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IR 86-05
Ref: #10CFR2.201

William G. Council
Executive Vice President

May 1, 1987

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
INSPECTION REPORT NOS. 50-445/86-07 AND 50-446/86-05
REVISED RESPONSES FOR NOTICE OF VIOLATION (NOV)
ITEMS C, E, AND F AND NOTICE OF DEVIATION (NOD) ITEM E

REFERENCE: 1) TU Electric Letter TXX-6222 from W. G. Council
to NRC dated February 18, 1987.
2) TU Electric Letter TXX-6306 from W. G. Council
to NRC dated March 6, 1987.
3) TU Electric Letter TXX-6374 from W. G. Council
to NRC dated March 27, 1987.

Gentlemen:

In pursuing the corrective steps as delineated in our response (Reference 2) to NOV 445/8607-V-22 (Item E) and 445/8607-V-04 (Item F), we have determined that an update to the Corrective Steps (sections 2 and 3) and a revision to the Date of Full Compliance Will Be Achieved section will be required. We hereby submit our revised response in the attachment to the letter. The original Notice of Violation and the TU Electric response have been included to aid in understanding our revised response. Those portions of the response which have been revised are denoted by a revision bar in the right margin.

The corrective steps have been updated for NOV 445/8607-V-22 (Item E) to indicate the current DCA revision levels. The original Date When Full Compliance Will Be Achieved for Item E was April 30, 1987, for incorporation of DCA 33,523, Rev. 0, into drawing 2323-E1-0172 and June 30, 1987, for incorporation of DCA 31,277, Rev. 0, into drawing 2323-E1-0156. Compliance will be achieved for DCA 33,523, Rev. 0, and DCA 31,277, Rev. 1, by August 24, 1987, and September 7, 1987, respectively.

Our response to NOV 445/8607-V-04 (Item F) has been revised because we determined that recent modifications to General Design Criteria No. 4 will permit the saddle blocks and shims to be removed from the RCS Piping. The original Date When full Compliance Will Be Achieved for Item F for reviewing completed travelers was May 20, 1987. Compliance will be achieved for this review no later than June 30, 1987.

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In addition, the original Date When Full Compliance Will Be Achieved for NOV 445/8607-V-21 (Item C) was March 8, 1987, for completing a Work Order to terminate a cable and to notify the Operations Department. Compliance was achieved on March 16, 1987, for completing the Work Order and March 12, 1987, for notifying the Operations Department.

Also, the original Date When Full Compliance Will Be Achieved for NOD 445/8607-D-01 (Item E) was March 6, 1987. Reference (3) revised the date until May 1, 1987. Compliance will be achieved for sending a supplement to TU Electric letter TXX-3657 (SDAR: CP-83-08: Control Valve Brackets Welding) by July 1, 1987.

We verbally notified your Mr. Ian Barnes on April 30, 1987, that we would submit our revised response for NOV 445/8607-V-22 by May 1, 1987.

Very truly yours,

W. G. Council

W. G. Council

By: *G. S. Keeley*
G. S. Keeley
Manager, Nuclear Licensing

RSB/mlh

c - Mr. E. H. Johnson, Region IV
Mr. D. L. Kelley, RI - Region IV
Mr. H. S. Phillips, RI - Region IV

NOTICE OF VIOLATION
ITEM E (445/8607-V-22)

- E. Criterion V of Appendix B to 10CFR Part 50, as implemented by Section 5.0, Revision 3 of the TUGCO QAP dated July 31, 1984, requires that activities affecting quality shall be prescribed by and accomplished in accordance with documented instructions, procedures, or drawings of a type appropriate to the circumstances.

Paragraph 2.1.3 of TNE Procedure TNE-DC-7, Revision 16, dated February 14, 1986, "Preparation and Review of Design Drawings," requires that completed drawings shall be checked for accuracy and compliance. Paragraph 2.1.4 also requires an engineering review for technical accuracy upon completion of the drafting/design review.

