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March 31, 1988

William G. Counsil
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
UPDATED RESPONSE TO NOTICE OF VIOLATION (NOV) ITEM A
(445/8731-V-01) AND NOV (445/8735-V-02)

REF: (1) TU Electric Letter TXX-88081 from W. G. Counsil to NRC dated January 18, 1988

(2) TU Electric Letter TXX-88298 from W. G. Counsil to NRC dated March 14, 1988

Gentlemen:

Reference (1) and (2) provided our responses to NOV Item A (445/8731-V-01) and NOV (445/8735-V-02), respectively. In those responses, we stated that updates would be submitted describing any additional actions taken to assess the generic implications of the subject discrepancies. Our responses have also been updated to reflect the completion of retraining, and the number of painting discrepancies and their resolution.

Attached is our updated response. Those portions of the response which have been revised are denoted by a revision bar in the right margin.

Very truly yours,

W. G. Counsil

W. G. Counsil

By: D. R. Woodlan

D. R. Woodlan
Docket Licensing Manager

RDD/gj
Attachment

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

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NOTICE OF VIOLATION
ITEM A (445/8731-V-01)

A. Criterion V of Appendix B to 10 CFR Part 50, as implemented by Section 5.0, Revision 3 of the TU Electric Quality Assurance Plan (QAP), states, in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, or a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. . . ."

Section 7.7.1 of Revision 2 to EBASCO'S Field Verification Method (FVM) CPE-EB-FVM-CS-033, states, in part, "The Walkdown Engineer will identify each type of support by comparison with Supplement I and/or 2323-S-0910 sketches or drawings, and will as-built the support on the applicable sketch or drawing . . . ." Paragraph K of this section of the FVM further states, "All dimensions and/or attributes shown will be verified . . . . If the designed dimensions/attribute recorded." Further, paragraph N states that the walkdown engineer will redline ". . . any HKB/HSKB spacing violation per Table 2."

Contrary to the above, the following conditions were identified:

1. For support C13007808-04, which is a 2323-S-0910 Type CA-1a support, the anchor bolts identified as bolts A, E, and F were lined out. This implied that anchor bolts did not exist at these locations for this unique support. During a subsequent walkdown by the NRC inspector, however, an anchor bolt was found to exist at the location designated for anchor bolt A. This bolt was determined to be a 1/4" Hilti Kwik bolt with the letter designation "D" and a projection of 1". While the existence of this additional anchor bolt will have a detrimental effect on the structural integrity of the support, the fact that it was not identified during the EBASCO walkdown is of significance relative to the adequacy of the walkdown itself.

2. On support C14G21398-03 the walkdown engineer failed to record one of the dimensions required to fully locate the structural tubing on the base plate. This information is required in order to calculate base plate stress and anchor bolt loads. This dimension is one of the dimensions required to be reported for this type of support (2323-S-0910 sh. CSM-18 type support).

3. On support C14B13125-02, the walkdown engineer failed to note a spacing violation between the 1/4" Hilti Kwik bolt designated as Bolt F on the support in question, and a 3/8" HKB on an adjacent conduit support. The NRC inspector found these anchor bolts to be 2 1/4" apart; while the FVM required a spacing of at least 3 1/8" (445/8731-V-01).

RESPONSE TO NOTICE OF VIOLATION
ITEM A (445/8731-V-01)

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

1. Reason for Violation

The violation resulted from errors on the part of personnel recording and checking walkdown data.

2. Corrective Steps Taken and Results Achieved

The discrepant conditions described in the Notice of Violation have been examined by Ebasco personnel. In each case the NRC inspectors observation was confirmed. The information contained on the applicable walkdown forms have been revised. None of the discrepancies affected the structural integrity of the support. Deficiency Reports (DRs) C-87-04771 and C-87-05411 have been written to document the discrepancies and resolutions.

3 Corrective Steps Which Will be Taken to Avoid Further Violations

All appropriate Ebasco walkdown personnel have been retrained on the importance of documenting walkdown data completely and accurately.

Ebasco has determined that changes to the conduit walkdown procedure should reduce the occurrance of some types of errors. The conduit walkdown procedure is being revised to minimize the need for personnel to measure to hypothetical lines such as conduit centerlines.

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

To assess the generic implications of walkdown discrepancies, Ebasco selected two different samples of existing walkdown data and re-examined the attributes in these samples. One sample was biased toward walkdowns performed by an individual who appeared to be responsible for two of the NRC identified discrepancies. The sample consisted of 40 packages (each package covers a single conduit run in given room). The second sample was chosen from the total population of existing walkdown packages without bias toward a time frame or individual. This sample consisted of 63 packages.

The two samples encompassed over 20,000 attributes. The error rate was found to be less than 2% for both samples. None of the discrepancies resulted in the disqualification of the associated support. Ebasco has also reviewed the results of audits and surveillances of the conduit support walkdown program. This review also indicates an error rate of less than 2%. This error rate is similar to that found at other sites for the same type activity. 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.

