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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before Administrative Judges:

Peter B. Bloch, Chairman
Dr. Kenneth A. McCollom
Dr. Walter H. Jordan

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In the Matter of

TEXAS UTILITIES ELECTRIC COMPANY, et al.

(Comanche Peak Steam Electric Station,
Units 1 and 2)

Docket Nos. 50-445-OL
50-446-OL

ASLBP No. 79-430-06 OL

December 18, 1984

MEMORANDUM

(Reopening Discovery; Misleading Statement)

Citizens Association for Sound Energy (CASE) and the Staff of the Nuclear Regulatory Commission (Staff) agree that Texas Utilities Electric Company, et al. (Applicants) have made a false statement in this proceeding and that a proper remedy is to reopen discovery.¹ Applicants disagree.²

Although we will await the Staff investigation before determining whether this is a material false statement³, we find Applicants'

¹ CASE's Motions and CASE's Answer to Applicants' Response to Board Request for Information Regarding Cinched Down U-Bolts, November 5, 1984 (CASE's Motion), and NRC Staff Response to CASE's Motions . . . , December 7, 1984 (Staff Response).

² Applicants' Reply to CASE's Motion Concerning Information Regarding Cinching Down U-Bolts, November 19, 1984.

³ Staff has requested the advice of the Office of Inspection and (Footnote Continued)

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testimony to be misleading, to reflect adversely on the credibility of Applicants' expert witnesses and to be cause for reopening discovery.

Applicants' U-Bolt Summary Disposition Motion, June 29, 1984, relied in part on a testing program. Applicants state, at page 5:⁴

. . . [T]o assure that the tests and analyses accurately represent plant conditions, Applicants conducted a survey of the torque on a representative sample of cinched down U-bolts
. . . .

It now appears, however, that there is no sense in which the sample was representative or random.

First, the "sample" was collected with no written procedures.⁵ Second, there was no method of drawing a random or representative sample; the sample included "U-bolts that could be found . . . that were unpainted."⁶ Third, the sample was restricted to Unit 2, because "Unit 1 had already been painted", thereby allegedly making it impossible to obtain a relevant sample from Unit 1⁷; however, this sampling restriction was not disclosed and therefore not subject to challenge until after the Board requested the raw data from Applicants.

(Footnote Continued)

Enforcement concerning whether this is a material false statement.
Staff Response at 6.

4 Page 5 cites page 10 of the accompanying affidavit, which also states that the sample was "randomly selected."

5 Applicants' Response to Board Request for Raw Data Regarding Cinching Down U-Bolts, November 9, 1984 at 2.

6 Id. at 3.

7 Id. at 3.

Fourth, Applicants stated that they "inspected the torque of a randomly selected representative sample of cinched down U-Bolt supports" and presented the results of the sampling in Table 2, which provides the "Torque Range (ft-lbs.)."⁸ However, Applicants failed to mention that Table 2 was constructed using the average torque on the two bolts on each U-bolt. They also failed to mention that the torques were not always the same--a condition that may or may not be material but that differed from the test that was conducted, suggesting that the test may not have been representative of field conditions because torques used in the test were equal.⁹

Fifth, although Applicants claim that the torquing practices in both units were the same, their own filing discloses that the procedures changed; Applicants state:

[T]he construction practice for torquing Unit 1, common and Unit 2 U-bolts was the same. In this regard, Applicants note that the procedure referenced by CASE [a torquing procedure adopted by Applicants on October 8, 1982] was written at the suggestion of the NRC resident inspector at that time (Robert Taylor) to document the construction practice which had been and was currently being used to torque U-bolts. Finneran Affidavit at 2.¹⁰

It is apparent from Applicants' representation that prior to October 8, 1982, Unit 1 was constructed without any written procedure governing the torquing of U-bolts. Under the circumstances, it will

⁸ Applicants' Motion for Summary Disposition at 10.

⁹ Applicants' Response to Board Request for Raw Data at 2.

¹⁰ Applicants' Reply to CASE's Motion at 7.

require empirical information to determine that torques applied in Unit 2 are representative of those applied in Unit 1. Even were the same procedure in effect in both units, the turnover in relevant personnel during a period of years could affect practice, requiring evidence concerning whether the torque on Unit 2 bolts is representative of the torque on Unit 1 bolts.