Contrary to the above, drawings were not appropriately review/checked for accuracy. The following drafting errors were involved with unsatisfactory items identified during inspections related to ISAP I.a.4:

1. Drawing 2323-E1-0172, sheet 17, identified cable EG120248 AS EG20248.
2. The white conductors of cables EG109964, EG109975, EG109963, and EG109764 were not shown on Drawing 2323-E1-0156, Revision CP-1.
3. Drawing 2323-E1-0156, Revision CP-7, shows the green conductor of cable EG118347 landed at terminal TCA-5; the conductor actually installed is white with a black stripe. This drawing also showed the orange conductor of cable EG130012 landed at terminal TCA-7; the conductor physically installed was black from cable EG118347A. There was no "cloud" on the drawing to indicate that this was a design change.
4. Drawing 2323-E1-0172, sheet 17, Revision CP-4, did not identify the color of the conductor to be landed at TB2-31 (445/8607-V-22).

REVISED RESPONSE TO ITEM E (445/8607-V-22)

We admit the violation and the requested information follows:

1. Reason for Violation

The violation was caused by unrelated oversights by drafting/design and engineering personnel.

For clarity in the following discussions, the drawing errors are numbered in accordance with the numbers used in the Notice of Violation. Errors 3.a and 3.b refer to the two errors stated in item 3 of the Notice of Violation.

REVISED RESPONSE TO ITEM E (445/7607-V-22) CONT'D

1. Reason for Violation - cont'd

Errors 1 and 4 on drawing 2323-E1-0172 were a result of transferring information from a poor quality original to a mylar document. In the reproduction process, some of the alphanumeric characters on the original did not carry over onto the mylar.

Error 2 on drawing 2323-E1-0156 was due to an inadvertent incomplete incorporation of a DCA. When DCA-15484, Rev. 3 was incorporated into Revision CP-1 of drawing no. 2323-E1-0156 the white conductors of cables EG109964, EG109975, EG109963 and EG109764 were inadvertently omitted.

Error 3(a) on drawing 2323-E1-0156 was due to a drafting error and error 3(b) to an incomplete "clouding" of a drawing revision. "Clouding" is used to distinguish information incorporated during the drawing revision.

2. Corrective Steps Taken and Results Achieved

Error 1

The cable EG120248 identification error was corrected by revision CP-3 (dated February 4, 1985) to drawing 2323-E1-0172.

Error 2

The omission of the white conductors of cables EG109964, EG109975, EG109963 and EG109764 was corrected by revision CP-5 (dated January 10, 1985) to drawing 2323-E1-0156.

Error 3.a

TNE Design Deficiency Report (TDDR) EE-86-187 was issued on April 30, 1986, to identify the error. DCA 31,277, Rev. 1, will be issued to change the color of the conductor of cable EG118347 landed at terminal block TCA, point 5, from green to white with a black stripe. This DCA is associated with the design change of Design Modification (DM) 85-077 and therefore will be issued in conjunction with the issuance of the DM. The DCA will be incorporated into drawing 2323-E-0156 upon implementation and inspection of DM 85-077.

Error 3.b

TDDR EE-86-186 was issued on April 30, 1986, to identify the cloud omission error. DCA 31,277, Rev. 1, will be issued to ensure the field verifies that the orange conductor of cable EG130012 is landed at TCA-7 and that all conductors of cable EG118347A are spared. This DCA is associated with the design change of DM 85-077 and therefore will be issued in conjunction with the issuance of the DM. The DCA will be incorporated into drawing 2323-E1-0156 upon implementation and inspection of DM 85-077.

REVISED RESPONSE TO ITEM E (445/8607-V-22) CONT'D

2. Corrective Steps Taken and Results Achieved - cont'd

Error 4

DCA 33,523, Rev. 0, was issued to identify the color of the conductor to be landed at terminal block TB-2, point 31. This DCA will be incorporated into the next revision of drawing 2323-E1-0172.

3. Corrective Steps Which Will be Taken to Avoid Further Violations

The drawing errors resulted from oversights by individuals involved in the preparation of drawings and revisions, and are not considered indicative of a generic problem. Since the organization preparing drawings and revisions at the time the errors were made is no longer engaged in the activity, counseling or reinstruction of personnel is not appropriate.

Electrical drawing reviews are specified by Stone & Webster Engineering Corporation (SWEC) procedure PP-032, "Preparation, Review, and Approval of SWEC Project Drawings," and TU Electric procedure ECE-DC-7, "Preparation and Review of Design Drawings". TU Electric believes that the reviews required by these procedures will provide the necessary degree of confidence in the accuracy of electrical drawings. In addition, there are several mechanisms whereby drawing errors are detected. These mechanisms consist of field installation activities, post installation inspections, construction testing, pre-operational testing and Comanche Peak Response Team inspections. These additional mechanisms provide further assurance that significant drawing errors will be detected and corrected.

