERNAL AUDITS, BUT THERE WAS LITTLE FOLLOW-UP OR VERIFICATION BY THE ELECTRIC MANAGEMENT THAT EFFECTIVE CORRECTIVE ACTIONS WERE TAKEN, UNTIL EARLY IN 1984 WHEN THE DOCUMENT CONTROL CENTER (DCC) MONITORING TEAM BEGAN REPORTING TO SENIOR MANAGEMENT. THE CURRENT DOCUMENT CONTROL PROGRAM, WITH AN ESTIMATED ERROR RATE OF ONE PERCENT OR LESS, WAS FOUND TO BE ADEQUATELY STAFFED AND EFFECTIVE. THE PROBLEM OF INCORRECT AND INCOMPLETE DRAWING PACKAGES APPEARS TO HAVE BEEN CORRECTED.

THE QA/QC GROUP FOUND THAT THE ELECTRIC DID NOT REPORT THE IDENTIFIED DEFICIENCIES WITHIN THE DCC TO THE NRC AS REQUIRED BY 10 CFR 50.55(e). ONLY DEFICIENCIES IDENTIFIED BY THE ENGINEERING, CRAFT, AND TESTING DISCIPLINES WERE SUBMITTED TO THE NRC AS 10 CFR 50.55(e) ITEMS. (SEE ATTACHMENT 2, QA/QC CATEGORY 2.)

ALTHOUGH IT WAS ASSUMED BY QC THAT PAST FINAL INSPECTIONS AND ACCEPTANCE OF COMPLETED WORK WERE PERFORMED USING THE LATEST ISSUE OF DESIGN DRAWINGS, THE POTENTIAL EXISTED FOR ISSUING INCOMPLETE DOCUMENT PACKAGES TO CRAFT PERSONNEL, THUS THE LATEST REVISION OF DOCUMENTS MAY NOT ALWAYS HAVE BEEN USED. ACCORDINGLY, THE QA/QC GROUP PHYSICALLY COMPARED A SAMPLE OF INSTALLED HARDWARE TO THE AS-BUILT DOCUMENTATION IN THE PLANT PERMANENT RECORDS VAULT.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

THE RESULTS OF THIS COMPARISON AS PRESENTED IN CATEGORY 8 OF ATTACHMENT 2 (AQ-50) GIVES EXAMPLES OF WHERE THE HARDWARE CONSTRUCTION DOES NOT MATCH THE DRAWINGS.

IN SUMMARY, THE QA/QC GROUP FOUND THE CURRENT DOCUMENTATION CONTROL PROGRAM TO BE ACCEPTABLE. HOWEVER, PRIOR TO 1984, AS IDENTIFIED BY CAT AND TU ELECTRIC, THERE WAS A DOCUMENT CONTROL BREAKDOWN. ALTHOUGH MANY OF THE DOCUMENT CONTROL DEFICIENCIES HAVE BEEN CORRECTED, THE IMPLICATION OF PAST INADEQUACIES ON CONSTRUCTION AND INSPECTION HAVE POTENTIAL GENERIC SIGNIFICANCE WHICH HAS NOT YET BEEN FULLY ANALYZED BY TU ELECTRIC.



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

TUE/C/PRT RESOLUTION DOCUMENTS

\*\* 11 11.83C TRT-03  
SSER: 11  
ALLEG: TRT-03  
ITDX: 11.83C

ELEVEN ALLEGATIONS PERTAINED TO RECORDS; THREE WERE SUBSTANTIATED. THE THREE SUBSTANTIATED ALLEGATIONS (AQ 49, 74, 123) PERTAIN TO THE LOSS OF CONSTRUCTION, FABRICATION, INSTALLATION AND INSPECTION RECORDS, WHICH WERE SUBSEQUENTLY FOUND, RECONSTRUCTED, OR REPLACED IN ACCORDANCE WITH APPROVED PROCEDURES. THE QA/QC GROUP CONCLUDES THAT THE RECORDS SYSTEM IS ADEQUATE AND ACCEPTABLE.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- 55ERs 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 11 11.83D  
SSER: 11  
ALLEG: TRT-04  
ITEM: 11.83D

TRT-04  
TRAINING AND QUALIFICATION  
ISSUES (REF PG 0-10)

TRT

(REFER TO ITEM 11.84C FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

OF EIGHT ALLEGATIONS IN THIS CATEGORY, THREE COULD NOT BE SUBSTANTIATED. FIVE ALLEGATIONS WERE SUBSTANTIATED, OR WERE OF SUSPICIOUS SUBSTANCE TO CAUSE CONCERN. THE QA/QC GROUP FOUND NUMEROUS DEFICIENCIES IN THE SITE INSPECTOR QUALIFICATION AND CERTIFICATION PROGRAM, INCLUDING THE FOLLOWING: AN IDENTICAL CERTIFICATION TEST COULD BE TAKEN AFTER FAILING THE FIRST ONE, AND THERE WAS NO LIMIT ON HOW MANY TIMES AN EXAMINATION COULD BE RETAKEN; TWENTY PERCENT OF THE 102 TRAINING RECORDS REVIEWED CONTAINED NO VERIFICATION OF EDUCATION OR WORK EXPERIENCE; THERE WERE NO GUIDELINES PROVIDED FOR THE USE OF WAIVERS FOR ON-THE-JOB TRAINING, ALTHOUGH WAIVERS WERE FREQUENTLY USED; SEVEN INSPECTORS WERE IDENTIFIED AS HAVING QUESTIONABLE QUALIFICATIONS; AND WHITE-OUT WAS USED ON CERTIFICATION TESTS.

THERE ALSO WERE NUMEROUS PROBLEMS IN THE NON-ASME (TU ELECTRIC) INSPECTOR CERTIFICATION TESTING, SUCH AS: NO REQUIREMENTS FOR ADDITIONAL TRAINING BETWEEN A FAILED TEST AND THE RETEST; NO TIME LIMITATION BETWEEN A FAILED TEST AND A RETEST; DIFFERENT SCORING METHODS TO GRADE THE ORIGINAL TEST AND THE RETEST; NO GUIDELINES ON HOW A TEST QUESTION SHOULD BE DISQUALIFIED; NO PROGRAM FOR PERIODICALLY ESTABLISHING NEW TESTS, EXCEPT WHEN PROCEDURES CHANGED, AND NO DETAILS ON HOW THE ADMINISTRATION OF TESTS SHOULD BE MONITORED. THE TRT ALSO FOUND THAT THERE WERE FIVE CRAFT PERSONNEL WHO TRANSFERRED INTO QC INSPECTION THAT HAD NO PRIOR BACKGROUND OR EXPERIENCE IN INSPECTION, AND ALSO WERE FOUND TO HAVE QUESTIONABLE QUALIFICATIONS. THESE PROBLEMS AMOUNT TO A PATTERN OF ACTIVITIES INDICATING INADEQUATE CONTROLS TO ENSURE CORRECT APPLICATIONS OF QC TRAINING AND QUALIFICATION PROGRAM, I.E., TO ASSURE THAT THE PROGRAM ACHIEVES, IMPLEMENTS, AND MAINTAINS REQUIREMENTS AS SET FORTH BY 10 CFR PART 50, APPENDIX B.

ALTHOUGH ON PAPER THE ASME (B&R) PERSONNEL TRAINING AND CERTIFICATION PROGRAM, AS ESTABLISHED BY TU

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TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

ELECTRIC AND BAR PROCEDURES, MET THE REQUIREMENTS OF ANSI N45.2.6, AND REGULATORY GUIDE 1.58. IN PRACTICE THESE GUIDELINES WERE NOT FOLLOWED. INSTEAD, THE PROGRAM, IN PRACTICE, FOLLOWED THE "EXCEPTION TO THE RULE" AND USED "OTHER FACTORS" AS THE NORMAL METHOD OF QUALIFICATION OF THE 102 INSPECTOR RECORDS SAMPLED. MORE THAN 80 PERCENT OF THE INSPECTORS WERE QUALIFIED UNDER THE "EXCEPTION TO THE RULE" FACTOR.

THE QA/QC GROUP NOTES THAT NOT ALL QC INSPECTORS HAD DOUBTFUL QUALIFICATIONS. FOR EXAMPLE, IN SOME SMALL GROUPS, SUCH AS THE DESIGN CHANGE VERIFICATION GROUP (DCVG). THE TRT QA/QC GROUP FOUND ONLY ONE OF 19 INSPECTORS THAT HAD QUESTIONABLE QUALIFICATIONS. BUT, THE QA/QC GROUP ALSO NOTES THAT OVER 80 PERCENT OF ALL SITE LINE QC INSPECTORS WERE QUALIFIED TO THE SECONDARY "EXCEPTION TO THE RULE" CLAUSE; AND THEM TO MAKE MATTERS MORE SERIOUS. THIS SECONDARY PROGRAM HAD MANY DEFICIENCIES AND EXCESSES (PREVIOUSLY NOTED) THAT FURTHER DEHEADED THE CREDIBILITY OF THE QUALIFICATIONS.

THE TRT QA/QC GROUP CONCLUDES THAT THE WEAK QC QUALIFICATION PROGRAM MAY HAVE RESULTED IN THE NON-DETECTION OF OR FAILURE TO REPORT THE BAROMARE DEFICIENCIES IDENTIFIED IN QA/QC CATEGORY 8, AQ-50, AND IN TRT SSER# 7 THROUGH 10. THE QA/QC GROUP CONCLUDES THAT THE WIDESPREAD DEFICIENCIES AND MINIMAL REQUIREMENTS IN THE QC INSPECTOR QUALIFICATION PROGRAM HAVE POTENTIAL QUALITY AND GENERIC IMPLICATIONS.

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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

0\* 11 11.03E TRT-05A  
ISSUE: 11 REPAIR, REMOVAL AND MAINTENANCE  
ALLEG: TRT-05A ISSUES (REF. PG 0-11)  
ITEM: 11.03E

(REFER TO ITEM 11.04D FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

APPENDIX C  
(SEE 3.2.5, PG 0-111ff)  
OF 13 ALLEGATIONS IN THIS CATEGORY, 10 WERE  
SUBSTANTIATED.

THE QA/QC GROUP FOUND THAT WELDERS FOLLOWED SPECIFIC WRITTEN PROCEDURES THAT DEFINED THE CRITERIA FOR DETERMINING WHEN DEFECTS REQUIRED IMPROCESS WELDING REPAIRS FOR EACH TYPE OF WELD FABRICATION. WELD REPAIRS WERE MADE IN ACCORDANCE WITH REPAIR PROCESS SHEETS, WHICH DEFINED OPERATIONAL STEPS FOR MAKING REPAIRS.

TU ELECTRIC FIELD WELDS ON THE AUXILIARY FEEDWATER AND COMPONENT COOLING WATER SYSTEMS, ALTHOUGH NOT REQUIRED BY ASME CODE SECTION III, CLASS 3, WERE EXAMINED RADIOGRAPHICALLY. THE RADIOGRAPHS WERE NOT INTERPRETED PROMPTLY, WHICH RESULTED IN DELAYED REPAIRS OF IDENTIFIED DEFECTIVE WELDS. THERE ARE NO ASME ACCEPTANCE CRITERIA FOR PROFICIENCY FOR WELDS THAT THE ASME CODE DOES NOT REQUIRE TO BE RADIOGRAPHED, ACCEPTED, DOCUMENTED AND SIGNED OFF PRIOR TO HYDROSTATIC TESTING OF THESE SYSTEMS. THE QA/QC GROUP FOUND NO OTHER EXAMPLES OF EXTENSIVE DELAYS IN THE REPAIR OF ASME RADIOGRAPHED MATERIAL.

ALTHOUGH ALLEGATIONS CONCERNING MISSED PERIODIC MAINTENANCE, AND CRAFT WORKERS "BOOTLEGGING" REMOVAL OR REPAIR OR PERMANENT EQUIPMENT TRANSFERS (PETS), AS ALLEGED, A DUPLICATION OF PAPERWORK ON FLANGE TRAVELERS DID OCCUR, BUT WAS IDENTIFIED BY TU ELECTRIC AND CORRECTED BY THE PAPER FLAME GROUP (PFG). THE QA/QC GROUP FOUND THAT THE VALVE DISC NUMBER ON THE TRAVELER DIFFERED FROM THAT ON THE DATA REPORT; BUT THIS MISMATCH OF NUMBERS WAS ONLY A NOMENCLATURE ERROR, AND THE VALVE IN QUESTION HAD THE PROPER DISC INSTALLED. NO OTHER SPECIFIC EXAMPLES WERE FOUND.

THE QA/QC GROUP FOUND THAT THE VALVE DISASSEMBLY AND

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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

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REASSEMBLY PROCESS FOR INSTALLATION, MAINTENANCE QMD TESTING HAS RESULTED IN COMPONENTS BEING LOST, DAMAGED, OR INTERCHANGED. THE RECURRENCES DOCUMENTED IN NONPERFORMANCE REPORTS (NCR) AND PERMANENT EQUIPMENT TRANSFERS (PET) WERE INDICATIVE OF A PROBLEM WITH QUALITY IMPLICATIONS; HOWEVER, THE QA/QC GROUP COULD FIND NO EVIDENCE THAT CORRECTIVE ACTION WAS INITIATED TO DETERMINE THE ROOT CAUSE AND PREVENT RECURRENCE OF THE PROBLEM. THE QA/QC GROUP CONCLUDES THAT THE FAILURE OF THE CORRECTIVE ACTION SYSTEM TO ADEQUATELY ADDRESS THIS RECURRING PROBLEM HAS QUALITY AND GENERIC IMPLICATIONS BECAUSE GALLING OR EVEN VALVE FAILURE MAY OCCUR IF VALVE BONNETS AND BODIES OF DIFFERENT PRESSURE AND TEMPERATURE RATINGS WERE MIXED.

IN SUMMARY, ALTHOUGH 10 ALLEGATIONS WERE CONFIRMED, THE ITEMS WERE IDENTIFIED AND CORRECTED BY TU ELECTRIC. THE MAJOR EXCEPTION WAS THE RECURRING PROBLEM WITH VALVE PARTS BEING LOST, DAMAGED, OR INTERCHANGED AND THE FAILURE TO DETERMINE ROOT CAUSE AND PREVENT RECURRENCE. AS STATED, THIS ITEM HAS QUALITY AND GENERIC IMPLICATIONS.



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TBT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE ----- ISSUE ----- TBT ISSUE SUMMARY ----- TUE/CPRT RESOLUTION DOCUMENTS -----

ITEMS RELEASED TO CONSTRUCTION.

THE QA/QC GROUP FINDS THAT THE NONCOMPLIANCES INDICATE A LACK OF PROCEDURAL AND MANAGEMENT CONTROL OF WORK FUNCTIONS IN THE IRON FABRICATION, SHOP AND THE POTENTIAL FOR HARDWARE FABRICATION ERRORS PRESENTS A QUALITY CONCERN OF POSSIBLE GENERIC IMPLICATIONS.