Our concern about the reliability of Applicants' testimony goes beyond that of CASE and the Staff in the instant motion. In Applicants' Motion for Summary Disposition of CASE's Allegations, at 5, footnote 3, we find the following statement, which we believe to be a reiteration of earlier testimony before this Board:

Even though the Board refers to SA-307 [steel] material, the designation of the U-bolt material is SA-36. Applicants recognize that the material is the same [emphasis added] in any case, with A-307 being the designation employed for headed bolts.

Then, in Applicants' Response to Board Memorandum (Information on Composition of A36 and A307 Steel), we learn that the materials are not the same. Applicants' witnesses state, at p. 2 of their affidavit, that "there is a major difference in the specified mechanical requirements for SA36 and SA307 steels."

Furthermore, Applicants' Response to Board Memorandum (Information on Composition of A36 and A307 Steel) seems to be an intentional effort to avoid displaying, in clear language or tables, the information the Board sought in its October 25, 1984 order. We requested information on the extent to which the items tested by Applicants have been representative of the steels actually employed at the plant. We did this because

Dr. Iotti had described A307 steel to the Staff as "garbage steel," which is highly variable in content. We inferred that A-36 steel, previously considered in testimony to be identical to A307, also was a "garbage steel," a logical inference that has not been directly contradicted by responsive testimony.

Applicants did not address the variability of A-36 steel composition at all. Nor did they state directly how the test samples compared to steels in use at the plant. From Figure 1 of their filing it would appear that some fraction of the steels at the plant have a yield strength of less than any of the samples used in the Westinghouse tests and there are no data in our record concerning the extent to which the Westinghouse samples are representative of materials in use in the plant; nor is their data on the statistical error of the sample. From Figure 2, as well, there would appear to be a substantial portion of the steels in the plant with a tensile strength less than that subject to test, and we have no way of quantifying the significance of that. Furthermore, Applicants' tests related to friction, stiffness, relaxation and creep, characteristics of steel that are not readily ascertained from data on yield and tensile strength.

We note that Applicants also failed to respond fully to our question on the extent to which the U-bolt configurations in the plant are

the same as those tested.¹¹ Obviously, differences in those configurations would limit the extent to which the test results may be applied to actual configurations found in the plant. We suspect that this omission was intentional.

We have had other changes in position that are hard to understand. At Tr. 9881, Applicants' attorney insists on cross-examining Mr. Doyle, who had been examining CYGNA's witness. Despite the lack of orthodoxy in this suggestion, the Board granted the request. The purpose of the examination was to attack Mr. Doyle's knowledge concerning whether the use of cinched up U-bolts was industry practice. Yet, it now appears to be clear (based on the transcript of a recent conference between Applicants and Staff) that the use of cinched-up U-bolts at Comanche Peak is unique. Applicants should have known that at the earlier date and should have refrained from taking a position contrary to the facts.

Prior to our December 27, 1983 decision, witness Reedy testified about an alleged industry practice. Yet, on cross-examination by Mr. Walsh, it was discovered that the sole basis for his generalization was his knowledge of Comanche Peak. Tr. 6905-31, especially 6921-22 [MPSI

¹¹ Our memorandum of October 25, 1984, at p. 2, footnote 2 (cont.) stated that "there is no mention of the extent of their representativeness [sic] of the dimensions of U-Bolts used at the plant. See also . . ." Yet, Applicants treated the "See also" citation and the discussion of that citation as if it restricted the meaning of the clear words of the preceding sentence. We do not understand or sympathize with this lack of attention to our language.

should be read as NPSI], 6930-31 (Mr. Reedy evades Judge Bloch's question about industry practice by responding that he is a "registered professional engineer.").

After we had ruled that several sections of the AWS code appear to be applicable to Comanche Peak, we were assured that all welds are qualified under ASME and not subject to any AWS provisions. Tr. 6264/13-25, 6265/1-2 (Reedy). We ruled against that position. Later, we learned from Applicants that they agree that a few of the AWS code provisions pointed out by CASE are applicable to weld design at Comanche Peak.

There also have been instances of calculational errors and of mislabeling of tables in testimony filed before this Board. LBP 83-81, 18 NRC 1410, 1440-41 (1983).¹²

With respect to the role of an independent expert in this proceeding, pursuant to Applicant's plan, we have had conflicting representations. At Tr. 13033-13034, in the midst of a discussion concerning CYGNA's responsibility to review in detail the results of tests on U-bolts, Applicants' attorney objected that the Board was misconstruing CYGNA's role because

¹² See also the August transcripts of meetings between Applicants and Staff and Case's Proposed Findings of Fact and Conclusions of Law (Walsh/Doyle Allegations), August 22, 1983, especially Chapter XXVII. Although we have determined that some of the allegations in Chapter XXVII can not be substantiated, we have not reviewed each allegation thoroughly enough to ascertain whether any constitute significant inconsistencies or material misrepresentations.