RESPONSE TO NOTICE OF VIOLATION
ITEM A (445/8731-V-01) (Cont'd)

4. Date When Full Compliane Will be Achieved

The retraining of walkdown personnel was completed by January 29, 1988.

Revision of conduit walkdown procedures as described above will be completed no later than May 15, 1988.

NOTICE OF VIOLATION
(445/8735-V-02)

Criterion V of Appendix B to 10 CFR Part 50, as implemented by Section 5.0, Revision 3, of the TU Electric Quality Assurance Plan (QAP), requires that activities affecting quality shall be prescribed by and accomplished in accordance with documented instructions, procedures, or drawings.

Section 7.7.1 of Revision 2 of Ebasco's Field Verification Method (FVM) CPE-EB-FVM-CS-033, states, in part, "The Walkdown Engineer will identify each type of support by comparison with Supplement I and/or 2323-S-0910 sketches or drawings, and will as-built the support on the applicable sketch or drawing . . . ." Paragraph K of this section of the FVM further states, "All dimensions and/or attributes shown will be verified . . . . If the designed dimensions/attributes are incorrect they shall be lined out and the actual dimension/attribute recorded." Also, Section 13.1, of this FVM further states, "Deficiencies identified in conjunction with the implementation of this procedure shall be documented on a Nonconformance Report (NCR) . . . . Examples of deficiencies are: . . . D. Missing washers on Hilti Bolts . . ."

Comanche Peak Engineering Procedure CPE-EB-FVM-CS-029, "Procedure For Seismic HVAC Duct and Duct Hanger As-Built Verification in Unit 1 and Common Areas," Revision 5 dated September 21, 1987, requires that welding shall be identified for type of weld (fillet, flare bevel, groove, etc.), weld length, and weld size.

Comanche Peak Engineering Specification 2323-MS-85, Revision 5 dated September 15, 1987, Appendix K, paragraph 4.6, requires that a galvanized coating shall be applied to areas where galvanizing has been removed due to welding or other fabrication/installation operations.

Engineering and Construction Procedure ECC 1.04, "Preparation, Issuance, and Control of Construction Department Procedures and Instructions," Revision 0 dated August 27, 1987, requires that any change to controlled construction procedures be made by formally revising the existing procedure.

Contrary to the above, the following conditions were identified:

1. On Conduit Support C13G04860-02, the walkdown engineer failed to note that there were no washers installed under the hex nuts on the Hilti Kwik bolts. Because of this, there was no NCR written to correct the situation as required by the FVM.

NOTICE OF VIOLATION
(445/8735-V-02) (Cont'd)

2. For Conduit Support C14G20243-01, the walkdown engineer reported the length of the support baseplate to be 9 7/8". The NRC inspector measured this dimension to be 9 1/2".

3. Conduit Support C14G11447-03, a No. 2323-S-0910 Type 1A support utilizing P5000 Unistrut members with one main member and three outriggers, supports two 3/4" conduits. For the westernmost end of the main Unistrut member to the centerline of the west conduit, the walkdown engineer reported this dimension to be 5 1/8" and the NRC inspector measured this dimension to be 5 7/8". For the center outrigger, the walkdown engineer reported 7 1/8" and the NRC inspector measured this dimension to be 8 5/8". For the easternmost outrigger, the walkdown engineer reported it to be located 15/16" from the end of the main Unistrut member and the NRC inspector measured this dimension to be 1 1/4".

4. For Conduit Support C14G11447-04, the dimension locating the center outrigger was reported by the walkdown engineer to be 6 5/8" from the westernmost end of the main Unistrut member. The NRC inspector measured this distance to be 7 1/2".

5. On Conduit Support C14G11447-14, the walkdown engineer reported a total of eight Hilti Kwik bolts (HKBs) - two 1/4" HKBs in each of the three outriggers and two 3/8" HKBs in the main Unistrut member. The NRC inspector noted that there were actually nine HKBs (there were three 3/8" HKBs in the main Unistrut member and not two as reported).

6. A fillet weld 3/16" x 5/8" long, which exists at the location identified by note 3 on seismic duct hanger Drawing DH-1-844-1K-4F, Revision 1, was incorrectly identified by engineering personnel during the Post Construction Hardware Validation Program as a tack weld.

7. Five finished welds located on seismic Duct Hanger DH-1-844-1K-WP13 and portions of three welds located on seismic Duct Hanger Drawing DH-1-844-1K-1R did not have the required galvanized coating.

8. Administrative and technical information corrections were made to figure 7.6 of Construction Procedure CHV-106, Revision 1, a form used to document the results of an engineering qualitative walkdown of Duct Segment B-1-658-016 without performing a formal revision to the procedure (445/8735-V-02).

RESPONSE TO NOTICE OF VIOLATION
(445/8735-V-02)

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

1. Reason for Violation

Items 1 through 5

These items resulted from errors on the part of personnel recording and checking conduit walkdown data.