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TRT ISSUES -- SSER# 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
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\*\* 11 11.03G  
SSER: 11  
ALLEG: TRT-05C  
ITEM: 11.03G

TRT-05C  
HOUSEKEEPING ISSUES (REF PG  
0-13)

TRT

APPENDIX 0 (SEC. 3.2.7, PG# 0 - 13 & 0 - 14):

TWO ALLEGATIONS WERE INVESTIGATED BY THE TRT. THE ALLEGATION RELATING TO INADEQUATE CLEANLINESS CONTROLS DURING THE EARLY STAGES OF CONSTRUCTION (AQ-34) WAS SUBSTANTIATED. TU ELECTRIC'S QA SURVEILLANCE INSPECTIONS REPORTED A SUBSTANTIAL NUMBER OF CLEANLINESS PROCEDURE VIOLATIONS, WHICH WERE SUBSEQUENTLY CORRECTED. THE OTHER ALLEGATION CONCERNING A SUPERVISOR'S INSTRUCTIONS TO DISREGARD SOME REACTOR VESSEL CLEANLINESS CONTROL REQUIREMENTS (AQ-65), COULD NOT BE SUBSTANTIATED.

THE TRT ASSESSED THE CURRENT HOUSEKEEPING SYSTEM OF CLEANLINESS AND EQUIPMENT PROTECTION, PERFORMED A WALKDOWN SURVEILLANCE OF UNITS 1 AND 2, AND REVIEWED CLEANLINESS CONTROL PROCEDURES, AND FOUND THAT THE OVERALL PROGRAM FOR DETECTION AND CORRECTION OF HOUSEKEEPING DEFICIENCIES APPEARED TO BE SATISFACTORY. DURING THE TRT'S ASSESSMENT, TWO ITEMS WERE IDENTIFIED THAT REQUIRE TU ELECTRIC'S ACTION. THE FIRST PERTAINS TO THE NUMBER OF SWIPE TESTS REQUIRED BY DRAFT PROCEDURE FP-55-08 TO ASSURE THAT THE REACTOR VESSEL HAD BEEN ADEQUATELY CLEANED. THE SECOND PERTAINED TO AN OBSERVATION THAT NOT ALL PIPE SUPPORT SNUBBERS WERE PROTECTED FROM ONGOING CONSTRUCTION ACTIVITY.

(REFER TO ITEM 11.04D FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.03H SSER: 11 ALLEG: TRT-050 ITEM: 11.03H	TRT-050 NONCOMFORMANCE REPORT ISSUES (REF PG 0-14)	THE TRT DESCRIPTION AND CPRT RESOLUTION OF THIS ISSUE IS CONTAINED IN ITEM 11.84E, TRT-P-5, NONCOMFORMANCES AND CORRECTIVE ACTIONS.	(REFER TO ITEM 11.84E FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 11 11.03J TRT-06  
SSER: 11 QC INSPECTION ISSUES (REF PG  
ALLEG: TRT-06 0-13)  
ITEM: 11.03J

TRT

SIX ALLEGATIONS WERE REVIEWED BY THE QA/QC GROUP. ONE ALLEGATION WAS PARTIALLY SUBSTANTIATED (AQ-78). THE ALLEGATION THAT AN INSPECTOR WAS TOLD TO IGNORE PROBLEMS WITH PIPE WHIP RESTRAINTS WAS SUBSTANTIATED (AQ-38).

NUMEROUS WELD IRREGULARITIES WERE IDENTIFIED BY SITE QA INSPECTORS ON CHICAGO BRIDGE AND IRON (CB&I) PIPE WHIP RESTRAINTS. GIBBS & HILL (G&H) STRUCTURAL ENGINEERING EVALUATED THE SERIOUSNESS OF DEFECTS IN EACH RESTRAINT. BASED ON THIS REVIEW, G&H DISPOSITIONED 67 RESTRAINTS AS HAVING INSIGNIFICANT DEFECTS. OF THE 48 REMAINING RESTRAINTS, 21 WERE SELECTED AS WORST CASE AND THE WELDS ON THESE 21 RESTRAINTS WERE REINSPECTED THROUGH PAINT IN SOME CASES. A STRESS ANALYSIS WAS ALSO RUN FOR THESE 21 RESTRAINTS, AND BASED ON THIS INSPECTION AND ANALYSIS, ALL RESTRAINTS WERE FOUND ACCEPTABLE. THE QA/QC GROUP FOUND THAT THE SELECTION OF WORST CASE WELDS AND THEIR REANALYSIS WAS NOT ADEQUATELY DOCUMENTED TO PERMIT REVIEW. ACCORDINGLY, THE QA/QC GROUP CONCLUDES THAT THE TECHNICAL CONCERN RELEVANT TO THIS ISSUE HAD BEEN SUBSTANTIATED AND HAS POTENTIAL QUALITY AND GENERIC IMPLICATIONS.

THE ALLEGATION THAT FUEL POOL WELD RADIOGRAPHY WAS NOT COMPLETED WAS NOT SUBSTANTIATED (PART OF AQ-55).

THE QA/QC GROUP FOUND AN EXCESSIVE NUMBER OF IRREGULARITIES IN THE INSPECTION TRAVELERS FOR THE FUEL POOL LINERS. THESE DOCUMENTATION ANOMALIES DID NOT APPEAR TO BE FALSIFICATIONS, BUT OCCURRED BECAUSE OF POOR QA PRACTICES. THE QA/QC GROUP CONCLUDES THAT DOCUMENTATION ANOMALIES RESULTED FROM A POOR SYSTEM FOR CONTROL OF THESE PARTICULAR TRAVELERS, AND FROM THAT OF A POORLY IMPLEMENTED QC INSPECTION PROGRAM.

REFER TO ITEM 11.04F FOR LISTING OF RESOLUTION DOCUMENTS RELATED TO THE TRT PROGRAMMATIC CATEGORIES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

ISAP(a) VII.A.4; VII.A.5; VII.A.6  
CAR(e) 86-005D, 86-006D, 86-007D, 69X, 72X, 86X, 87-014, 87-042,  
87-050  
SDAR CP 85-34, CT 86-30, CP 86-63, CP 88-12  
STIR CPRT-S-001, CPRT-E-006

TRT-07  
QA SCOPE ISSUES (REF. PG 0-16)

\*\* 11 11.83X  
SSER 11  
ALLEG: TRT-07  
ITEM: 11.83X

APPENDIX F

(SEC. 3.2.11, PG 0-16 AND 0-17)  
THE TRT REVEALED 13 ALLEGATIONS IN THIS CATEGORY. FOUR ALLEGATIONS WERE SUBSTANTIATED (AQ-20, -126, -113, -133), THREE WERE PARTIALLY SUBSTANTIATED (AQ-89, -121, -132), AND SIX WERE NOT (AQ-6, -9, -25, -112, -122, -127). BASED ON REVIEWS AND INTERVIEWS CONDUCTED BY THE TRT, THE ALLEGATION AND CONCERNS THAT QC WAS RELUCTANT TO REPORT DEFICIENCIES IN THE PAST COULD NOT BE SUBSTANTIATED OR REFUTED. IN REGARDS TO THE ALLEGATION OF CARELESS WORKMANSHIP, DURING ITS AS-BUILT INSPECTIONS THE TRT FOUND OBVIOUS CARELESS WORKMANSHIP THAT QC FAILED TO IDENTIFY.

WITH RESPECT TO THE RECEIPT OF NONCONFORMING MATERIAL AT CPSES, THE QA/QC GROUP FOUND THAT THE RECEIVING INSPECTION SYSTEM USED AT CPSES WAS ADEQUATE TO PRECLUDE INSUFFICIENTLY EXAMINED OR NONCONFORMING MATERIAL FROM BEING RELEASED FOR INSTALLATION.

THE TRT COULD NOT SUBSTANTIATE THE ALLEGATION AND CONCERN IN REGARDS TO THE QUALIFICATIONS OF BROWN & ROOT QA CONSTRUCTION MANAGERS, BROWN & ROOT QA MANAGEMENT AND ENGINEERS JOB CLASSIFICATIONS/POSITIONS PREREQUISITES INCLUDED SPECIFIC EDUCATION AND EXPERIENCE REQUIREMENTS. BASED ON THE REVIEW OF SELECTED MANAGERS QUALIFICATIONS (EDUCATION/TRAINING), IT WAS NOTED THAT THE EDUCATION REQUIREMENTS FOR A UPPER MANAGEMENT POSITIONS WERE MAILED USING AN EXCLUSION CLAUSE. THIS PERMITTED WORK EXPERIENCE TO BE WHOLLY SUBSTITUTED FOR EDUCATION REQUIREMENTS. THE ALTERATION OF MANAGEMENT POSITION PREREQUISITES IS NOT A VIOLATION OF MRC REQUIREMENTS. NEVERTHELESS, SUCH PRACTICE IS ANOTHER EXAMPLE OF BROWN & ROOT OVERUSE OF THE "EXCEPTION TO THE RULE CLAUSE."

THE TRT SUBSTANTIATED THE ALLEGATION AND CONCERNS OF THE POTENTIAL FOR CRAFT PERSONNEL AND QC INSPECTORS REVIEWING RECORDS OF THEIR OWN WORK. BOTH BROWN & ROOT AND THE ANI'S ACKNOWLEDGED THAT PAST INSTANCES OCCURRED

TUE/CPRT RESOLUTION DOCUMENTS

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TRT/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

IN WHICH RECORD REVIEWERS VERIFIED/ACCEPTED INSPECTION RECORDS THAT CONTAINED THE RESULTS OF THEIR OWN QC INSPECTIONS. THE AMI REQUIRED SUCH RECORDS TO BE INDEPENDENTLY REVERIFIED. SINCE RECORD REVIEWERS WERE PLACED IN POSITION TO REVIEW THEIR OWN WORK, THE INDEPENDENCE OF RECORD REVIEWERS IN THE PAST IS SUSPECT.

THE ALLEGATION AND CONCERN THAT QC LACKED ORGANIZATIONAL INDEPENDENCE FROM CONSTRUCTION COULD NOT BE SUBSTANTIATED OR REFUTED.

THE TRT ALSO CONCLUDES THAT IMPROVEMENTS NEED TO BE MADE IN THE MANAGEMENT OF TU ELECTRIC'S EXIT INTERVIEW PROGRAM. MEIBS APPEARED TO LACK OBJECTIVITY AND EFFECTIVENESS.

WITH RESPECT TO TU ELECTRIC'S AUDITS AND AUDITORS, THE TRT FOUND THAT DURING THE PEAK CONSTRUCTION PERIOD (1981-1982), THE AUDIT GROUP CONSISTED OF ONLY FOUR AUDITORS. WITH RESPECT TO THE ALLEGATION AND CONCERN THAT THE AUDIT REPORTS WERE CHANGED, THE QA/QC GROUP FOUND THAT THE IDENTIFIED AUDIT REPORT WAS BASED ON INCORRECT REGULATORY REQUIREMENTS. THE CHANGES MADE BY THE QA SUPERVISOR WERE APPROPRIATE. THE TRT NOTES THAT WHAT IS IMPORTANT IS THAT THE AUDITORS WERE INADEQUATELY TRAINED AND DID NOT HAVE ADEQUATE PROCEDURES TO PERFORM THEIR AUDIT TASK CORRECTLY.

THE ALLEGATION AND CONCERN THAT TU ELECTRIC MANAGEMENT LACKED COMMITMENT TO AN ADEQUATE QA/QC PROGRAM WAS SUBSTANTIATED, E.G., FAILURE TO PERFORM MANAGEMENT ASSESSMENT AND OVERVIEW OF THE EFFECTIVENESS OF THE QA PROGRAM AND UNTIMELY REPORTING OF SIGNIFICANT DEFICIENCIES AS REQUIRED BY 10 CFR 20.55(e). ALTHOUGH TU ELECTRIC'S DOCUMENTED QUALITY PROGRAM MANUAL MET THE NRC'S REQUIREMENTS, THE TRT FOUND THAT THE IMPLEMENTATION OF THE QA PROGRAM IN A NUMBER OF AREAS WAS INEFFECTIVE, BECAUSE THERE WAS A LACK OF SENIOR TU ELECTRIC MANAGEMENT COMMITMENT TO, AND VERIFICATION OF, AN EFFECTIVELY IMPLEMENTED QA PROGRAM.

IN SUMMARY, THE TRT CONCLUDES THAT THE SIGNIFICANCE AND GENERIC IMPLICATIONS OF AN INEFFECTIVE QA PROGRAM

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TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

IMPLEMENTATION ARE REFLECTED IN THE RESULTS OF THE  
TRT'S EVALUATION OF THE QA/QC PROGRAMS AS CPSES.  
INCLUDING AS-BUILT INSPECTIONS OF COMPLETED SYSTEMS OR  
CIRCUITS, WHICH HAD BEEN INSPECTED AND ACCEPTED BY  
T. ELECTRIC.

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TUE/CPRT RESOLUTION DOCUMENTS

ISSUE SOURCE

TRT ISSUE SUMMARY

\*\* 11 11 83L TRT-08  
SSER: 11 AS-BUILT ISSUES (REF PG 0-17)  
ALLEG: TRT-08  
ITEM: 11 83L

TRT  
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THE QA/QC GROUP REVIEWED FOUR ALLEGATIONS IN THIS CATEGORY. TWO ALLEGATIONS WERE NOT SUBSTANTIATED AND TWO WERE PARTIALLY SUBSTANTIATED.

WITH RESPECT TO THE ALLEGATION AND CONCERN THAT CRAFT PERSONNEL WOULD MAKE THINGS FIT, AND MCRs WERE VOIDED BY ENGINEERS WRITING AS-BUILT OR USE-AS-IS ON TRIM, THE QA/QC GROUP FOUND THAT MODIFICATIONS TO VENDOR-CERTIFIED DRAWINGS, WHICH REFLECTED THE AS-BUILT CONDITION, WERE PROPERLY RECERTIFIED BY THE VENDOR'S ON-SITE REPRESENTATIVE IN ACCORDANCE WITH SITE PROCEDURES. THE QA/QC GROUP REVIEWED 72 MCRs THAT WERE DISPOSITIONED USE-AS-IS AND FOUND NONE THAT WERE IMPROPERLY DISPOSITIONED.

THE POST-CONSTRUCTION VERIFICATION PROGRAM (PCVP) WALKDOWNS WERE MADE AFTER FINAL INSPECTIONS AND PRIOR TO A PLANT AREA BEING TURNED OVER TO THE TU ELECTRIC STARTUP TESTING ORGANIZATION. WALKDOWNS BY PLANT OPERATIONS PERSONNEL WERE NOT CONSIDERED TO BE INSPECTIONS, BUT SERVED TO IDENTIFY AND CORRECT ANY REMAINING DEFICIENCIES. THE QA/QC GROUP COULD NOT SUBSTANTIATE MOST OF THE ALLEGATIONS AND CONCERNS RELEVANT TO THE PCVP. DURING THE COURSE OF ITS REVIEW, THE QA/QC GROUP FOUND CERTAIN PROGRAMMATIC WEAKNESSES DUE TO A LACK OF GUIDANCE WITH RESPECT TO THE LEVEL OF DEFICIENCY REQUIRED TO INITIATE AN MCR, AND WITH RESPECT TO TRENDING NONCONFORMANCES. THE MAIN WEAKNESS APPEARED TO BE IN HOW TO DETERMINE WHETHER AN IDENTIFIED NONCONFORMANCE WARRANTED MORE EXTENSIVE CORRECTIVE ACTION OR WARRANTED A BROADER ASSESSMENT FOR GENERIC CONCERNS.