[T]hey are not an independent reviewer of our plant. The professor who we are going to retain will perform that function.

However, Applicants' Report Regarding Academic Expert, November 9, 1984, at p. 3, stated that Applicants' expert in theoretical and applied mechanics reviewed "the basic engineering principles employed in the review and analyses set forth in Applicants' motions for summary disposition." If we understand this correctly, he did not review the details of Applicants' analysis of pipe supports affected by Walsh-Doyle issues.¹³ Hence, his role appears to have been limited in a way that precluded a meaningful independent review.

Similarly, despite the Board's conclusions rejecting the SIT Team's findings and Applicants' assurances that CYGNA would review pipe supports in order to resolve matters in controversy,¹⁴ CYGNA has adopted certain SIT findings and not gone into them, apparently at Applicants' request.¹⁵ Applicants appear to have ignored the advice given by the

13 If we are correct in this, it is directly contrary to Applicants' representation at Tr. 9267/8-12.

14 Tr. 9268/12-18; 9274/18-24; 9277/20-25; 9278/10-14 ("What we tried to do was assess the issues in controversy and then pick those systems where most, if not all, of the configurations would be found."). (Note that Judge Bloch is often referred to in this transcript as Judge Broch.)

15 See Tr. 13033-34 where the Board made it clear that CYGNA should examine in detail tests Applicants planned to conduct in order to substantiate the acceptability of the SIT Team acceptance of cinched-up U-bolts as a cure for stability problems. Compare CYGNA, Independent Assessment Program, Final Report - Phase 3; Volume 2, Appendix J, General Notes 7 and 8, See also Tr. 12,805, (Footnote Continued)

Board at Tr. 9283-85, 87 (CYGNA's checklist should include the Walsh/Doyle concerns; there should be a measure of observer reliability; filings under the plan should be clear and fully documented; findings will not rely on unanalyzed portions of Applicants' studies; use of tables, charts and matrixes; assistance in evaluating the meaning of recurrent non-costing errors). As a consequence, there is no independent review of Dr. Iotti's and Dr. Finneran's findings. Compare the Board's strong suggestion at LBP 83-81, 18 NRC 1410, 1454-55 (1983).

Under these circumstances, and in light of Applicants' failure to file current information about the completion of construction, CASE and the Staff may undertake additional discovery concerning samples, testing or any other aspect of testimony whose credibility they now decide to investigate within the time limits imposed in the accompanying Order. We also invite Applicants to review their own testimony and to disclose all their errors in the course of this proceeding (or the related docket) in a single filing, together with explanations.

(Footnote Continued)

12,810, 12826/7 to 12827/7, 12830/14-25, 12847/15 to 12848/9, 13038/8 to 13039/2 and 13114/8 to 13115/10. (These sections indicate some lack of clarity in the way in which Applicants and CYGNA were defining CYGNA's role.)

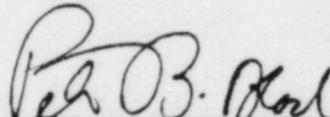
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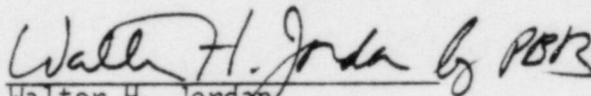
For all the foregoing reasons and based on consideration of the entire record in this matter, it is this 18th day of December 1984

ORDERED:

Citizens Association for Sound Energy and the Staff of the Nuclear Regulatory Commission may conduct discovery until February 21, 1985 on questions relating to samples, tests or the credibility of testimony or representations of Texas Utilities Electric Co., et al. in this proceeding. Delays in response to interrogatories will be considered should there be a request for an extension of this time period.

FOR THE
ATOMIC SAFETY AND LICENSING BOARD


Peter B. Bloch, Chairman
ADMINISTRATIVE JUDGE


Walter H. Jordan
ADMINISTRATIVE JUDGE


Kenneth A. McCollom
ADMINISTRATIVE JUDGE

Bethesda, Maryland