

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

APPLICANTS' STATEMENT OF MATERIAL FACTS
AS TO WHICH THERE IS NO GENUINE ISSUE
REGARDING STABILITY OF PIPE SUPPORTS

1. Instability of a particular pipe support, when viewed in isolation from the piping system, is of little or no significance. The relevant consideration is whether the entire piping system and associated supports are stable when considered as a single system. (Finneran Affidavit at 5-7.)

2. The stability of piping systems is not explicitly addressed in piping analyses. However, it is not necessary to do so because through the normal design process the piping designers achieve a system which will stay within specified deflection limits and, thus, will be incapable of the instabilities at issue here. (Finneran Affidavit at 7.)

3. The support designer is responsible for assuring the stability of each pipe support as part of the piping and support system, and may rely on the presence of the pipe to a stabilizing

effect. This responsibility is delineated in ASME Code Section NF, Appendix XVII, Section XVII-2221(a), to which all support design organizations are committed. (Finneran Affidavit at 8.)

4. Applicants promptly identified and acted to correct potential instabilities of pipe supports at Comanche Peak in the normal course of the design process. Potential instability of box frame supports with single struts or snubbers (which resulted from modifications made in the field) were initially identified by ITT engineers on site in May 1981 (prior to Mr. Doyle or Mr. Walsh working at Comanche Peak), at which time a hold was placed on approval of further designs of this type of support. There is no evidence that Mr. Doyle or Mr. Walsh raised the question of stability of these supports with their supervisors or other of Applicants' personnel who were in a position to act on their concern. (Finneran Affidavit at 9-11, 29.)

5. Applicants reviewed all supports in Unit 1 and common areas and identified 12 frames that fall in the category of box frames with single struts or snubbers. There are about 17,000-18,000 safety-related supports in Unit 1 and common areas at Comanche Peak. (Finneran Affidavit at 12-13.) Modifications made to these supports (all initiated prior to February 23, 1983) will prevent rotation of the frame around the pipe and thus remove the mechanism through which the potential rigid body instability could occur.

6. CASE incorrectly asserted that NCRs should have been issued against these supports. This potential deficiency was identified as part of the normal design review process. Applicants do not use NCRs to document deficiencies identified in that process. In addition, irrespective of this fact, the Component Modification Cards (CMCs) that were written which created the potential instability do not constitute an official design change until they have been reviewed and approved by the responsible design organization. In this instance, the potential instability was identified prior to approval of the CMCs, and in fact as part of the review cycle. Thus, the question of whether further documentation of this potential deficiency should have been issued is not relevant. (Finneran Affidavit at 14.)

7. With respect the question of the stability of the main steam supports, ongoing discussions were in progress in September 1982 as to whether there was a need for corrective action on this type of support. These discussions revolved around the impact of various effects on the supports' stability. Because the design practice for U-bolts used as clamps on single strut supports is to have the U-bolts cinched down (as is done with a clamp) there was no need to impose any restrictions on design practices pending ultimate resolution of these questions. Applicants decided in late 1982 to modify these supports to improve their stability because the modifications were relatively simple and readily accomplished. (Finneran Affidavit at 15-18.)

8. Applicants identified 15 of these types of supports in Unit 1 and common areas. Thirteen of these supports are mainsteam supports. Three of the mainsteam supports were actually modified during initial installation in such a way that the potential instability was removed. These modifications occurred prior to September, 1982. The remaining ten mainsteam supports were modified between January, 1983 and June, 1983. The two non-mainsteam supports were modified in October and December, 1982. The modifications consisted of snugging the U-bolts or adding supplementary structural steel that would prevent the rotation of the U-bolt clamp assembly. (Finneran Affidavit at 18.)

9. CASE has raised allegations concerning the stability of two other categories of supports, namely, double strutted frames and single struts or snubbers with snug U-bolts. Applicants' review of the double strutted frames shows that the friction forces associated with these frames are sufficient to prevent the frame from sliding down the pipe and, thus, to maintain stability. Applicants' extensive tests and analyses of the single struts or snubbers with snug U-bolts demonstrate that these supports will function as pipe clamps and prevent rotation of the clamp assembly around the pipe. Thus, this category of supports is also stable. (Finneran Affidavit at 19-21.)

10. Almost all Unit 1 and common pipe supports (17,000-18,000) have been vendor certified to date. A total of 27 supports for all of Unit 1 and common area safety-related supports were potentially unstable.¹ (Finneran Affidavit at 22.)

11. None of the potentially unstable supports identified by CASE present a safety concern. As explained above, two of the four categories of allegedly unstable supports were, in fact, stable. (Finneran Affidavit at 19-21.) As for the other two categories; the potential instabilities were detected in the normal course of the design process, and appropriate measures were implemented to address the condition. Because these conditions were detected in the normal design process, no concern is raised for the adequacy of that process. (Finneran Affidavit at 9-18.) In addition, even if the mainstream supports were considered to be unstable and incapable of carrying seismic loads, there are no adverse safety implications. (Finneran Affidavit at 27-28.)

12. Forces and moments, including static and dynamic loads, provided by the pipe design organizations at the node points of these supports were considered by the pipe support design groups. (Finneran Affidavit at 22-24.)

¹ This figure is consistent with Mr. Finneran's representation to the Board in an affidavit filed June 3, 1983, that only 21 of 13,681 supports certified at that time had been identified as potentially unstable.

13. The conditions which could cause instability of the supports in question are unlikely to occur. (Finneran Affidavit at 24.)

14. Gibbs & Hill was provided as-built drawings of each pipe support along with as-built survey information that was marked on the drawings. It was not Gibbs & Hill's responsibility, as piping analyst, to review these supports for stability. (Finneran Affidavit at 25.)

15. In that the support designer is required to maintain support stability by the ASME Code, there is no need for separate design guidelines regarding stability. (Finneran Affidavit at 28-29.)