THE QA/QC GROUP PURSUED SEVEN PRINCIPAL CONCERNS WITHIN ONE ALLEGATION (AQ-50) ABOUT THE AS-BUILT INSPECTION PROGRAM USED BY TU ELECTRIC TO ADDRESS THE MCR'S INSPECTION AND ENFORCEMENT BULLETIN (IEB) 70-1A, WHICH INVOLVED VERIFICATION OF INPUT USED IN SEISMIC ANALYSES FOR AS-BUILT SAFETY-RELATED PIPING SYSTEMS. THE QA/QC GROUP CONDUCTED FIELD INSPECTIONS

PSR: CONDUIT SUPPORTS TRAIN A & B AND TRAIN C LARGER THAN 2 INCH DIAMETER  
PSR: CONDUIT SUPPORTS TRAIN C 2 INCH DIAMETER AND LESS  
PSR: CABLE TRAY AND CABLE TRAY HANGERS  
PSR: LARGE BORE PIPING AND PIPE SUPPORTS  
PSR: SMALL BORE PIPING AND PIPE SUPPORTS  
PSR: EQUIPMENT QUALIFICATION  
PSR: ELECTRICAL  
PSR: INSTRUMENT AND CONTROL  
PSR: HVAC  
PSR: CIVIL STRUCTURAL  
PSR: MECHANICAL



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TBT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TBT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

IN UNIT 1 IN AN EFFORT TO DETERMINE WHETHER TU ELECTRIC AS-BUILT INSPECTION PROGRAM FUNCTIONED IN PROPER RESPONSE TO APPLICABLE CRITERIA OF 10 CFR PART 59, APPENDIX B, AND THE REQUIREMENTS OF IEB 78-14, PERTINENT TO THE CONCERNS OF THE PRINCIPAL ALLEGATIONS, AND TO VERIFY WHETHER THE PLANT'S AS-BUILT CONDITION FOR PIPE SUPPORTS WAS CONFIRMED IN THE FINAL DESIGN. THE QA/QC GROUP CONCLUDED THAT THE ALLEGATIONS AND CONCERNS INVOLVING THE IEB 78-14 ISSUES WERE NOT SUBSTANTIATED.

AS A FOLLOW-UP TO THE IEB 78-14 ISSUE, THE QA/QC GROUP MADE AN INSPECTION OF 42 PIPE SUPPORTS AND 5 ELECTRICAL RACEMAY HANGERS AND CONDUIT SUPPORTS AND SELECTED ATTRIBUTES ON 92 ADDITIONAL PIPE SUPPORTS IN UNIT 1 AND FOUND NUMEROUS DEFICIENCIES. THESE INSPECTIONS WERE OF COMPLETED SYSTEMS OR COMPONENTS THAT HAD BEEN PREVIOUSLY INSPECTED AND ACCEPTED BY QC AS MEETING THE RESPECTIVE CONSTRUCTION AND INSTALLATION REQUIREMENTS. THE AREAS INSPECTED HAD BEEN CLEANED AND SECURED READY FOR FUEL LOAD.

ALTHOUGH THE AS-BUILT ASSESSMENT DID NOT SPECIFICALLY ASSOCIATE THE IDENTIFIED HARDWARE PROBLEMS WITH DESIGN OR DOCUMENT CONTROL DEFICIENCIES, SOME OF THE PROBLEMS IDENTIFIED COULD HAVE RESULTED FROM NOT USING THE LATEST DOCUMENT PACKAGES FOR CONSTRUCTION AND INSPECTION. THE QA/QC GROUP AS-BUILT VERIFICATION INSPECTION OF PIPE SUPPORTS AND ELECTRICAL RACEMAY HANGERS AND CONDUIT SUPPORTS FOUND SOME EXAMPLES OF FAULTY CONSTRUCTION BY CRAFT PERSONNEL, INSTALLED HARDWARE THAT DID NOT MATCH THE AS-BUILT DRAWINGS, AND INEFFECTIVE QC INSPECTIONS IN THE FIELD. ALSO, TWO OF THE QC INSPECTION PROCEDURES HAD SEVERAL PROBLEMS:

- (1) A LACK OF DEFINITION OF TOLERANCE RANGE FOR TWO INSPECTION CRITERIA; (2) THE TABLE FOR MINIMUM THREAD ENGAGEMENT OF BOLTS IN SHRUBBER ADAPTER PLATES WAS IN POTENTIAL CONFLICT WITH ASME CODE REQUIREMENTS; AND
- (3) INSPECTION REQUIREMENTS FOR CERTAIN ALTERNATE LOCKING DEVICES FOR THREADED FASTENERS AND FOR LOAD PINS ON WF SUPPORTS FOUND IN THE PLANT WERE NOT ADDRESSED.

THE OMISSION OF LOCKING DEVICES ON WF SUPPORT THREADED



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TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

FASTENERS IN UNIT 1 WAS NOT REPORTED ON AN MCR BY QC FOR DISPOSITIONING BY ENGINEERING AND WAS NOT REPORTED TO MRC UNDER 10 CFR PART 50.55(e). INSTEAD, TUCCO ENGINEERING STATED BY MEMORANDUM THAT EXISTING PAINT ON THE THREADS WAS ACCEPTABLE AS A LOCKING DEVICE. THE QUALITY ASSURANCE SPECIFICATION FOR PAINTING MF SUPPORTS WAS INADEQUATE IN THE AREA OF INSPECTION OF PAINTED THREADS, WHICH ACCORDING TO TU ELECTRIC SERVED AS LOCKING DEVICES ON MF SUPPORTS.

IN THE LIMITED INSPECTION BY THE QA/QC GROUP, THE FREQUENCY AND REPEATABILITY OF DEFICIENCIES RELATED TO PIPE SUPPORTS WERE MOST NOTABLE WITH RESPECT TO: EXCESSIVE FREE GAP AT THE SPHERICAL BEARINGS OF SCRUBBERS AND SMAY STRUTS, STRUT AND SCRUBBER FASTENERS NOT PROPERLY SECURED; AND INSUFFICIENT THREAD ENGAGEMENT OF BOLTS IN SHOCK ARRESTER FLATES. THE QA/QC GROUP ALSO FOUND A HIGH RATE OF REJECTABLE CHARACTERISTICS ON CLASS 1E ELECTRICAL RACEWAY BANGERS AND CONDUIT SUPPORTS.

THE QA/QC GROUP CONCLUDES THAT FOR PIPE SUPPORTS IN THOSE SYSTEMS AND COMPONENTS INSPECTED, ASME CODE REQUIREMENTS, QUALITY ACCEPTANCE STANDARDS, DESIGN DRAWINGS, AND SITE QC PROCEDURE WERE NOT FOLLOWED CONSISTENTLY. THE QA/QC GROUP ALSO CONCLUDES THAT THE QC INSPECTION OF CERTAIN ELECTRICAL RACEWAY BANGERS AND CONDUIT SUPPORTS WAS UNSATISFACTORY IN THAT VARIOUS UNACCEPTABLE FABRICATION AND INSTALLATION CHARACTERISTICS WERE NOT REPORTED. BASED ON THE QA/QC GROUP INSPECTION OF 42 PIPE SUPPORTS, 5 ELECTRICAL SUPPORTS AND SELECTED ATTRIBUTES ON 92 ADDITIONAL PIPE SUPPORTS, AND CONSIDERING THE RATE OF OCCURRENCE OF NONCONFORMANCE, THE QA/QC GROUP CONCLUDES THAT SOME TYPES OF DEFICIENCIES MAY BE GENERIC IN NATURE THROUGHOUT UNIT 1. DEFICIENCIES IN LOAD PIN LOCKING DEVICES FOR SMAY STRUTS AND SCRUBBERS, THREAD ENGAGEMENT OF BOLTS IN SCRUBBER ADAPTER PLATES, MILTI BOLT INSTALLATION, AND INADEQUATE LOCKING DEVICES ON MF SUPPORT THREADED FASTENERS EACH HAS POTENTIAL QUALITY AND SAFETY IMPLICATIONS. (SEE ATTACHMENT 2, CATEGORY 8, AQ 30.)

IN SUMMARY, THE QA/QC GROUP MADE A LIMITED INSPECTION

TUE/CPRT RESOLUTION DOCUMENTS

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

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TUE/CPRT RESOLUTION DOCUMENTS

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

OF INSTALLED QC-ACCEPTED PIPE SUPPORTS, ELECTRICAL RANGERS, AND CONDUIT SUPPORTS AND CONCLUDED, IN GENERAL, THAT THE FINAL QC INSPECTIONS WERE INADEQUATE BECAUSE THE FREQUENCY OF RECURRING DEFICIENCIES IDENTIFIED DURING THE INSPECTION WERE EXCESSIVE.

THE QA/QC GROUP CONCLUDES THAT THE MOST IMPORTANT QA CONCERN RESULTING FROM THE AS-BUILT INSPECTION EFFORT IS THAT QC DID NOT DETECT AND REPORT THESE OBVIOUS NONCONFORMING CONDITIONS.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11  
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ISSUE SOURCE      ISSUE      TRT ISSUE SUMMARY      TUE/CPRT RESOLUTION DOCUMENTS

\*\* 11 11.84A TRT-01 DESIGN PROCESS ISSUES, REF PG 0-9

SSER: 11  
ALLEG: TRT-01  
ITEM: 11.84A

TRT  
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APPENDIX 0  
(SEC. 2.2.1, PG 0-9)

TRT REVIEWED SIX ALLEGATIONS PERTAINING PRINCIPALLY TO DESIGN CHANGE ISSUES, THREE WERE SUBSTANTIATED (CERTIFIED DRAWINGS HAD ERRORS IN WELD SIZE AND LOCATION, CERTIFIED DRAWINGS WERE REVISED TO REFLECT AS-BUILT CONDITIONS, AND VENDOR DOCUMENTS WERE NOT CONTROLLED).

ELEVER SUPPORTS WERE INSPECTED BY THE QA/QC GROUP TO ESTABLISH WHETHER THE AS-BUILT CONDITIONS OF THESE PIPE SUPPORTS WERE FOUND TO HAVE WELD PROBLEMS (UNDERCUT AND OVERGRINDING OF WELDS), BOTH CONDITIONS REQUIRED ENGINEERING DISPOSITION TO ACCEPT-AS-IS, OR TO REPAIR, BUT NEITHER CONDITION WOULD HAVE REQUIRED A DRAWING CHANGE. THEREFORE, IN THIS SAMPLE NO DISAGREEMENT WAS IDENTIFIED BETWEEN THE CERTIFIED DRAWINGS AND THE AS-BUILT SUPPORTS.

TRT FOUND THAT CHANGES TO DESIGN DRAWINGS AND VENDOR-CERTIFIED DRAWINGS WERE MADE AFTER THE PIPE SUPPORTS HAD BEEN INSTALLED, AND THE SUPPORTS WERE MODIFIED AFTER THE DRAWINGS WERE VENDOR CERTIFIED. THESE ACTIONS ALTHOUGH THEY MAY HAVE APPEARED TO BE UNCONTROLLED DID NOT VIOLATE PROCEDURES OR RBC REQUIREMENTS AND THE ANALYSIS OF THESE CHANGES WAS IN ACCORDANCE WITH PROCEDURES.

TRT'S ASSESSMENT OF THE ITERATIVE DESIGN PROCESS RELATIVE TO PROCESSING DESIGN FIELD CHANGES DID NOT IDENTIFY ANY QA PROGRAMMATIC DEFICIENCIES THAT COULD CAUSE A BREAKDOWN IN THE DESIGN PROCESS. HOWEVER, AN IN-DEPTH ASSESSMENT OF THE OVERALL DESIGN PROCESS WILL BE INCLUDED IN A FUTURE SSER PERTAINING TO THE CYGNA INDEPENDENT ASSESSMENT PROGRAM (IAP). APPENDIX P OF SSER-11 PROVIDES A QUALITATIVE ASSESSMENT OF THE DESIGN PROCESS BASED ON THE FINDINGS OF THE ENTIRE TRT.

APPENDIX P  
(SEC. 4.1, PG P-27)

TUE PROCEDURE(S) ECE: 5.01-03, 5.09-01  
CAR 87-073  
TASK DESCRIPTION: CPZ-TD-SWEC-061  
SDAR CP-87-10

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TRT ISSUES -- SSERs 07, 08, 10 and 11  
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TRT/C/PRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

THE ASSESSMENT OF DESIGN PROCESS GENERALLY FOCUSED ON A REVIEW OF CONTROL OF CHANGES TO DESIGN DOCUMENTS, PRINCIPALLY VENDOR DESIGNS, INCORPORATION OF FIELD CHANGES IN THE DESIGN, AND DESIGN INTERACTION WITH PLANT ORGANIZATIONS FROM THE QA/QC POINT OF VIEW. TRT FINDS THAT THE DESIGN PROCESS FOR COMANCHE PEAK IS BASED ON PROCEDURES CONSISTENT WITH MRC REQUIREMENTS AND THAT THESE PROCEDURES WERE IMPLEMENTED. ACTUAL DESIGN PROCESS PERFORMANCE, HOWEVER, DISPLAYED SOME DEFICIENCIES. DESIGN CHANGES (DCAs AND CACs) WERE PERMITTED TO ACCUMULATE AGAINST BASIC DESIGN DOCUMENTS WITH NO PROGRAM REQUIREMENT FOR THEIR TIMELY INCORPORATION INTO THE DRAWINGS. MEASURES HAVE NOW BEEN ESTABLISHED TO QUICKEN THE INCORPORATION OF CHANGES AND TO LESSEN THE CONTROL PROBLEMS AND DELAYS PREVIOUSLY EXPERIENCED.

TRT FOUND EXAMPLES OF INEFFECTIVE INTERACTION AMONG THE ENGINEERING, CONSTRUCTION, AND QUALITY CONTROL GROUPS THAT WAS EVIDENT BECAUSE OF INCOMPLETE OR INADEQUATE WORK INSTRUCTIONS FOR CRAFT PERSONNEL. DESIGN ACCEPTANCE OF QUESTIONABLE CONSTRUCTION PRACTICES, INADEQUATE DESIGN ANALYSES OF FIELD CHANGES, AND INCOMPLETE SEISMIC ANALYSES. MCR DISPOSITIONS BY ENGINEERS WERE SOMETIMES POOR IN JUDGMENT AND LACKING IN ANALYSIS AND IN TECHNICAL DEPTH.

