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Ref # 10CFR2.201

William G. Council  
Executive Vice President

January 29, 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  
INSPECTION REPORT NOS. 50-445/87-31 AND 50-446/87-23  
UPDATED RESPONSE TO NOTICE OF DEVIATION (NOD) 445/8731-D-03

REF: TU Electric Letter TXX-88081 from W. G. Council  
to NRC dated January 18, 1988

Gentlemen:

The referenced letter provided our response to Notice of Deviation (NOD) 445/8731-D-03. In that response we stated that by January 29, 1988, an update describing the results of our assessment of generic implications would be provided. Our updated response is attached. Those portions of the response which have been revised are denoted by a revision bar in the right margin.

Very truly yours,

W. G. Council

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

RDD/mgt  
Attachment

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

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NOTICE OF DEVIATION  
(445/8731-U-03)

Section 4.1, "Walkdown Guidelines" of Revision 2 to Impell Project Instruction (PI) 0210-052-004 states, in part, "The Walkdown information will be documented using the checklists provided in Attachment B . . . . Table 1 provides the acceptable tolerances to be used in the walkdown process.

"Guidelines for performing the conduit support and conduit routing walkdowns are provided below:

"Item 5. Support Configuration

- Draw an as-built sketch
- Identify all structural/Unistrut member sizes, lengths . . ."

"Item 7. Hilti Kwik Anchor Bolt Information

- Identify letter stamp and projection length of all anchor bolts on supports . . ."

"Conduit Routing Checklist"

"Item 1 Conduit Isometrics

- Draw an as-built sketch showing conduit routing . . .
- Determine span lengths"

Section 4.1.4, "Seismic Evaluation of Train C Conduit Supports," of Revision 3 to Impell PI 02310-052-003, states, in part, ". . . SSE support loads are generally calculated by multiplying the conduit tributary mass times the equivalent static acceleration . . . ." Paragraph 4.3.4 further states, ". . . for interaction of . . . loads, the following interaction . . . equation shall be used . . . ."

The following examples, identified by the NRC during inspection and review of the post construction hardware validation program (PCHVP) module, Train C Conduit Less Than or Equal to 2", are in deviation from the above criteria:

1. On the Type 7 support A-02456/NQ-16508, the NRC inspector identified several discrepancies. The baseplate was reported to be 8" long but was found by the NRC inspector to be 9" long. Impell also reported that the anchor bolts were 1/2" Hilti Kwik bolts; however, they were found to be 1/2" Hilti Super Kwik bolts. Impell reported that the Nelson studs were 1/4" diameter while the NRC inspector determined these bolts to be 3/8" diameter.

NOTICE OF DEVIATION (CONT'D)  
(445/8731-D-03)

2. On the support identified as detail "B", a Type 7 support, Impell reported that the anchor bolts were Hilti Kwik bolts; however, the NRC inspector determined that they were Hilti Super Kwik bolts.
3. On the isometric provided on page 4 of 8 in Appendix A of Calculation/Problem No. A-02603, Impell reported a length of conduit between the Type 5 support identified as A-02628 and an adjacent Type 5 support as 21"; however, the NRC inspector determined this length to be 12 1/2".
4. In Calculation/Problem No. A-02454, while performing the load calculation for the northeast/southwest direction for support A-02605, the engineer neglected to include a 14" length of conduit between the support being evaluated and an adjacent support.
5. On the Type 5 support evaluation for support A-02605-NQ-16507, the calculated embedment length for the Hilti Kwik bolt was found to be incorrect. Furthermore, the interaction check for the "finger" clamp exceeded the allowable and was justified by adding a note which stated that the calculation is conservative; however, this support is the same support mentioned in paragraph 4 above for which the load calculation is incorrect (445/8731-D-03).

UPDATED RESPONSE TO NOTICE OF DEVIATION  
(445/8731-D-03)

TU Electric agrees with the alleged deviation and the requested information follows:

1. Reason for Deviation

The discrepancies identified in the Notice of Deviation resulted from inaccurate recording, checking and calculating of Train C (non-safety related) 2 inch and under conduit walkdown data on the part of personnel involved.

2. Corrective Steps Taken and Results Achieved

The discrepant conditions described in the Notice of Deviation were examined in the field by Impell personnel. The results of the examination confirmed the NPC inspectors observation in each case. The information in the applicable walkdown forms and calculations have been revised accordingly. In each case, the qualification status of the conduit system did not change. Deficiency Report C-87-4800 has been written to document walkdown discrepancies.

UPDATED RESPONSE TO NOTICE OF DEVIATION (CONT'D)  
(445/8731-D-03)

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

Those engineers that are still onsite and are involved in the subject walkdowns, as well as all other personnel involved in the Impell structural integrity group have been retrained on this subject, emphasizing the importance of error free walkdown data.

The Comanche Peak Manager of Civil Engineering has met with several groups involved in structural walkdowns, including the Impell Train C personnel. Examples of recently identified walkdown discrepancies were presented and the importance of accurate recording and checking of walkdown data was re-emphasized.

Impell Train C project instructions have been reviewed for areas that could be misinterpreted which potentially affect the accuracy of field measurements. Clarifications have been made to instructions to improve measurement consistency when measuring spans with bends. Clarification has also been given to Train C project personnel regarding the need for documenting the use of conservative values when exact values are difficult or impossible to obtain.

To assess the generic implications of walkdown discrepancies identified by the NRC, Impell has conducted a study and issued a report on the accuracy and adequacy of Train C walkdown data. The study included a review of audits and surveillances performed by various independent organizations. It was noted that no major deficiencies have been identified and that none of the deficiencies affected the qualification status of any Train C supports. The study also included a sample reinspection which covered 78 supports and encompassed a total of 5,271 attributes. The attribute discrepancy rate was found to be approximately 1.9% of which only 0.7% were unconservative. None of the discrepancies resulted in the disqualification of the affected conduit systems. Furthermore, it was demonstrated that Train C conduit systems generally exhibit large safety margins between demand and ultimate capacity. Based on these results TU Electric does not consider additional reinspection to be warranted. However, we are concerned with such errors and are endeavoring to reduce personnel errors through the training described above.

4. Date When Full Compliance Will be Achieved

The correction of identified walkdown discrepancies was completed by December 30, 1987.

The Impell retraining of Train C walkdown personnel was completed by December 18, 1987.

The meeting of walkdown personnel with the Manager of Civil Engineering was held January 20, 1988.

The clarification of Impell instructions was completed by January 22, 1988.

The Impell Accuracy and Adequacy of Walkdown Information Report was completed January 26, 1988.