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USNRCUNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
TEXAS UTILITIES ELECTRIC	)	Docket Nos. 50-445 and
COMPANY, <u>et al.</u>	)	50-446
	)	
(Comanche Peak Steam Electric	)	(Application for
Station, Units 1 and 2)	)	Operating Licenses)

APPLICANTS' MOTION FOR SUMMARY  
DISPOSITION OF CASE'S ALLEGATIONS  
REGARDING SAFETY FACTORS

Pursuant to 10 C.F.R. §2.749, Texas Utilities Generating Company, et al. ("Applicants") hereby move the Atomic Safety and Licensing Board ("Board") for summary disposition of the Citizens Association for Sound Energy's ("CASE") allegations that industry's practice (followed by Applicants') of not expressly factoring each secondary (small), potential loads into piping and pipe support design calculations is not supported by adequate design margins (factors of safety). As demonstrated in the accompanying affidavit (Attachment 1) and statement of material facts (Attachment 2), there is no genuine issue of fact to be heard regarding this issue. Applicants urge the Board to so find, to conclude that Applicants are entitled to a favorable decision as a matter of law, and to dismiss this issue in this proceeding.

# I. BACKGROUND

Throughout the hearings, CASE has questioned industry practice of not expressly factoring every small, potential load into design calculations on piping and pipe supports. In its Proposed Findings of Fact, especially in Section I, CASE raises at issue the possible cumulative effects of not considering all such loads. In so doing CASE questions whether the safety factor regarding design is sufficient to justify not expressly considering these loads.

In Section I of its Proposed Findings, CASE presents alleged factual information not contained in the record and, based on this information, concludes that the actual factors of safety for nuclear pipe supports at Comanche Peak are on the order of about 1.4 and "less than the factors of safety for the AISC Code used to design warehouses." CASE's Proposed Findings at I-15. In that the issue of safety factor was not identified as a definitive issue until CASE filed its Proposed Findings, there was no specific response to the issue in the NRC Staff's or Applicants' Proposed Findings. However, Applicants responded to this issue in their reply to CASE's Proposed Findings (September 6, 1983) at 4-9.

In its Memorandum and Order of December 23, 1983 concerning design issues, the Board did not expressly address safety factors.

## II. APPLICANTS' MOTION FOR SUMMARY DISPOSITION

### A General

Applicants have previously discussed the legal requirements applicable to motions for summary disposition in their "Motion for Summary Disposition of Certain CASE Allegations Regarding AWS and ASME Code Provisions Related to Welding," filed April 15, 1984 (at 5-8), and incorporate that discussion herein, by reference.

### B. CASE's Allegations Regarding Safety Factors Should Be Summarily Dismissed

CASE alleges that there is an insufficient factor of safety to support Applicants' (and industry's) practice of not expressly considering each small, potential load in design calculations. In its Proposed Findings, CASE lists seven specific loads of concern, each of which has either been resolved by this Board or is/will be addressed in other Motions for Summary Disposition.<sup>1</sup> CASE also presents alleged factual information not contained in the record which leads CASE to conclude that the factors of safety associated with code margins regarding seismic design are only on the order of 1.4 and "for nuclear pipe supports at

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<sup>1</sup> These alleged loads are loads from (1) section property changes, (2) oversized holes for Richmond bolts, (3) seismic acceleration, (4) frequency differential, (5) friction in U-bolts, (6) thermal expansion due to a LOCA (resolved by Board Order of July 6, 1983) and (7) restraining moments with trunions. CASES's Proposed Findings at I-16.

Comanche Peak are less than the factors of safety for the AISC Code used to design warehouses." CASE'S Proposed Findings at I-15.

While Applicants' would contend that this figure is higher, the attached Affidavit illustrates that even assuming approximately 1.4 is accurate for factors of safety associated with Code margins, there is still a substantially larger margin of safety associated with design of such structures for seismic events, the predominant design consideration for virtually all piping and pipe supports. Affidavit at 4. Specifically, margins of safety have been conservatively quantified for seismic design to be on the order of 46. Affidavit at Table 2, p. 43. Moreover, numerous other margins of safety which were not readily quantifiable were neglected in this overall figure. (See, e.g., Affidavit at 5, 12, 18, 22, 34, and 38.) The significant margin of safety in seismic design is evident in the studies of major structures which have withstood earthquakes far greater in magnitude than called for by design. Id. at Attachment 2.

Loads from sources other than a seismic event (i.e., static or other dynamic loads) are generally well known, and in many instances the impacts of such loads are tested, e.g., hydrostatic tests, hot functional tests, and operational tests. See, e.g., Chapter XIV of the FSAR for a list of tests that have been and

will be conducted. Affidavit at 3. The conservatively quantified margins associated with other dynamic and static loads are at least 5.0 and 1.68, respectively. Affidavit at 41.

The attached Affidavit is not designed to expressly quantify all conservatisms; some cannot be quantified. However, even with the overly conservative approach used in the Affidavit, the factors of safety regarding design of piping and pipe supports are substantial, and clearly support industry's practice (and Applicants') of not expressly considering small, potential loads in design of such structures. Indeed, Applicants are not aware of any specific piping sections or pipe supports where CASE has alleged that the specific loads not expressly factored into the design individually, or in combination, exceed the margins of safety inherent in the codes (see Affidavit at 36), much less the conservative total margins of safety noted above.

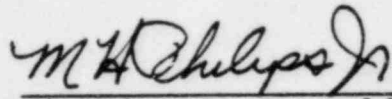
Accordingly, no genuine issue of material fact exists with respect to these issues, and the Board should find that the Applicants are entitled to judgment as a matter of law.



IV. CONCLUSION

For the reasons set forth above, Applicants request that the Board grant Applicants' motion for summary disposition.

Respectfully submitted,



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