BECAUSE A BASIC PREMISE IN DESIGNING A PIPING SYSTEM INCLUDES THE FACT THAT SUPPORT DESIGNS WILL REFLECT THE ASSUMPTIONS MADE IN THE ANALYSIS OF THAT PIPING, THE FAILURE OF THE DESIGN PROCESS TO REQUIRE GIBBS & HILL TO REVIEW DESIGNS AND MODIFICATIONS OF PIPE SUPPORTS PRIOR TO FABRICATION AND INSTALLATION, IS OF CONCERN.

THERE WERE INSTANCES OF FAILURE TO CONTROL QUALITY STANDARDS IN DESIGN DOCUMENTATION (SEE SSERs 8 AND 10). THERE WAS ALSO FAILURE TO NOTIFY THE MRC OF CHANGES TO THE FSAR (SEE SSER 10).

WITHIN THE SCOPE OF TRT QA/QC GROUP'S ASSESSMENT OF THE DESIGN PROCESS, THE INTERACTIONS AMONG THE ENGINEERING, CONSTRUCTION AND QC GROUPS, AND PROGRAM

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

DEFICIENCIES PRESENTED, APPEAR TO BE THE ONLY DEFICIENT AREAS ADDRESSED BY TU ELECTRIC. A MORE COMPREHENSIVE ASSESSMENT OF THIS DESIGN PROCESS WILL BE INCLUDED IN FUTURE SER SUPPLEMENTS DEALING WITH THE NRC'S REVIEW OF FINDINGS FROM THE CYOMA INDEPENDENT ASSESSMENT PROGRAM.

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TRT ISSUES -- SSEE# 07, 08, 10 and 11

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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

\*\* 11 11.848  
SSEE: 11  
ALLEG: TRT-P2  
ITDH: 11.848

TRT-P2  
DOCUMENT CONTROL (REF PG P-27)

TRT  
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THE TRT ASSESSMENT OF THE DOCUMENT CONTROL FUNCTION FOR THE PERIOD FOLLOWING JULY 1984 INDICATES THAT THE PREPARATION, ISSUANCE AND CHANGES TO DOCUMENTS THAT SPECIFY QUALITY REQUIREMENTS OR PRESCRIBE ACTIVITIES AFFECTING QUALITY ARE ADEQUATELY CONTROLLED. DOCUMENTATION PACKAGES REVIEWED AT THE POINT OF ISSUE, AND IN THE FIELD WHERE PRESCRIBED ACTIVITIES WERE BEING PERFORMED, WERE FOUND TO BE COMPLETE AND CURRENT. FURTHER, A SAMPLE OF SAFETY-RELATED QUALITY RECORDS STORED IN THE PERMANENT PLANT RECORDS VAULT (PPRV) WAS REVIEWED AND FOUND TO BE ACCEPTABLE. INCLUDED IN THE DOCUMENTATION PACKAGES WERE COMPLETED RECORDS OF PIPING, PIPING SUPPORTS (BARGERS), ASSEMBLED AND/OR INSTALLED COMPONENTS, FABRICATION AND INSPECTION/TESTING DATA, INCLUDING WALKDOWN INSPECTION CHECK LISTS AND THE APPLICABLE N-5 DATA REPORTS. IN-PROCESS AND FINAL INSPECTION AND ACCEPTANCES FOR COMPLETED RECORD PACKAGES APPEARED TO HAVE BEEN PERFORMED TO THE LATEST REVISIONS OF DRAWINGS AND SPECIFICATIONS.

ISAP VII.A.3  
CER PART IV SEC. 3.6.3  
TUE AUDIT ATP 87-313

HOWEVER, THE HISTORY OF RECURRING DOCUMENT CONTROL DEFICIENCIES PRIOR TO JULY 1984 RAISES CONCERNS ABOUT CERTAIN ASPECTS OF THE QUALITY OF CONSTRUCTION. FOR EXAMPLE, THE TRT OBSERVED DEFICIENCIES IN COATING INSPECTION REPORTS WHICH INCLUDED: INADEQUATE DESCRIPTION OR LOCATION OF AREAS OR ITEMS COATED; IMPROPER CHANGES AND CORRECTIONS; LACK OF SIGNATURES OR ACCEPTANCE FOR IMPROCESS AND FINAL INSPECTIONS; AND MISSING DATES AND TIMES. THESE DEFICIENCIES WERE SIGNIFICANT ENOUGH TO RENDER THE INSPECTION REPORTS UNACCEPTABLE AS QUALITY RECORDS AND INADEQUATE TO PROVIDE DOCUMENTATION OF MATERIAL TRACEABILITY. ONE SPECIFIC TRACEABILITY AND RECORDS PROBLEM WAS THAT PAINT MIXING SLIPS WERE NOT RETAINED AS PERMANENT RECORDS, BUT WERE DISCARDED AFTER THE INSPECTOR IN THE COATING APPLICATIONS AREA TRANSCRIBED THE INFORMATION ONTO HIS OWN REPORT. THUS, THE ORIGINAL RECORD OF THE MIXING INSPECTION, INCLUDING INSPECTION ACCEPTANCE, WAS LOST. IN PROCEDURAL CONTROL, THE TRT MECHANICAL

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TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

AND PIPING GROUP OBSERVED THAT UNCONTROLLED AND UNAUTHORIZED PROCEDURES WERE USED TO PERFORM COLD-SPRINGING (REALIGN PIPING) DURING ITS INSTALLATION.

WITH RESPECT TO DRAWING CONTROL PRIOR TO 1984, THE TRT FOUND DEFICIENCIES THAT INCLUDED: DISTRIBUTION OF INCOMPLETE OR OBSOLETE DRAWING PACKAGES TO THE CRAFT AND QC PERSONNEL; INADEQUATE DRAWING CONTROL; HIGH DOC SATELLITE ERROR RATES; AND PROCEDURAL NON-COMPLIANCE. THE TRT QA/QC GROUP CONCLUDES THAT ALTHOUGH MANY OF THE DOCUMENT CONTROL INADEQUACIES HAVE BEEN CORRECTED, THE IMPLICATIONS OF PAST INADEQUACIES ON CONSTRUCTION AND INSPECTION HAVE POTENTIAL GENERIC SIGNIFICANCE WHICH HAS NOT YET BEEN FULLY ANALYZED BY TU ELECTRIC.

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.84C SSER: 11 ALLEG: TRT-P3 ITEM: 11.84C	TRT-P3 TRAINING AND QUALIFICATIONS (REF PG P-28)	TRT --- THE TRT QA/QC GROUP FOUND A PATTERN OF INADEQUACIES WITH THE TRAINING, CERTIFICATION AND QUALIFICATION PROGRAM AT CPSES, BECAUSE OF THE MANY DEFICIENCIES IDENTIFIED. THESE PROBLEMS CAN BE DIRECTLY TRACEABLE TO TU ELECTRIC'S AND BAR'S "MINIMAL REQUIREMENT" TRAINING, CERTIFICATION, AND QUALIFICATION PROGRAM; THE LACK OF OR FAILURE TO FOLLOW PROCEDURES AND GUIDELINES; AND A LACK OF PROGRAMMATIC CONTROLS TO ASSURE THAT THE PROGRAM ACHIEVED AND MAINTAINED REQUIREMENTS AS SET FORTH BY 10 CFR PART 50, APPENDIX B.  THE TRT ELECTRICAL AND INSTRUMENTATION, PROTECTIVE COATINGS, AND CIVIL AND STRUCTURAL GROUPS ALSO ASSESSED ALLEGATIONS AND CONCERNS ABOUT ELECTRICAL INSPECTORS, COATINGS INSPECTORS, AND CONCRETE INSPECTORS. THESE INSPECTORS WERE ALL TRAINED, CERTIFIED, AND QUALIFIED UNDER THE SAME PROGRAM (NON-ASME) AS THE INSPECTION PERSONNEL REVIEWED BY THE QA/QC GROUP. EACH TRT GROUP FOUND EXAMPLES OF THE SAME KINDS OF DEFICIENCIES: NO VERIFICATION OF EDUCATION OR WORK EXPERIENCE; AN IDENTICAL CERTIFICATION TEST TAKEN AFTER THE EXAMINEE FAILED THE FIRST ONE; NO GUIDELINES PROVIDED FOR THE USE OF WAIVER FOR OJT; NO TIME LIMIT ON HOW MANY TIMES AN EXAMINATION COULD BE RETAKEN; AND INSPECTORS WITH QUESTIONABLE QUALIFICATIONS.  THERE WERE ALSO MANY PROBLEMS WITH THE CERTIFICATION TESTING PROGRAM FOR THE NON-ASME INSPECTORS. THERE WAS NO TIME LIMIT BETWEEN A FAILED TEST AND A RETEST, THERE WERE DIFFERENT SCORING METHODS TO GRADE THE ORIGINAL TEST AND THE RETEST, THERE WERE NO GUIDELINES ON HOW A TEST QUESTION SHOULD BE DISQUALIFIED, AND THERE WERE NO DETAILS ON HOW THE ADMINISTRATION OF TESTS SHOULD BE MONITORED.  THE TRT ALSO FOUND THAT MANY CRAFTSMEN THAT TRANSFERRED INTO QC INSPECTION HAD NO PRIOR BACKGROUND OR EXPERIENCE IN INSPECTION. THIS WAS ESPECIALLY TRUE	ISAP I.D.1; I.D.2; I.D.3 CAR(s) 90X, 111, 87-013, 87-042, 87-045, 87-067 SDAR(s) CP-85-54, CP-87-32, CP-86-63, CP-86-48



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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

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TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

IN THE COATINGS AREA WHEN PAINTERS WERE MADE "INSTANT" QC PAINT INSPECTORS.

B&R HAD PROCEDURES FOR ASME PERSONNEL TRAINING AND CERTIFICATION THAT MINIMALLY MET THE REQUIREMENTS OF ANSI #45.2.8 AND REGULATORY GUIDE 1.58, BUT IN PRACTICE THESE GUIDELINES WERE NOT ALWAYS FOLLOWED. ALTHOUGH TU ELECTRIC AND B&R HAD COMMITTED TO FOLLOW THE REQUIREMENTS SET FORTH IN ANSI #45.2.8 AND REGULATORY GUIDE 1.58, BOTH CHOSE TO FOLLOW THE "EXCEPTION TO THE RULE" AND USED "OTHER FACTORS" AS THE NORMAL METHOD OF QUALIFICATION. MORE THAN 80 PERCENT OF THE INSPECTION PERSONNEL (BOTH ASME AND NON-ASME) WERE QUALIFIED UNDER THE "EXCEPTION TO THE RULE" FACTOR.

THE TRT QA/QC GROUP ALSO FOUND THAT SOME QA AUDITORS LACKED EXPERIENCE, WERE INADEQUATELY TRAINED, OR HAD QUESTIONABLE QUALIFICATIONS.

THE TRT QA/QC GROUP CONCLUDES THAT DEFICIENCIES IN PROCEDUR REQUIREMENTS AND GUIDELINES IN TU ELECTRIC'S TRAINING, CERTIFICATION, AND QUALIFICATION PROGRAMS HAVE POTENTIAL QUALITY SIGNIFICANCE. FURTHER EVALUATION BY TU ELECTRIC IS REQUIRED IN ORDER TO DETERMINE THE IMPACT OF THE DEFICIENCIES ON THE SAFETY OF THE PROJECT.

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TRT ISSUES -- SSER# 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

CER PART IV SECTION 3.2, 3.5, 3.7, 3.9, 3.11

\*\* 11 11.84D TRT-PA  
SSER: 11 CONSTRUCTION AND TESTING (REF PG  
ALLEG: TRT-PA P-29)  
ITEM: 11.84D

TRT  
FOLLOWING IS A LIST OF THESE RECURRING PRACTICES FOR WHICH CONSTRUCTION CRAFT PERSONNEL WAS EITHER A PRIMARY OR CONTRIBUTING FACTOR AND HAD A PLANT-WIDE IMPACT.

(1) CRAFT PERSONNEL FAILED TO FOLLOW DESIGN DOCUMENTS OR INSTALLATION PROCEDURES.

(2) UNAUTHORIZED WORK WAS PERFORMED IN ABSENCE OF PROCEDURES.

(3) HOUSEKEEPING PROCEDURES WERE NOT FOLLOWED.

(4) USE AND RETURN OF EQUIPMENT, TOOLS, AND MATERIALS WERE NOT PER REQUIREMENTS.

(5) THERE WAS LOSS, DAMAGE, AND INTERCHANGE OF VALVE PARTS.

(6) THERE WAS IMPROPER TRANSFER OF HEAT NUMBERS ONTO SCRAP METAL WHICH WAS USED IN A PIPE SUPPORT.

(7) EQUIPMENT REPAIRS AND REMOVAL WERE PERFORMED WITHOUT PROPER DOCUMENTATION.

IN CONCLUSION, THESE TYPES OF IMPROPER WORKMANSHIP BY CRAFT PERSONNEL, COUPLED WITH LACK OF PROPER SUPERVISION OF CRAFT PERSONNEL DURING CONSTRUCTION, HAVE POTENTIAL FOR SIGNIFICANT QUALITY AND SAFETY IMPACT ON CRITICAL PLANT SYSTEMS AND STRUCTURES.

THERE WERE ALLEGATIONS OR CONCERNS INVOLVING CONSTRUCTION PRACTICE THAT WERE NEITHER SUBSTANTIATED NOR REFUTED. THESE WERE NOT INCLUDED IN THE ABOVE CONCLUSION, BUT ARE UNRESOLVED QA/QC ISSUES.

THERE WERE ONLY TWO ISSUES CONSIDERED WHICH INVOLVED THE AREA OF TESTING. BOTH OF THESE ENTRIES INDICATED THAT THE DEFICIENT PRACTICE WAS NOT FREQUENT ENOUGH AS TO IMPLY A GENERIC PROBLEM. ONE CONCERN INVOLVED

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ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

SEVERAL HOT FUNCTIONAL TEST OBJECTIVES THAT WERE NOT MET. THE OTHER DEFICIENT PRACTICE WAS THAT TU ELECTRIC'S METHOD FOR CALCULATING LEAK RATE WAS NOT CONSISTENT WITH TU ELECTRIC'S FSAR COMMITMENT.

