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USNRC

(CITIZENS ASSN. FOR SOUND ENERGY)

June 13, 1985 (Mailed 6/14/85)

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Administrative Judge Peter B. Bloch U. S. Nuclear Regulatory Commission Washington, D. C. 20555

OFFICE OF SECRETARY DOCKETING & SERVICE BRANCH

Dr. Kenneth A. McCollom, Dean Division of Engineering, Architecture & Technology Oklahoma State University Stillwater, Oklahoma 74074

Dr. Walter H. Jordan 881 W. Outer Drive Oak Ridge, Tennessee 37830

Gentlemen:

Subject: In the Matter of Texas Utilities Electric Company, <u>et al</u>. (Comanche Peak Steam Electric Station, Units 1 and 2) Docket Nos. 50-445-1 and 50-446-1

> Further Clarification of CASE's Position Regarding Applicants' use of 3 Sm

On April 13, 1985, CASE provided the Board with a copy of Mark Walsh's letter to John Fair regarding a question on CASE's position on certain code requirements discussed in CASE's 8/6/84 Answer to Applicants' Motion for Summary Disposition Regarding Consideration of Friction Forces in the Design of Pipe Supports with Small Thermal Movements.

We have come to the conclusion, following internal discussions, that further clarification is needed in this regard. We are therefore sending Mr. Noonan the attached clarifying letter.

We are attaching it for the Board's information also.

Respectfully submitted,

CASE (Citizens Association for Sound Energy)

to Ellis

(Mrs.) Juanita Ellis President

cc: Service List (6/24/85)
Also hand-delivered 6/14/85 at NRC Staff/Applicants Meeting in Arlington, TX.
to Mr. Noonan and Mr. Horin.

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(CITIZENS ASSN. FOR SOUND ENERGY)

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June 13, 1985 (Mailed 6/14/85)

Mr. Vincent Noonan Nuclear Reactor Regulation U. S. Nuclear Regulatory Commission Washington, D. C. 20555

> Subject: In the Matter of Texas Utilities Electric Company, et al. (Comanche Peak Steam Electric Station, Units 1 and 2) Docket Nos. 50-445-1 and 50-446-1

Dear Mr. Noonan:

During recent internal reviews and discussions regarding the open design/design QA issues, we have come to the conclusion that additional clarification of CASE's position is needed. Please see that copies are supplied to the proper members of your Walsh/Doyle Allegation (Design/Design QA) panel; we also believe that Cygna should be supplied with this information.

In the April 12, 1985, letter to Mr. Fair from Mark Walsh, Mr. Walsh discussed the question Mr. Fair raised regarding code requirements, specifically in regard to friction. However, we want to make it very clear that this concept is one of several with which we disagree, and that it cannot be looked at in a vacuum, but must be considered in whatever context Applicants attempt to use it.

By way of background, for almost three years, since the time that Mr. Reedy introduced the concept of using 3 Sm (2 X yield strength), Applicants have been trying to justify the adequacy of supports on the basis of extraordinary allowables because the source of the loading was originated by thermally induced expansion (see Applicants' Witness Mr. Reedy's Answer 43,

Applicants' Exhibit 142 in the 9/82 hearings; <u>see also</u> Applicants' Witness Mr. Vivirito at Tr. 5894-5896). This was carried to the ultimate by Appl ...ts' Witness Mr. Finneran (in Applicants' 5/16/84 Motion for Summary Disposition Regarding Consideration of Friction Forces in the Design of Pipe Supports with Small Thermal Movements), where he claimed at page 4 that Applicants could use three times the allowable for loading caused by friction since it was thermally caused.

These methods of justifying the unjustifiable have become routine with Applicants, and are especially notable in the cinched-up U-bolts and shim (zero inch clearance) box beams which are currently being subjected to this erroneous method of application of extraordinary allowables which are prohibited by code. Not only have Applicants accepted this erroneous procedure, but we note that the NRC and Cygna also appear ready to accept this procedure. We would like to hear from the Staff regarding its position on this.

The allowable stress for the constraint of thermal expansion of the pipe by the support is 1.0 times the allowable and not 3.0 times the allowable. <u>See</u> the attachments to Mark Walsh's April 12 letter, from ASME Section III, Subsection NF, 1983 Edition (including Winter Addenda).

Paragraph 3121.2, Primary Stress, states (first and last sentence):

"Primary Stress is any normal stress or shear stress developed by an imposed loading which is necessary to satisfy the laws of equilibrium of external and internal forces and moments. . . In addition to the above, for piping and component supports, stresses induced in the support by restraint of free end displacement [NF-3111(e) and (f)] and anchor motion of piping are considered primary stresses."

The reference to NF-3111(e) and (f) is as follows:

"The loadings that shall be taken into account in designing a piping or component support include, but are not limited to, those in (a) through (g) below:

". . .

1. . .

"(e) effects from component or piping thermal expansion; "(f) anchor and support movement effects . . . "

See also Table NF-3523(b)-1, note 5, which states:

"(5) For Service Levels A, B, C, and D, stresses induced on the supports by restraint of free end displacement and anchor motions of piping shall be considered as primary stresses."

Therefore, by code, the allowable loads/stresses for U-bolts and box frames which restrain thermal growth of the pipe is the same as the allowable for the other primary loads and <u>not</u> three times such allowable. And this must be considered whether it pertains to friction, cinched-up U-bolts, box frames, etc.

Sincerely,

CASE (Citizens Association for Sound Energy)

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(Mrs.) Juanita Ellis President

cc: Service List

Also hand-delivered 6/14/85 at NRC Staff/Applicants Meeting in Arlington, TX.