Correction of drawing errors is normally accomplished via design change Nonconformance Reports (NCRs) and Design Change Authorizations (DCAs). Comanche Peak Engineering has recently initiated a program for trending of design change NCRs and DCAs. This program, as specified in procedure ECE 2.11, "Design Change Trending", identifies adverse trends involving drawing errors and requires corrective actions as appropriate. TU Electric believes this program is adequate to identify and correct programmatic or generic design drawing deficiencies.

4. Date When Full Compliance Will be Achieved

DCA 33,523, Rev. 0 will be incorporated into drawing 2323-E1-0172 no later than August 24, 1987.

DCA 31,277, Rev. 1 will be incorporated into drawing 2323-E1-0156 no later than September 7, 1987.

NOTICE OF VIOLATION
ITEM F (445/8607-V-04)

- F. Criterion III of Appendix B to 10 CFR Part 50, as implemented by Section 3.0, Revision 4, dated November 20, 1985, of the TU Electric QAP, states, in part, "... Design changes, including field changes, shall be subject to design control measures commensurate with those applied to the original design and approved by the organization that performed the original design..."

Contrary to the above, field design changes, pertaining to the installation of stainless steel shims between the reactor coolant system crossover leg piping and saddle blocks, were not submitted to the organization that performed the original design for review and approval. In addition, the traveler which was used to implement the design change did not document all of the changes that occurred. (445/8607-V-04)

REVISED RESPONSE TO ITEM F (445/8607-V-04)

We deny the first part of the alleged violation for the reasons that follow:

At the time that DCA 21,116, Revision 0, was issued (September 27, 1984), Comanche Peak Engineering (CPE) possessed an approved design document which allowed the installation of the subject stainless steel shims. This design document, titled, "Reactor Coolant System Equipment Supports Shim/Gap Acceptance/Criteria," had been transmitted to CPE via letter (WPT-7517, dated September 18, 1984) from the Westinghouse Comanche Peak Project Manager in Pittsburgh. The use of shim stock/capture plates for supports and restraints, except RCP tie rods, was approved on page 7 of the criteria. Although CPE failed to provide the transmittal letter to the NRC inspector during the inspection, the letter indicates prior design approval by Westinghouse.

We admit the second part of the violation and the requested information follows:

1. Reason for Violation

The violation was caused by a lack of clarity in the documentation of completed work on the Reactor Coolant Systems (RCS) loop 2 crossover leg, steam generator (SG) side, saddle block shim installations. The traveler which directed installation of the shim stock was worked in combination with another traveler which addressed installation of the saddle block on the piping. In implementing steps required by the second traveler measurements documented in the first traveler were superseded by repositioning the saddle block. Through discussions with the personnel involved, it was determined that the shims were installed as required and the final configuration was in accordance with design requirements. However, conformance with design requirements cannot be clearly verified by reviewing the completed travelers.

REVISED RESPONSE TO ITEM F (445/8607-V-04) CONT'D

2. Corrective Steps Taken and Results Achieved

As a result of recent modifications in General Design Criteria 4, action has been initiated to remove the saddle blocks and shims from the RCS loop piping. Therefore, no corrective action is considered necessary for the existing field conditions.

The completed travelers for shim installation on the other RCS loop 1,2,3 and 4 restraints will be reviewed to ensure the documentation clearly describes the final installation and conformance to design requirements. This review (conducted per Deficiency Report No. C-87-866) is being performed to ensure the traveler deficiencies described in Section 1 above are not indicative of a generic problem. Additional corrective actions will be taken as required based on the results of this review.

3. Corrective Steps Which Will be Taken to Avoid Further Violations

Appropriate CPE personnel have been instructed to ensure that instructions provided in travelers governing field activities adequately and clearly document conformance to design requirements in the final configuration.

4. Date When Fuel Compliance Will be Achieved

Removal of the saddle blocks and shims will be completed prior to fuel load.

Review of completed travelers for other RCS loop 1,2,3 and 4 restraints will be completed no later than June 30, 1987.