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TRT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPRT RESOLUTION DOCUMENTS
** 11 11.84E SSER: 11 ALLEG: TRT-P5 ITEM: 11.84E	TRT-P5 NONCONFORMANCES AND CORRECTIVE ACTIONS (REF PG P-30)	TRT --- APPENDIX O (SEC. 3.2.8, PG 0-14) OF THE 20 ALLEGATIONS AND CONCERNS RELATING TO NONCONFORMANCE REPORT (NCR) ISSUES; FOUR ALLEGATIONS AND CONCERNS WERE SUBSTANTIATED, AS FOLLOWS: ALLEGATIONS AQ-24; HOWEVER, THE ACTIVITY HAS BEEN CORRECTED; ALLEGATION AQ-87; HOWEVER, THE ACTIVITY WAS DONE IN ACCORDANCE WITH PROCEDURES. ALLEGATION AQ-114, AND ALLEGATION AQ-124, AND THESE MAY HAVE GENERIC IMPLICATIONS PERTAINING TO A PARTIAL QA/QC BREAKDOWN. TRT FOUND THAT DURING THE EARLY YEARS OF THE CPSES PROJECT, QC INSPECTORS KEPT LOGS OF ALL JOBS THAT THEY INSPECTED. ADDITIONALLY, A PERSONAL LOG WAS DISCOVERED THAT NOTED SOME ITEMS, IN THE EARLY YEARS, WHICH SHOULD HAVE BEEN DOCUMENTED IN INSPECTION REPORTS (IRs) OR NCRs; BUT BECAUSE OF THE LIMITED INFORMATION IN THE LOG, SUCH DOCUMENTATION COULD NOT BE VERIFIED. ALTHOUGH ONLY ONE LOG OF THIS TYPE WAS FOUND, THIS ITEM MAY HAVE GENERIC IMPLICATIONS AS EVALUATED BY THE TRT. THE TRT ALSO FOUND THAT IN THE PAST, VOIDED NCRs HAD BEEN DESTROYED. ALTHOUGH SOME PROCEDURAL CLARIFICATION IS NEEDED, THE PRACTICE HAS BEEN CORRECTED. WITH RESPECT TO REVIEWS AND CHANGES TO N-5 (ASME) DOCUMENTS IN THE PERMANENT RECORDS VAULT, THE TRT FOUND THAT SUCH REVIEWS AND CHANGES TO OCCUR, BUT ARE CONDUCTED ACCORDING TO PROCEDURE. THE TRT ALSO FOUND A LACK OF GUIDANCE IN REGARD TO THE LEVEL OF DEFICIENCY REQUIRED TO WRITE AN NCR. THE TRT ALSO FOUND INSTANCES OF IMPROPER DISPOSITIONING OF NCRs.  THE TRT ALSO FOUND THAT ALTHOUGH SPECIFIC NONCONFORMANCE SYSTEM IN RELATION TO CORRECTLY DOCUMENTING PROBLEMS, QA REVIEW OF DOCUMENTATION AND ENTRIES INTO THE CORRECTIVE ACTION SYSTEM IN ORDER TO PREVENT RECURRENCE.  APPENDIX P (SEC. 4.5, PG 30 AND 31): THE TRT IDENTIFIED DEFICIENCIES DURING ITS OVERALL REVIEW OF THE NONCONFORMANCE SYSTEM. MOST OF THE	ISAP(s) VII.A.2 CAR(s) 82, 108, 110, 87-003, 87-067, 87-073 TASK DESCRIPTION: CPE-TD-SWEC-034 SDAR CP 86-48, CP 86-63, CP 85-27

ISSUE SOURCE

ISSUE

TRT ISSUE SUMMARY

DEFICIENCIES RELATED TO IMPLEMENTATION OF THE MCR SYSTEM IN SPECIFIC AREAS. FOR EXAMPLE, COATINGS MCRs THAT WERE DISPOSITIONED "USE-AS-IS" LACKED SUFFICIENT ENGINEERING JUSTIFICATION, AND SOME INSTANCES WERE NOTED IN THE MECHANICAL AND PIPING AREA IN WHICH MCR CORRECTIVE ACTION WAS NOT CONSIDERED TO BE SATISFACTORY. THERE WAS ALSO AN INSTANCE OF THE USE OF PIPES OF NONCONFORMING PIPING WHILE ON MCR HOLD. IMPROPER DISPOSITION OF THE MCR ALLOWED THE INSTALLATION OF THE PIPE.

THE TRT ALSO NOTED A GENERIC DEFICIENCY IN THE CORRECTIVE ACTION SYSTEM. SOME OF THE SPECIFIC DEFICIENCIES NOTED ARE:

a. THE MCR CORRECTIVE ACTION SYSTEM WAS GENERALLY BYPASSED, AS SHOWN IN THE FOLLOWING EXAMPLES:

(1) THERE WERE NO DEFINITIVE INSTRUCTIONS TO DESCRIBE THE TYPES OF PROBLEMS THAT REQUIRED CORRECTIVE ACTION. MINIMAL PROCEDURAL INSTRUCTIONS RESULTED IN CORRECTIVE ACTION DECISIONS FREQUENTLY BEING LEFT TO THE JUDGMENT OF THE QA MANAGER.

(2) SINCE JUNE 1983, MCR HAS ISSUED NO CORRECTIVE ACTION REQUESTS (CARs), AND WAS SUBSTITUTING MEMOS AND LETTERS OF CONCERN FOR THIS FUNCTION. THIS SHORTCUT HAD BECOME A REGULAR METHOD OF OPERATION AND APPEARED TO BYPASS THE CAR SYSTEM.

b. THE TU ELECTRIC CORRECTIVE ACTION SYSTEM WAS POORLY STRUCTURED AND INEFFECTIVE IN THAT:

(1) CONTROLLING PROCEDURES WERE BRIEF AND GENERAL.

(2) THERE WAS NO TRANSLATION OF FSAR REQUIREMENTS ON TRENDS AND NO DETAILS ON HOW TRENDS ANALYSES WERE TO BE ACCOMPLISHED.

(3) QUARTERLY REPORTS WERE NOT ISSUED IN A TIMELY MANNER.

(4) THE METHOD OF CATEGORIZING ITs AND MCRs BY BUILDING DID NOT ASSURE MEANINGFUL TREND ANALYSIS.

(5) A 108a CAR REPORT IDENTIFIED THREE ITEMS THAT APPEARED TO REQUIRE ACTION. HOWEVER, NONE HAD BEEN TAKEN.

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TRT ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

(6) CAR 028 WAS USED AS A VEHICLE FOR A SPECIFIC DISPOSITION RATHER THAN FOR GENERIC ACTION, AS INTENDED BY THE CAR SYSTEM.

THE TRT ALSO NOTED THAT APPROXIMATELY 40 DIFFERENT FORMS AND REPORTS (OTHER THAN MCRs) WERE USED FOR RECORDING DIFFICIENCIES. MANY OF THESE FORMS AND REPORTS DID NOT APPEAR TO PROVIDE INFORMATION ENTRY INTO THE CORRECTIVE ACTION SYSTEM TO PREVENT PROBLEM RECURRENCE.

IN CONCLUSION, THE TRT FOUND DIFFICIENCIES IN MCR IMPLEMENTATION; AND IN SOME CASES MCR CORRECTIVE ACTIONS WAS UNSATISFACTORY. THE TRT FOUND BAR AND TU ELECTRIC CORRECTIVE SYSTEMS POORLY STRUCTURED, IREFFECTIVE, AND POORLY APPLIED.

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TUE/CPRT RESOLUTION DOCUMENTS

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ISSUE SOURCE

TRT  
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OF PARTICULAR CONCERN WERE THOSE ITEMS FOR WHICH QC INSPECTION WAS INDICATED AS BEING PRIMARILY RESPONSIBLE AND HAVING A GENERIC IMPACT LEVEL OF A (FREQUENT OCCURRENCES THAT HAVE PLANT-WIDE IMPACT). THERE ARE EIGHT ITEMS OF LESSER CONCERN WERE THE 27 ADDITIONAL ITEMS THAT INDICATED QC INSPECTION AS A CONTRIBUTING FACTOR 1-4 LEVEL 4 ITEMS, OR AS EITHER A PRIMARY OR CONTRIBUTING FACTOR FOR LEVEL 3 ITEMS (FREQUENT OCCURRENCES, BUT APPARENTLY CONFINED TO A PARTICULAR AREA OR ITEM). THE ABOVE 35 ITEMS INDICATED TO THE TRT THAT QC INSPECTION WAS PARTICULARLY DEFICIENT IN THE AREAS OF COATINGS AND MECHANICAL HARDWARE, AND THAT QC INSPECTORS MADE SIGNIFICANT ERRORS IN A NUMBER OF ADDITIONAL SPECIFIC ITEMS. FURTHER, QC INSPECTION PROBLEMS ARE GENERALLY ACCOMPANIED BY AND ASSOCIATED WITH CONSTRUCTION/TESTING PROBLEMS (SEE ITEM 11.840).

QC INSPECTORS IN MANY INSTANCES FAILED TO FOLLOW DESIGN DOCUMENTS AND THE QUALITY PROCEDURES FOR INSPECTION. OF CONCERN IS THE POTENTIAL FOR CRITICAL INSTALLATIONS TO BE INADEQUATELY CONSTRUCTED AND IMPROPERLY REPRESENTED ON DOCUMENTS IN THE PLANT PERMANENT RECORDS VAULT AS WELL AS INACCURATE ACCOUNTING OF SAFETY-RELATED SYSTEMS AND STRUCTURES FOR INPUT USED IN THE STRESS ANALYSIS BY THE ENGINEERING GROUP. IN CONCLUSION, THE OAC GROUP CONSIDERS THE SITE QC INSPECTION PROGRAM TO BE LESS THAN FULLY EFFECTIVE IN MONITORING, DETECTING, AND REPORTING DEFICIENCIES THAT HAVE OR COULD HAVE A SIGNIFICANT SAFETY IMPACT ON THE PLANT.

\*\* 11 11.84F TRT-P6  
SSER: 11 QC INSPECTION (REF PG P-31)

ALLEG: TRT-P6  
ITEM: 11.84F

CPRT-06, 50, 63, 65X, 66X, 67X, 68X, 69X, 70X, 71X, 72X, 77X, 80X, 86, 93X, 96X, 111, 87-002, 87-005, 87-006, 87-007, 87-009, 87-011, 87-012, 87-013, 87-014, 87-015, 87-016, 87-017, 87-018, 87-022, 87-029, 87-030, 87-031, 87-033, 87-034, 87-035, 87-039, 87-041, 87-042, 87-043, 87-045, 87-051, 87-056, 87-067, 87-068

SOAR(a) CP-85-27, C/-87-71, CP-85-54, CP-87-87, CP-86-38.  
CP-87-113, CP-86-12, CP-85-39, CP-87-81, CP-87-70, CP-87-63,  
CP-87-78, CP-86-65, CP-86-50, CP-87-56, CP-87-23, CP-86-04,  
CP-86-59, CP-87-75

DR C-87-4331  
STIR CPRT-5-001; CPRT-S-010; CPRT-E-006

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSER# 07, 08, 10 and 11

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ISSUE SOURCE	ISSUE	TRT ISSUE SUMMARY	TUE/CPST RESOLUT.ON DOCUMENTS
** 11 11.84G SSER: 11 ALLEG: TRT-P7 ITEM: 11.84G	TRT-P7 AUDITS AND REPORTING (REF PG P-31)	TRT --- APPENDIX P -- (SEC 4.7, PG P-31 Y00U P-34): IN THE TRT'S OVERALL ASSESSMENT OF TU ELECTRIC'S AUDIT PROGRAM, EMPHASIS WAS PLACED ON EVALUATING THE ADMINISTRATION OF THE AUDIT PROGRAM, MANAGEMENT'S ACTION TO REVIEW THE STATUS AND ADEQUACY OF THE QA PROGRAM, AND FOLLOWUP ON FINDINGS IDENTIFIED BY INTERNAL (TU/EC) AND EXTERNAL AUDIT TEAMS (NRC AND CONSULTANTS).  TU ELECTRIC'S AUDIT PROGRAM CONSISTED OF INTERNAL AND EXTERNAL AUDITS OF DESIGN, CONSTRUCTION, ENGINEERING, AND PROCUREMENT ACTIVITIES. TU ELECTRIC ASSUMED THE RESPONSIBILITY FOR EXTERNAL AUDITS OF VENDORS.  REGION IV FOUND THAT TU ELECTRIC'S AUDIT PROCEDURES DID NOT COMPLY WITH NRC REQUIREMENTS, AND THAT THE PROGRAM WAS NOT IMPLEMENTED IN ACCORDANCE WITH PROCEDURES. THE LACK OF AN ESTABLISHED AUDIT PROGRAM WAS ALSO SUBSTANTIATED BY REGION IV. FOR EXAMPLE, REGION IV REPORT NO. 50-445/84-32 CITED TU ELECTRIC FOR FAILURE TO ESTABLISH AND IMPLEMENT A COMPREHENSIVE SYSTEM OF PLANNED AND PERIODIC AUDITS. NON-COMPLIANCE IDENTIFIED WERE: ANNUAL AUDITS WERE NOT ADEQUATELY ADDRESSED BY AUDIT IMPLEMENTATION PROCEDURES; PLANNING AND STAFFING TO PERFORM 1983 AUDITS WERE INADEQUATE; THE WESTINGHOUSE SITE ORGANIZATION PERFORMING NUCLEAR STEAM SUPPLY SYSTEM (NSSS) ENGINEERING SERVICES WAS NOT AUDITED BY TU ELECTRIC FROM 1977 THROUGH 1981; AND AUDITS OF VENDORS THAT MANUFACTURE OR FABRICATE PARTS, COMPONENTS, AND EQUIPMENT FOR SAFETY-RELATED SYSTEMS WERE NOT CONDUCTED IN COMPLIANCE WITH ANNUAL OR OTHER APPLICABLE REQUIREMENTS DATING BACK TO AUGUST 1978. ASSESSMENTS BY THE MISCELLANEOUS AND MECHANICAL AND PIPING GROUPS CONCURRED WITH THE QA/QC GROUP THAT THE AUDIT FREQUENCY OF VENDORS DID NOT COMPLY WITH ANSI NS4.2.12 REQUIREMENTS.  REVIEW OF THE PAST ADMINISTRATION OF THE AUDIT PROGRAM DISCLOSED THAT DURING 1981 AND 1982, THE HEIGHT OF	ISAP(a) VII.A.4; VII.A.5; VII.A.6 CAR(a) 86-0050, 86-0060, 86-0070 TER PART IV SEC 3.18



COPANCRE PEAK STEAM ELECTRIC STATION (CPSES)

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TRY ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

ISSUE

TRY ISSUE SUMMARY

TUE/CPRT RESOLUTION DOCUMENTS

CONSTRUCTION, THE AUDIT STAFF CONSISTED OF FOUR AUDITORS. FROM 1982 TO 1984, THE AUDIT STAFF HAS INCREASED FROM 4 TO 12. ALSO, ON OCCASIONS, INDIVIDUALS PARTICIPATING ON THE AUDIT TEAMS WERE NOT QA AUDITORS. AS SUCH, A POTENTIAL EXISTED TO COMPROMISE THEIR INDEPENDENCE. THE TRY REVIEWED THE TECHNICAL BACKGROUND, EXPERIENCE, AND TRAINING OF AUDITORS, AS WELL AS THE QUALITY OF AUDIT REPORTS. THE TRY DETERMINED AUDITOR STAFFING AND QUALIFICATIONS TO BE QUESTIONABLE, WHICH RENDERED THE AUDIT RESULTS FOR 1981 THROUGH 1983 POTENTIALLY EFFECTIVE.