RESPONSE TO NOTICE OF VIOLATION
(445/8735-V-02) (Cont'd)

1. Reason for Violation (Cont'd)

Item 6

Walkdown Procedure CPE-EB-FVM-CS-029, Rev. 5, "Field Verification Method Procedure for Seismic HVAC Duct and Duct Hanger As-built Verification in Unit 1 and Common Areas," describes tack welds as including fillet welds less than 1/2 inch long. The procedure does not address welds that are longer than 1/2 inch. The walkdown engineer took a conservative approach and designated the subject weld as a tack weld, knowing that no credit is taken for tack welds during structural analysis.

Item 7

The failure to apply galvanized coating to five welds on hanger DH-1-844-1K-WP13 occurred because the craft workers misinterpreted a note concerning inspection requirements on the associated drawing. The failure to apply coating to portions of three welds on hanger DH-1-844-1K-1R resulted from inadequate painting by the craft workers and failure of the QC inspector to note the inadequate coating.

Item 8

The improperly controlled changes to figure 7.6 of procedure CHV-106, "Qualitative Walkdown of HVAC Supports & Ducts," were the result of errors on the part of personnel initiating the change. Although the changes were minor and technically acceptable, they were promulgated via a memo rather than a formal procedure revision as required by ECC 1.04, "Preparation, Issue and Control of Construction Department Procedures and Instructions."

2. Corrective Steps Taken and Results Achieved

Items 1 through 5

The discrepant conditions described in Items 1 through 5 of the NOV have been examined by Ebasco personnel and the NRC inspector's observations have been confirmed. The information contained on the applicable walkdown forms has been revised accordingly. None of the discrepancies affected the structural qualification of the support. Nonconformance Report (NCR) 87-04505 was written on the missing washers discussed in Item 1. Deficiency Report (DR) C-88-01176 has been initiated to document the discrepancies.

Item 6

Revision 6 to CPE-EB-FVM CS-029 has been issued stating that welds longer than 1/2 inch may be designated as tack welds. Based on this revision, no change to the subject walkdown data sheet was required.

RESPONSE TO NOTICE OF VIOLATION
(445/8735-V-02) (Cont'd)

2. Corrective Steps Taken and Results Achieved (Cont'd)

Item 7

Nonconformance Reports (NCRs) 87-04198 and 88-00962 were written on the discrepancies on hangers DH-1-844-1K-WP13 and DH-1-844-1K-1R, respectively. The NCR on hanger DH-1-844-1K-WP13 was dispositioned to recoat the welds. It was determined that seven other hangers are covered by drawings containing the same note. These seven hangers were field checked and two of them were found to have uncoated non-structural welds. NCRs were written on these welds and were dispositioned to recoat the welds. The NCR on hanger DH-1-844-1K-IR was dispositioned to recoat all welds on the subject hanger.

Item 8

Deficiency Report (DR) C-87-0593 was issued to document the improperly controlled procedure change. Revision 2 has been issued to procedure CHV-106 to formally change figure 7.6.

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

Items 1 through 5

Appropriate Ebasco walkdown personnel have been retrained on the importance of documenting walkdown data completely and accurately.

Ebasco has determined that changes to walkdown procedures should reduce the occurrance of some types of errors. Conduit walkdown procedures are being revised to minimize the need for personnel to measure to hypothetical lines such as conduit centerlines.

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

To assess the generic implications of walkdown discrepancies, Ebasco selected two different samples of existing walkdown data and re-examined the attributes in these samples. One sample was biased toward walkdowns performed by an individual who appeared to be responsible for two of the NRC identified discrepancies. The sample consisted of 40 packages (each package covers a single conduit run in given room). The second sample was chosen from the total population of existing walkdown packages without bias toward a time frame or individual. This sample consisted of 63 packages.

RESPONSE TO NOTICE OF VIOLATION
(445/8735-V-02) (Cont'd)

3. Corrective Steps Which Will be Taken to Avoid Further Violations (Cont'd)

Items 1 through 5

The two samples encompassed over 20,000 attributes. The error rate was found to be less than 2% for both samples. None of the discrepancies resulted in the disqualification of the associated support. Ebasco has also reviewed the results of audits and surveillances of the conduit support walkdown program. This review also indicates an error rate of less than 2%. This error rate is similar to that found at other sites for the same type activity. 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.

Item 6

Appropriate walkdown personnel have been trained on Revision 6 to CPE-EB-FVM-CS-029.

Item 7

Appropriate craft personnel have been reinstructed on the need to apply adequate coating to all welds specified by the controlling document and that an exemption from inspection requirements on nonstructural welds does not constitute an exemption from coating requirements. The QC inspector has been made aware of the error by copy of the NCR.

Item 8

The personnel involved in the improperly controlled change to procedure CHV-106 will be reinstructed in the requirements of procedure ECC 1.04 regarding procedure changes.

4. Date When Full Compliance Will be Achieved

Revision of conduit walkdown procedures as described in our response to Items 1 through 5 will be completed no later than May 15, 1988.

Full compliance has been achieved for Item 6.

Recoating of welds per Item 7 will be completed no later than May 15,1988.

Reinstruction of personnel described in Item 8 will be completed no later than May 15, 1988.