THE TRY AND REGION IV REVIEWED THE SCOPE OF THE QA PROGRAM AUDITED DURING 1983. OF APPROXIMATELY 650 SAFETY-RELATED PROCEDURES, 185 (25% OVERALL) WERE AUDITED. IN LOOKING AT QUALITY PROCEDURES, TU ELECTRIC AUDITED 248 TO TUOCO'S IMPLEMENTING PROCEDURES AND 382 TO BROWNS A BROTHER'S PROCEDURES FOR A COMPOSITE 328 AUDIT RATE. ALTHOUGH AUDITS ON A SAMPLING BASIS ARE ACCEPTABLE, THERE WAS NO EVIDENCE THAT ALL SAFETY-RELATED AREAS WERE AUDITED. THE AUDIT'S DID NOT ENCOMPASS ALL ASPECTS OF THE QA PROGRAM IN ORDER TO DETERMINE EFFECTIVENESS.

WITH RESPECT TO AUDIT CORRECTIVE ACTION FOLLOWUP, IT WAS LEARNED THAT TU ELECTRIC QA HAD NOT BEEN VERIFYING THAT CORRECTIVE ACTION ON PREVIOUS AUDIT FINDINGS WAS ACCOMPLISHED. FOR EXAMPLE, AUDIT TCP-111, INITIATED TO VERIFY CORRECTIVE ACTIONS ON PREVIOUS AUDIT FINDINGS, WAS STARTED PRIOR TO THE TRY'S REVIEW. TU ELECTRIC EMPHASIZED THAT TCP-111 BE CONSIDERED A "PUNCH LIST OF COMPLETION TASKS" TO VERIFY THAT CORRECTIVE ACTION HAD BEEN IMPLEMENTED AND NOT AN ATTEMPT TO REWRITE OR CHANGE PREVIOUS AUDIT FINDINGS. ANOTHER SPECIFIC EXAMPLE OF INEFFECTIVE FOLLOWUP ACTION WAS FOUND THAT PERTAINED TO A DEFICIENCY IDENTIFIED IN AUDIT TCP-23, PERFORMED IN SEPTEMBER 1981. AUDIT TCP-88, CONDUCTED IN MARCH 1983, ATTEMPTED TO VERIFY CORRECTIVE ACTION OF TCP-23'S AUDIT FINDING, BUT LOGS THAT WOULD DOCUMENT THE CORRECTIVE ACTION HAD BEEN DESTROYED. A NEW DEFICIENCY WAS WRITTEN AT THAT TIME AND THE RESPONSE WAS ACCEPTED, BUT THE CORRECTIVE ACTION IMPLEMENTATION IS STILL UNVERIFIED.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSFS)

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TRT ISSUES -- SSES# 07, 08, 10 and 11

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IN CORRELATING NONCOMFORMANCE REPORTING TO THE AUDIT FINDING/CORRECTIVE ACTION REPORTING TRACKING SYSTEM, THE TRT NOTED THAT DURING 1983, 18 NCRs IDENTIFIED THE NEED TO RETRAIN CONSTRUCTION PERSONNEL IN THE CONTENT AND REQUIREMENTS OF QA PROCEDURES. THE TRT FOUND THAT TO ELECTRIC CORRECTIVE ACTION REQUEST CAR-024, WHICH DEALT WITH INADEQUATE CONSTRUCTION TRAINING A-3 RECORDS, WAS OPEN FOR 12 MONTHS. AGET CAR-024 WAS CLOSED. FIVE OTHER CARs IDENTIFIED INADEQUATE TRAINING OF CONSTRUCTION PERSONNEL. THE TU ELECTRIC CONSTRUCTION, START-UP/TURNOVER SURVEILLANCE GROUP IDENTIFIED THE ABOVE CONDITIONS IN CAR-009, DATED APRIL 9, 1984, WHICH HAD NOT BEEN CLOSED AT THE TIME OF THE TRT INSPECTION. THIS FURTHER SUPPORTS THE TRT FINDING OF INADEQUATE FOLLOWUP AND CORRECTIVE ACTION OF

THE TRT FOUND THAT TU ELECTRIC MANAGEMENT HAD FAILED TO PERIODICALLY REVIEW THE STATUS AND ADEQUACY OF THEIR QA PROGRAM. THIS WAS CONFIRMED BY REGION IV (IR 50-445/64-32). TU ELECTRIC REPRESENTATIVES STATED THAT THERE HAVE BEEN NO REGULAR ASSESSMENTS OR REVIEWS OF THE ADEQUACY OF THE TOTAL QA PROGRAM BY UPPER MANAGEMENT, AS REQUIRED IN CRITERION II OF 10 CFR 50, APPENDIX B, AND AS COMMITTED IN THE PSAR.

WITH RESPECT TO FOLLOW-UP CORRECTIVE ACTION FOR PREVIOUS FINDINGS CITED AGAINST THE AUDIT PROGRAM BY WRC AND TU ELECTRIC CONSULTANT AUDIT/INSPECTION TEAMS, THE TRT FOUND TU ELECTRIC'S CORRECTIVE ACTION FOLLOWUP TO BE NOT FULLY EFFECTIVE. THE FRED LOBBIN REPORT (A TU ELECTRIC CONSULTANT), DATED FEBRUARY 1982, IDENTIFIED FOUR MAJOR FINDINGS: (1) LEVEL OF EXPERIENCE WITHIN THE TUOCO QA ORGANIZATION IS LOW; (2) COMMERCIAL NUCLEAR PLANT DESIGN AND CONSTRUCTION QA EXPERIENCE; (3) STAFFING FOR THE AUDIT AND SURVEILLANCE FUNCTIONS IS INADEQUATE; (4) THE NUMBER AND SCOPE OF DESIGN AND CONSTRUCTION AUDITS CONDUCTED BY TUOCO QA TO DATE HAD BEEN LIMITED; AND (5) QA MANAGEMENT HAS NOT DEFINED CLEARLY THE OBJECTIVES FOR THE SURVEILLANCE PROGRAM RESULTING IN A PROGRAM WHICH, IN THE AUTHOR'S OPINION, IS PRESENTLY INEFFECTIVE. TO DATE, FINDINGS (2), (3) AND (4) HAVE NOT BEEN ADEQUATELY ADDRESSED BY TU ELECTRIC. (REGION IV REPORT

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

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TUE/CPRT RESOLUTION DOCUMENTS

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ISSUE SOURCE

NO. 50-445/84-32.).

FOLLOWING THE LOBBIN REPORT, THE NRC PERFORMED A CAT INSPECTION (IR 445/83-18; 446/83-12, DATED APRIL 11, 1983) AND INCLUDED A REVIEW OF 18 AUDITS (CONDUCTED BETWEEN 1978 AND EARLY 1983), AUDITOR QUALIFICATIONS, AUDIT PLANNING AND SCHEDULING, AUDIT REPORTING AND FOLLOWUP, AND AUDIT PROGRAM EFFECTIVENESS. THE REPORT CONCLUDED THAT WEAKNESSES EXISTED IN THE ESTABLISHED QA AUDIT PROGRAM WHICH INCLUDED THE SCHEDULING AND FREQUENCY OF AUDITS, THE LACK OF EFFECTIVE MONITORING OF THE CONSTRUCTION PROGRAM, AND THE LACK OF EFFECTIVE RESOLUTION OF CERTAIN FINDINGS. THE INSPECTION ALSO INDICATED THAT THE QA PROGRAM SHOULD HAVE BEEN MORE EFFECTIVE.

DURING THE TRT'S EVALUATION OF ALLEGATIONS AND CONCERNS, IT WAS OBSERVED THAT THE AUDIT FUNCTION DID NOT ALWAYS IDENTIFY QA PROGRAM BREAKDOWNS, OR IF REPORTED, EFFECTIVE CORRECTIVE ACTION WAS NOT INSTITUTED TO PREVENT RECURRENCE. TYPICAL EXAMPLES WERE: (1) UNTIMELY REPORTING OF SIGNIFICANT CONSTRUCTION DEFICIENCIES FOR 10 CFR 50.35(e) ITEMS. (2) QA BREAKDOWN IN DOCUMENT CONTROL FOR SATELLITE 306 WHICH WAS NOT REPORTED TO THE NRC, AND (3) RECORD REVIEWERS WERE REVISIONING AND ACCEPTING DOCUMENTATION FOR WORK THEY PREVIOUSLY PERFORMED AS INSPECTORS.

BASED ON ITS FINDINGS AND OBSERVATIONS, THE TRT CONCLUDES THAT THE QA AUDIT AND REPORTING PROGRAM HAS BAD AND CONTINUES TO EXHIBIT DEFICIENCIES. OVER A SIGNIFICANT PERIOD OF TIME, RECURRING DEFICIENCIES INCLUDE: INADEQUATE STAFFING DURING PEAK PERIODS; FAILURE BY MANAGEMENT TO REVISE THE QA PROGRAM FOR EFFECTIVENESS; PROCEDURAL AND IMPLEMENTATION INADEQUACIES; QUESTIONABLE QUALIFICATIONS AND CAPABILITIES; INCOMPLETE ASSESSMENT OF THE QA PROGRAM ON AN ANNUAL BASIS; INADEQUATE CORRECTIVE ACTION TO PREVENT OR REDUCE RECURRENCE OF IDENTIFIED DEFICIENCIES AND INSUFFICIENT MANAGEMENT DIRECTIVE AND UNDERSTANDING. IN SUMMARY, THE TRT FINDS THE QA AUDIT AND REPORTING SYSTEM LESS THAN ADEQUATE, AND THE AUDIT AND REPORTING PROGRAM AT THE TIME OF THE TRT REVIEW WAS QUESTIONABLE.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TBT ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE                      ISSUE                      TBT ISSUE SUMMARY                      TUE/CPMT RESOLUTION DOCUMENTS

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COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

TRT ISSUES -- SSERs 07, 08, 10 and 11

TUE/CPRT RESOLUTION DOCUMENTS

TRT ISSUE SUMMARY

ISSUE

ISSUE SOURCE

\*\* 11 11.848 TRT-F8  
SSER: 11 INADEQUATE PROCEDURES (REF PG  
ALLEG: TRT-F4 F-34)  
ITEM: 11.848

TRT  
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CRITERION V TO 10 CFR 50, APPENDIX B REQUIRES THAT QA/QC PROCEDURES BE WRITTEN TO PRESCRIBE ACTIVITIES AFFECTING QUALITY. THE TRT FOUND THAT PROCEDURES IN SOME AREAS DID NOT COMPLY WITH THIS GUIDELINE. FOR EXAMPLE, MATERIAL CONTROL PROCEDURES DID NOT ADEQUATELY ADDRESS REQUIREMENTS FOR PHYSICAL INVENTORY CONTROL, MATERIAL TRACEABILITY, MATERIAL HANDLING, AND SEGREGATION OF PAINTS. TO ELECTRIC REQUIREMENTS FOR AUTHORIZED NUCLEAR INSPECTOR INVOLVEMENT IN THE TU ELECTRIC INSPECTION PROCESS WERE UNCLEAR. QUALITY CONTROL PERSONNEL INSPECTED WITHOUT WRITTEN PROCEDURES OR FORMAL ACCEPT/REJECT CRITERIA. SOME INSPECTION PROCEDURES LACKED COMPREHENSIVE INSPECTION AND REINSPECTION CRITERIA FOR INSPECTORS. REQUIREMENTS FOR REINSPECTION OF REPAIR WERE NOT CLEAR.

THE TRT FOUND THAT CONSTRUCTION PROCEDURES PROVIDED INADEQUATE INSTRUCTIONS TO CRAFT AND QA PERSONNEL FOR INSTALLATION OF TEMPORARY SUPPORTS, STEAM GENERATOR BOLTING, JAM BUTTS, THREAD ENGAGEMENT, RICHMOND ANCHOR BOLT INSERTS, REPAIR OF MISDRILLED HOLES/PLUG WELDING, MIXING OF PAINTS, AND PROTECTION OF UNPAINTED THREADS AND SURFACES. PROCEDURES DO NOT SPECIFY DESIGN STANDARDS FOR FABRICATED THREADS, INTERCHANGEABILITY OF VALVE PARTS, AND REACTION VESSEL CLEARANCES REQUIREMENTS. THERE WERE INADEQUATE WELDING PROCEDURES FOR WELDING OF THIN-WALL STAINLESS STEEL PIPE FOR PREVENTING BOOP SHRINKAGE. PROCEDURES DID NOT PROVIDE CLEAR PRECAUTIONARY DIRECTIONS REGARDING PROHIBITED CONSTRUCTION METHODS, SUCH AS UNAUTHORIZED WELDING TO REBAR, AND RESTRICTED USE OF VARIOUS TOOLS. REQUIREMENTS TO PAINT THE THREADS OF COMPONENT SUPPORT BOLTING CONTRADICT REQUIREMENTS OF ANOTHER PROCEDURE TO MAINTAIN THREADS FREE OF EXTRANEOUS MATERIALS.

IN SUMMARY, THE TRT QA/QC GROUP CONCLUDES THAT CONSTRUCTION AND INSPECTION PROCEDURES IN SOME AREAS WERE INADEQUATE, CONTRADICTIONARY, UNCONTROLLED, OR INCONSISTENT.

CAR(s) 80X, 66X, 68X, 65X, 67X, 87-013, 69X, 87-009, 87-015, 83, 46, 87-035, 87-039, 87-002, 70X, 95X, 87-016, 87-018, 71X, 87-01, 87-041, 101, 72X, 87-005

SDAR CP 87-32, 85-27, 86-12, 85-38, 87-081, 87-023, 87-070, 85-003, 86-050, 87-056, 86-063, 86-38, 87-113

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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TRI ISSUES -- SSERs 07, 08, 10 and 11

ISSUE SOURCE

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TRI ISSUE SUMMARY

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COMANCHE PEAK STEAM ELECTRIC STATION (CPSSES)

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TRT ISSUES -- SSER# 07, 08, 10 and 11

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\*\* 11 11.041 TRT-P9  
SSER: 11 OVERALL ASSESSMENT AND  
ALLEG: TRT-P9 CONCLUSIONS (REF PG P-34)  
ITEN: 11.041

ISSUE

CER PART IV

TRT  
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APPENDIX F CONSOLIDATES ALL QUALITY ISSUES IDENTIFIED BY ALL TRT GROUPS IN RELATION TO EIGHT QUALITY ATTRIBUTES. AS NOTED IN THE INTRODUCTION, THE SCOPE OF THE TRT REVIEW AND INSPECTION WAS LIMITED TO THE QA/QC CONCERNS RAISED BY THE ALLEGATIONS. APPENDIX F FOCUSES ON PROBLEM AREAS THAT NEED FURTHER IDENTIFICATION. THIS IDENTIFICATION OF PROBLEM AREAS WILL FACILITATE THE PREPARATION OF A CORRECTIVE ACTION PLAN, WHICH SHOULD PROVIDE REASONABLE ASSURANCE THAT THE FACILITY HAS BEEN PROPERLY CONSTRUCTED.

BASED ON ITS ASSESSMENT OF THE TOTAL TRT EFFORT, THE QA/QC GROUP FINDS THAT QA/QC PROBLEMS AT COMANCHE PEAK APPEAR TO BE THE RESULT OF THE FOLLOWING CONDITIONS THAT EXISTED PRIOR TO 1984:

- a. TU ELECTRIC SENIOR MANAGEMENT WAS NOT ACTIVELY INVOLVED IN SITE QA/QC ACTIVITIES.
- b. THE TRAINING AND QUALIFICATION OF QA/QC, CRAFT, AND OTHER PERSONNEL WERE NOT ADMINISTERED AND MONITORED EFFECTIVELY.
- c. DESIGN ENGINEERING ACTIVITIES WERE NOT EFFECTIVE IN PROVIDING CRAFT AND QA PERSONNEL WITH ADEQUATE PROCEDURES, INSTRUCTIONS, AND OTHER DESIGN DOCUMENTS.
- d. THE CONTROL OF DOCUMENTS, AND SUBSEQUENTLY OF RECORDS, WAS REplete WITH RECURRENT DEFICIENCIES.
- e. SOME CRAFT PERSONNEL APPEARED TO BE INSENSITIVE TO QA/QC CONCERNS AT TIMES, POSSIBLY BECAUSE OF LACK OF TRAINING, TIGHT SCHEDULES, AND EXCESSIVE SCHEDULE EMPHASIS BY CONSTRUCTION MANAGEMENT.
- f. QUALITY MANAGEMENT WAS LAX IN ITS RESPONSIBILITIES TO DIRECT AND OVERSEE AN EFFECTIVE SITE QUALITY PROGRAM.

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

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8. SOME QC PERSONNEL EXHIBITED REPEATED LAPSES IN EFFECTIVELY EXECUTING THEIR RESPONSIBILITIES FOR INSPECTION ACTIVITIES.

THE PATTERN OF FAILURES BY QA AND QC PERSONNEL TO DETECT AND DOCUMENT DEFICIENCIES SUGGESTS AND INEFFECTIVE BAR AND TUCO INSPECTION SYSTEM. THIS PATTERN, COUPLED WITH (a) THE PAST PROBLEMS IN THE DOCUMENT CONTROL SYSTEM, (b) DEFICIENCIES IN THE QC QUALIFICATION PROGRAM, (c) INEFFECTIVENESS OF THE QUALITY AUDIT AND SURVEILLANCE SYSTEMS, (d) A RUDIMENTARY AND INEFFECTIVE TRENDS AND CORRECTIVE ACTION SYSTEM, (e) QC PROBLEMS AS SHOWN IN QA/QC CATEGORY 8, AQ-30; AND (f) INSTANCES OF IMPROPER WORKMANSHIP OF HARDWARE AS FOUND BY ALL OF THE TRT GROUPS, CHALLENGES THE ADEQUACY OF THE QC INSPECTION PROGRAM AT CPSES ON A SYSTEM-WIDE BASIS.

CORRECTIVE ACTION WILL REQUIRE HIGH-LEVEL MANAGEMENT ATTENTION AND A NEW MANAGEMENT EMPHASIS ON THE IMPORTANCE OF QUALITY AS A VITAL ELEMENT OF AN ADEQUATE CONSTRUCTION PROGRAM.

TO ELECTRIC ACTIONS  
AS THE TRT QA/QC GROUP HAS NOTED PREVIOUSLY, ITS RESULTS ARE BASED ON A BIASED SAMPLE IN THE SENSE THAT THE SAMPLE WAS INITIALLY DEVELOPED FROM ALLEGATIONS. ADDITIONAL ITEMS BROUGHT TO THE TRT'S ATTENTION, AND ITEMS FOUND BY THE TRT, NEVERTHELESS THE TRT BELIEVES THE RESULTS ARE MEANINGFUL. TU ELECTRIC SHALL EVALUATE THE TRT QA/QC FINDINGS AND CONSIDER THE IMPLICATIONS OF THESE FINDINGS ON THE QUALITY OF CONSTRUCTION AT COMANCHE PEAK. TU ELECTRIC SHALL THEN SUBMIT TO THE MRC A PROGRAM PLAN AND SCHEDULE FOR COMPLETING A DETAILED AND THOROUGH ASSESSMENT OF THE QA ISSUES PRESENTED IN THE ENCLOSURE TO THIS SUPPLEMENT. THE PROGRAMMATIC PLAN AND THE PLANS FOR ITS IMPLEMENTATION WILL BE REVIEWED AND EVALUATED BY THE MRC STAFF.

THE TRT CONSIDERS THE FINDINGS TO BE GENERIC TO BOTH UNITS 1 AND 2, AND THE PROGRAM PLAN AND SCHEDULE SHOULD ADDRESS BOTH UNITS. THIS PROGRAM PLAN SHOULD:

- (1) ADDRESS THE ROOT CAUSE OF EACH FINDING AND ITS GENERIC IMPLICATIONS ON SAFETY-RELATED SYSTEMS.



COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
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PROGRAMS, OR AREAS. (2) ADDRESS THE COLLECTIVE SIGNIFICANCE OF THESE DEFICIENCIES, (3) ADDRESS THE TOTAL IMPACT OF ONE DISCIPLINE-RELATED FINDING IN OTHER DISCIPLINES, AND (4) PROPOSE AN ACTION PLAN THAT WILL CORRECT ALL PROBLEMS IDENTIFIED AND ENSURE SUCH PROBLEMS DO NOT OCCUR IN THE FUTURE.

THE PLAN SHOULD ALSO ASSURE THAT THE PENDING MATTERS ARE ADDRESSED SO AS TO PROVIDE REASONABLE ASSURANCE THAT NO SAFETY-SIGNIFICANT DEFICIENCIES REMAIN UNDETECTED AND UNRESOLVED. TU ELECTRIC ELIMINATION OF THE POTENTIAL QUALITY IMPLICATIONS OF THE TRY FINDINGS SHALL INCLUDE, BUT NOT BE LIMITED TO THE AREAS OR ACTIVITIES SELECTED BY THE TRY. THE PROGRAM PLAN MUST DESCRIBE THE DEPTH AND BREADTH OF TU ELECTRIC'S APPROACH IN SUFFICIENT DETAIL TO PERMIT AN INDEPENDENT EVALUATION OF THE PLAN. THIS EVALUATION MUST CONCLUDE THAT THE PLAN IS COMPREHENSIVE AND SELF-SUFFICIENT AND WILL PROVIDE REASONABLE ASSURANCE THAT THE QUALITY OF THE CONSTRUCTION CAN BE DEMONSTRATED.

THE ACTIONS SHALL ALSO CONSIDER THE USE OF MANAGEMENT PERSONNEL WITH A FRESH PERSPECTIVE TO EVALUATE THE TRY'S FINDINGS AND IMPLEMENT CORRECTIVE ACTIONS. TU ELECTRIC SHALL CONSIDER THE USE OF AN INDEPENDENT CONSULTANT TO PROVIDE OVERSIGHT TO THE PROGRAM. TU ELECTRIC SHALL ALSO INVESTIGATE THE ROLE OF THE PRINCIPAL CONTRACTOR PERSONNEL (BROWN & ROOT AND ERASCO) IN REGARD TO QUALITY ASSURANCE/QUALITY CONTROL CONCERNS. ALTHOUGH THE TRY QA/QC GROUP REALIZES THAT TU ELECTRIC IS ULTIMATELY RESPONSIBLE FOR THE PLANT, THE CONTRACTOR (CONSTRUCTOR) WAS DIRECTLY RESPONSIBLE FOR CONSTRUCTION AND QUALITY CONTROL. TU ELECTRIC SHALL ALSO CONSIDER THE PRUDENCE OF CONTINUING TO RELY ON CONTRACTOR MANAGEMENT PERSONNEL INVOLVED IN ONGOING WORK AND RECOVERY EFFORTS WHEN THEY ARE THE SAME PEOPLE DIRECTLY RESPONSIBLE FOR THE PROBLEMS IDENTIFIED HEREIN.



Log # TXX-88254  
File # 10010  
10068

**TU**ELECTRIC

March 16, 1988

William G. Council  
*Executive Vice President*

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
DOCKET NOS. 50-445 AND 50-446  
DESIGN DEFICIENCIES IDENTIFIED IN THE  
CORRECTIVE ACTION PROGRAM

REF: Letter from W. G. Council to the NRC, logged TXX-88135  
dated February 1, 1988

Gentlemen:

During the public meeting between the NRC staff and TU Electric on December 9, 1987, and in the letter from S. Ebnetter of the NRC staff to W. G. Council of TU Electric dated January 22, 1988, the NRC staff requested that TU Electric identify the nature (root causes) of the deficiencies and weaknesses that have occurred in the design process in the past. We received an extension in submitting this report from the Office of Special Projects and have kept them informed of the status of this response. While agreeing that generic implication evaluations are not necessary when a complete design validation is performed, the staff requested root cause identification in order to evaluate the adequacy and sufficiency of the corrective and preventive actions for current and future CPSES design activities. Pursuant to that request and our last response to the NRC (see referenced letter), the attached assessment has been prepared.

The assessment was prepared by TU Electric and engineering contractor personnel who have extensive experience in the engineering and design of nuclear power plants. This experience includes knowledge of current day technical methods and industry design control and documentation practices. The TU Electric/engineering contractor personnel have applied their current day knowledge and expertise to identify the potential root causes.

The assessment was developed by first performing a collective evaluation of the issues addressed in Appendices A and B of the Project Status Reports (PSRs) and defining broad, programmatic categories of potential root causes based upon the TU Electric/engineering contractor personnel familiarity with the PSR issues. The causative nature of each issue was then reviewed to identify the applicable category or categories of root causes. At the same time, each issue was reviewed to assure that its nature would not indicate a category of root cause not encompassed by those specifically identified. Additionally, the corrective and preventive actions that had been taken were reviewed to verify that the potential root causes were adequately addressed.

TXX-88254  
March 16, 1988  
Page 2 of 2

In addition to this assessment, the PSR Appendices A and B identify Significant Deficiency Analysis Reports (SDARs) and their corresponding TXX letter from TU Electric to the NRC for those issues determined to be reportable under the provisions of 10CFR50.55(e). These SDARs include a description of the deficiency, safety implications, and corrective action, and typically identify the cause for the specific issue.

The attached assessment conservatively identifies broad, programmatic root cause categories to assure that the corrective and preventive actions implemented are likewise broad and programmatic. We believe that TU Electric's corrective and preventive actions fully address the identified root causes, are being properly implemented in current design activities and will be appropriately incorporated into future design activities.

Very truly yours,

W. G. Council

By: John W. Beck  
John W. Beck  
Vice President,  
Nuclear Engineering

JCH/grr  
Attachment

c - Mr. R. D. Martin, Region IV  
Resident Inspectors, CPSES (3)

### ROOT CAUSE ASSESSMENT

During the public meeting between the NRC Staff and TU Electric on December 9, 1987, and in the letter from S. Ebnetter of the NRC Staff to W. G. Council of TU Electric dated January 22, 1988, the NRC Staff requested that TU Electric identify the nature (root causes) of the deficiencies and weaknesses that have occurred in the design process in the past. While agreeing that generic implication evaluations are not necessary when a complete design validation is performed, the Staff requested root cause identification in order to evaluate the adequacy and sufficiency of the corrective and preventive actions for current and future design activities.

This assessment has been prepared in response to that request. As is discussed more fully below, root causes have been identified in the following broad, programmatic categories:

- o Translation of licensing commitments into design criteria.
- o Design document development, control and verification.
- o Translation of design criteria into engineering installation and procurement documents (specifications and detail drawings).
- o Interface control.
- o Audits.
- o Other.

The design validation portion of the TU Electric Corrective Action Program (CAP) is described in detail in several letters<sup>1</sup> from TU Electric to the Nuclear Regulatory Commission (NRC). As described in those letters, the design validation is a complete review of the safety-related aspects of CPSES design performed by experienced architect/engineer firms (engineering contractors) that were not involved previously in the portions of the design they reviewed. The design validation program was subdivided into 11 disciplines and the results reported in 11 Project Status Reports (PSRs). Within each PSR, Appendix A summarizes the resolution of the Comanche Peak Response Team (CPRT) and external issues related to the particular discipline, and Appendix B summarizes the resolution of issues identified during the performance of the CAP design validation that were determined to be reportable under the provisions of 10CFR50.55(e). The corrective and preventive actions established in response to each of these issues are also described in these Appendices.

The PSR Appendices A and B issues were reviewed by TU Electric and engineering contractor personnel. These personnel have extensive experience in the engineering and design of nuclear power plants, including current industry design control and documentation practices. Based on this experience and a detailed understanding of the issues, they have reviewed the nature of the issues and assessed their root causes to provide a basis for evaluating the adequacy of the corrective and preventive actions implemented by TU Electric.

The engineering process is comprised of many complex and interrelated activities, including establishment of design criteria, design control, implementation of criteria, iteration of engineering analyses, control of interfaces and interpretation of codes, standards and regulations. As a result, identification of root cause is a highly judgmental process. Nevertheless, a review of the issues in Appendices A and B collectively, without regard to their significance, can provide a conservative, programmatic understanding of their root causes. Such a collective evaluation has been performed by first defining broad programmatic categories of potential root causes based upon familiarity with the PSR issues. The causative nature of each issue was then reviewed to identify the applicable category or categories of applicable root causes. At the same time, each issue was reviewed to assure that its nature would not indicate a category of root cause not encompassed by those specifically identified. Additionally, the corrective and preventive actions that had been taken were reviewed to verify that the potential root causes were adequately addressed.

Both primary and contributory root causes have been identified. For example, in some instances involving calculations that did not provide a complete identifiable basis for validation of the design, the primary root cause was determined to be incomplete documentation of inputs or assumptions. In addition, it was judged possible that additional or contributory cause(s) may have existed, such as incomplete design verification, weakness in technical auditing, personnel training or incomplete design criteria. Accordingly, these have been identified as root causes as well. While the PSRs identify the corrective and preventive actions specific to the nature of a particular issue, the overall corrective and preventive actions implemented by TU Electric envelope all potential root causes.

This root cause assessment is based on an "engineering and design perspective" of the issues. That is, even where an issue was caused, at least in part, by the action of another organization (e.g., Construction, Quality Control or Operations/Startup), a root cause was attributed to Engineering if it appeared that an action by Engineering might have prevented or ameliorated the issue. For example, where such other organizations had not fully implemented design requirements, the issue was deemed attributable to the engineering documents (specifications, calculations or drawings) not specifying the pertinent engineering and design requirements with the clarity and detail expected under current practice. Such an "engineering and design perspective" can result in overemphasis of the responsibility of engineering and design activities for some of the issues discussed in the PSRs. However, this perspective results in the identification of potential root causes even remotely relating to engineering and design and thereby provides a conservative basis for assessing the adequacy and sufficiency of the corrective and preventive actions.

In evaluating the issues identified in the PSRs and assessing root causes, the TU Electric/engineering contractor personnel have applied their current day knowledge and expertise. Factors such as regulatory requirements, technical methods and the interpretation of design control requirements have evolved significantly since the inception of the CPSES project. This evolution affects perception of the issues and the formulation of corrective and preventive actions.



For example, evolving regulatory requirements and guidelines frequently lead to changes in the understanding or interpretation of preexisting regulatory requirements or standards for regulatory acceptance, and thus to different or additional actions to satisfy existing licensing commitments. This evolution can manifest itself in changes to the actual design of the plant, such as the set of electrical equipment requiring environmental qualification or the provisions for fire protection, or in the extent of as-built design documentation required.

Application of new technical methods to designs developed using earlier methods can lead to identification of apparent design inconsistencies which are more efficiently resolved by plant modification than justified through detailed analysis. For example, in the case of pipe support design at CPSES, it was decided that the design of the pipe support system should be validated using current technical methods. The original analyses had been performed a number of years before and the design had progressed through a number of iterations using the original designer's technical methods of that earlier time. It would have been a complex, time-consuming task to attempt to reconstruct those original analyses. It was judged to be not only technically correct but also more efficient to apply current technical methodology during design validation and to install any indicated modifications. It was neither necessary nor practical to determine which modifications, if any, might be required to assure support function and which resulted merely from the use of different technical methods.

As the duration and complexity of nuclear projects have increased, the accepted design control practices and documentation of the design process have similarly expanded and become more complex.

The approach used in the PSRs and this assessment yields root causes and corrective and preventive actions which are based on current accepted practice. This assessment does not make judgments as to whether an identified issue reflected a condition that would have been regarded as a deficiency when the original design was performed.

The following paragraphs discuss the root causes identified for the PSR Appendices A and B issues using the approach and perspectives described above. The root causes are presented in broad programmatic categories and, for each category, the corrective and preventive actions are summarized.

#### 1. TRANSLATION OF LICENSING COMMITMENTS INTO DESIGN CRITERIA

Design criteria comprise the basic input from which the design is implemented (e.g., through calculations and drawings) and translated into instructions (e.g., detail drawings and installation specifications) for subsequent activities such as procurement, construction and quality control inspection. Complete, well documented design criteria significantly enhance the ability to implement the design uniformly, thus assuring licensing commitments are met. Conversely, weaknesses in the documentation of design criteria were judged to be the cause of a number of the specific issues resolved by the CAP design validation process.

Examples within this category include instances where design criteria required to meet licensing commitments were either not specifically defined, not correct or not completely documented to assure that the design uniformly complied with the licensing commitments. In other instances, design criteria were defined and documented but with insufficient clarity to assure uniform application. In a few instances, issues resulted from design criteria having been documented in multiple locations inconsistently.

The corrective and preventive actions taken by TU Electric resolve this root cause category. Engineering and Construction-Engineering (ECE) procedures require the development of Design Basis Documents (DBDs) specifying the design criteria necessary to assure that the design of safety related structures, systems and components complies with the licensing commitments. For each discipline, licensing documentation was reviewed to identify applicable regulatory requirements and licensing commitments. Design criteria were established from these requirements and commitments and consolidated in the Design Basis Documents (DBDs). ECE procedures are in place to control the DBDs in the future and assure they remain consistent with the licensing documents. The design was validated using these criteria, and was redone or modified where necessary to correct or resolve specific issues. In accordance with ECE procedures, current and future engineering and design activities must be based on the criteria specified in the DBDs.

## 2. DESIGN DOCUMENT DEVELOPMENT, CONTROL AND VERIFICATION

Weaknesses in design document development, control and verification contributed to a number of the issues reported in the PSRs. These issues can be grouped into a number of subcategories. For example, some issues relate to calculations which did not provide the complete basis for a system, structure or component design. These issues, while not necessarily resulting in deficient designs, manifested themselves in an inability to readily validate or reproduce the results of original calculations. The causes in these instances generally related to inadequate or incomplete documentation of design input, assumptions, methodology or engineering judgment.

A number of PSR issues were related to the implementation of design changes. Design changes were not always identified fully on all affected documents and thus inconsistencies existed between design documents. Contributing to this may have been instances of design changes being made without following approved procedures thus resulting in lack of appropriate engineering review. Controls also did not assure consideration of changes for their effect on previously completed work. That is, Engineering did not always identify the need to backfit new design requirements to previously completed construction activities or quality control inspections.

A contributory root cause related to design document development and control is that design verification activities were not always sufficient to detect inconsistencies or errors in design documents.

The corrective and preventive actions taken by TU Electric resolve this root cause category. TU Electric's Comanche Peak Engineering (CPE) thoroughly reviewed and revised the ECE procedures not only to assure consistency with the requirements of 10CFR50 Appendix B and ANSI N45.2.11, "Quality Assurance Requirements for the Design of Nuclear Power Plants", but also to enhance their effectiveness in assuring compliance. These ECE procedures govern design document development, control and verification activities for both CPE personnel and engineering contractors. Performance of the CAP design validation program in accordance with these procedures resolved the issues in this category.

Engineering contractors performing design activities at CPSES are required by the ECE procedures to utilize the ECE procedures directly or to develop their own procedures which are consistent with the requirements of the ECE procedures. CPE's Engineering Assurance Group reviews and concurs with the engineering contractors' procedures for design and design control to assure that the essential requirements of the ECE procedures are implemented.

The ECE procedures require that calculations identify inputs and describe and justify assumptions, methods and engineering judgments. Safety-related calculations, drawings and specifications are required to be design verified. The issuance and documentation of safety-related calculations, drawings and specifications are controlled.

The ECE procedures clearly specify the approved methods for design change (Design Change Authorization-DCA, Non-Conformance Report-NCR or document revision) and require that changes to design documents be reviewed, verified and controlled in a manner similar to the requirements for the original design document. They also require that the changes be transmitted to all affected organizations.

The ECE procedures require Engineering to identify any requirements for backfitting construction work or quality control inspection when developing changes to design documents. Conformance of previously installed hardware to final acceptance attributes of the validated design is assured through the Post-Construction Hardware Validation Program (PCWVP).

3. TRANSLATION OF DESIGN CRITERIA INTO ENGINEERING INSTALLATION AND PROCUREMENT DOCUMENTS (SPECIFICATIONS AND DETAIL DRAWINGS)

Installation specifications and detail drawings are the primary means by which Engineering transmits the design to Construction for installation and to Quality Control (QC) for inspection. Similarly, procurement specifications are the means by which Engineering requirements are provided to equipment vendors. A number of the PSR issues involve situations in which installed hardware did not satisfy design requirements. Similarly, some issues related to vendor qualification or testing of procured items which did not satisfy design requirements. From the viewpoint of the "engineering and design perspective" utilized in this root cause assessment, such issues were attributed to incompletely or unclearly specified technical requirements or inspection acceptance attributes by Engineering.



The corrective and preventive actions taken by TU Electric resolve this root cause category. The safety-related installation specifications and detail drawings were reviewed and revised to comply with the validated design documents and to clearly and completely define the technical requirements for hardware installation at CPSES. The installation specifications contain not only the technical requirements but also the QC inspection acceptance attributes. The construction procedures and QC inspection procedures were also revised to be consistent with the revised installation specifications and detail drawings. Current and future construction work and QC inspections are performed in accordance with the revised installation specifications, detail drawings, construction procedures and QC inspection procedures.

Previously procured safety-related equipment is validated during the CAP to assure compliance with design interface requirements. The present and future procurement of equipment is controlled by revised ECE procedures which assure compliance with the design requirements, including required qualification and testing. These ECE procedures identify the required technical interface between CPE/engineering contractors and equipment vendors. This interface control assures that the technical requirements identified in procurement documents are understood and complied with by equipment vendors. The ECE procedures also identify technical reviews which Engineering must perform to assure that supplied equipment complies with design requirements. For example, Engineering is required to review the documentation of testing or analysis supplied by equipment vendors to assure that equipment is environmentally or seismically qualified.

#### 4. INTERFACE CONTROL

Some of the PSR issues were attributed to the fact that interface control did not always prevent inconsistencies from occurring in design or in design change activities. It appeared that Engineering did not always assure that design documents and design changes were transmitted to and fully reviewed by all affected organizations.

The corrective and preventive actions taken by TU Electric resolve this category of root cause. A revised ECE procedure specifically requires engineering contractors and the NSSS vendor to develop procedures to define and control their interfaces. In addition, revised ECE procedures require that safety-related design documents and changes (e.g., DCAs and applicable NCRs) receive an interdisciplinary review prior to approval to assure proper consideration of the impact of the design or design change on design activities of interfacing engineering disciplines/groups.

Revised ECE procedures also provide for appropriate interfaces between Engineering and other TU Electric organizations. For example, they require that Quality Control review and concur with all changes to the installation specifications. This review and concurrence identifies required QC inspection procedure revisions and QC inspector training. Installation specification changes (DCAs or NCRs) are transmitted to

Construction, which determines if changes are required to its procedures to assure compliance with Engineering requirements. Procedures require that Startup review changes to design documents that are required to develop system and equipment test procedures and perform the test. Engineering reviews test procedures prior to test performance and test results for acceptability. ECE procedures require that Operations review changes to specifications and design changes which affect system operation.

#### 5. AUDITS

Although it was not necessary to review the adequacy of audits of the original engineering and design for purposes of conducting the design validation program, it is recognized that a contributory root cause for some PSR issues may have been a weakness in the emphasis on technically oriented, performance based audits by TU Electric Quality Assurance or the original engineering organization's Quality Assurance group. That is, while audits do not cause problems, it is possible that more technically oriented audits might have detected and corrected some issues.

The corrective and preventive actions taken by TU Electric resolve this root cause category. TU Electric Quality Assurance performs technical audits (as part of its Technical Audit Program-TAP) and programmatic audits of the engineering contractors. TU Electric Quality Assurance performs programmatic audits of CPE activities and will also perform technical audits when CPE assumes responsibility for safety-related design activities. The CPE Engineering Assurance group performs technical and programmatic surveillances of CPE and engineering contractor design activities to assure that the requirements of the ECE procedures for design and design control are satisfied and that the design documentation is technically correct. The implementation of ECE procedures for design and design control is assured by audits and surveillances.

#### 6. OTHER

Several root causes were identified that are not included in the above categories. Some instances may be attributable to the training of engineering personnel or to isolated engineering errors. In addition, there was a limited number of instances which even with the "engineering and design perspective" did not have a root cause related to engineering at CPSES.

The corrective and preventive actions taken by TU Electric resolve these other root causes. The CPE Engineering Assurance organization is responsible for training CPE personnel to the ECE design and design control procedures. Records of this training are maintained. In addition, the engineering contractors are required to train their personnel to their design and design control procedures and to maintain records of the training. TU Electric and the engineering contractors have requirements to confirm the qualifications of their engineers.

The results of technical and programmatic audits and surveillances performed by TU Electric Quality Assurance and CPE Engineering Assurance are trended to identify recurring deficiencies or errors. When appropriate, changes to the design process are identified and implemented to prevent similar types of deficiencies or errors.

The corrective and preventive actions for issues that did not have an engineering root cause are described in the PSRs.

The root causes identified in this assessment have been compared to the following potential root causes related to design identified by the Senior Review Team (SRT) in a letter<sup>2</sup> to TU Electric in February 1987:

1. Design Commitment Control
2. Code Compliance Procedures
3. Organizational Interface Procedures (internal and external)
4. Design Change Control Procedures
5. Design Verification Procedures
6. Procedure Implementation
7. Technical Audits of Design Control
8. Technical Audit Corrective Actions
9. Training and Personnel Qualification

As shown in Table 1, although the characterizations differ slightly, the root causes identified by this assessment encompass those preliminarily identified by the SRT.

As described above, a conservative root cause assessment has been completed, from an engineering and design perspective, for the issues presented in the 11 PSRs. The results, similar to potential root causes for design issues suggested by the SRT, are presented in broad programmatic categories. This assures that corrective and preventive actions are likewise considered in a broad programmatic context.

Extensive programmatic corrective and preventive actions have been implemented by TU Electric and their effectiveness demonstrated in the performance of the CAP. The effectiveness of these actions is further assured by the detailed audit, surveillance, review and overview activities applicable to that program. These activities include the audits and/or surveillances performed by TU Electric Quality Assurance (QA), Comanche Peak Engineering (CPE) Engineering Assurance, and the QA organizations of the engineering contractors; as well as the reviews and/or overviews performed by the Comanche Peak Response Team (CPRT), the TU Electric Quality Assurance Technical Audit Program (TAP), the Engineering Functional Evaluation (EFE) and Cygna. The improvements demonstrated in current design activities will continue to be utilized for future design activities.

Accordingly, TU Electric's corrective and preventive actions fully address the identified root causes, are being properly implemented in current design activities and will be appropriately incorporated into future design activities.

TABLE 1

COMPARISON OF ROOT CAUSE ASSESSMENT TO SRT IDENTIFIED ROOT CAUSES

<u>SRT IDENTIFIED ROOT CAUSES</u>	<u>CAP DEFINED ROOT CAUSES*</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Design Commitment Control	x	x				
Code Compliance Procedures	x	x				
Organizational Interface Procedures				x		
Design Change Control Procedures		x				
Design Verification Procedures		x				
Procedure Implementation		x	x		x	
Technical Audit of Design Control					x	
Technical Audit Corrective Actions					x	
Training and Personnel Qualification						x

\* Root cause categories:

1. Translation of licensing commitments into design criteria.
2. Design document development, control and verification.
3. Translation of design criteria into engineering installation and procurement documents (specifications and detail drawings).
4. Interface control.
5. Audits.
6. Other.

REFERENCES

1. Letter No. TXX-6500, "Response to Request for Additional Information in Conjunction with Program Plan Update," dated June 25, 1987, W. G. Council to U. S. Nuclear Regulatory Commission.

Letter No. TXX-6631, "Comanche Peak," dated August 20, 1987, W. G. Council to U. S. Nuclear Regulatory Commission.

Letter No. TXX-6712, "Post Construction Hardware Validation Program (PCHVP) Engineering Evaluation Methodology," dated September 8, 1987, W. G. Council to U. S. Nuclear Regulatory Commission.

Letter No. TXX-6676, "Technical Audit Program and Engineering Functional Evaluation," dated September 8, 1987, W. G. Council to U. S. Nuclear Regulatory Commission.

Letter No. TXX-6961, "Comanche Peak Programs Description Clarification," dated November 25, 1987, from W. G. Council to U. S. Nuclear Regulatory Commission.

2. Letter J. W. Beck to W. G. Council, dated February 4, 1987.



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before the  
ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

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

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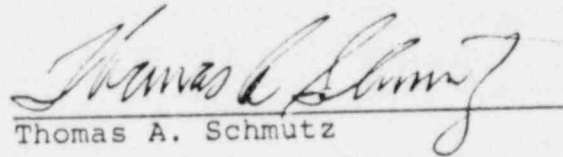
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