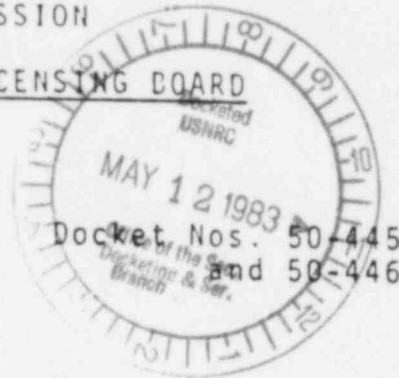


5/9/83

RELATED CORRESPONDENCE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSIONBEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

APPLICATION OF TEXAS UTILITIES
GENERATING COMPANY, ET AL. FOR
AN OPERATING LICENSE FOR
COMANCHE PEAK STEAM ELECTRIC
STATION UNITS #1 AND #2
(CPSES)SUPPLEMENTARY SURREBUTTAL TESTIMONY OF
JACK DOYLE, WITNESS FOR INTERVENOR CASE

1 Q: Mr. Doyle, is there additional surrebuttal testimony which you
2 wish to file regarding the document received by CASE today which has been
3 marked as CASE Exhibit 790, a drawing of "R. B. Internal Struct. Equip.
4 Supports & Fdns., Sh. 1, 2323-SI-0550?

5 A: Yes, there is. In doing the analysis on the Gibbs and Hill
6 calculations for the upper lateral restraint (see CASE Exhibit 761C),
7 I used the same numbers as Gibbs and Hill sheet Nos. 32 and 33, Case 1
8 and 2, for walls "A" and "B" (see CASE Exhibit 758). However, on receipt
9 of the letter from Applicants' counsel dated May 6, 1983, with attachment
10 (drawing of upper lateral restraint - see CASE Exhibit 790 attached), I
11 find that I must revise my estimate of the problem.

12 The centerline of the upper lateral restraint is 858'6" (see Section
13 14-14, Drawing SI-0550, CASE Exhibit 790). The location of the upper
14 lateral restraint relative to the steam generator may be found on Figures
15 1.2-8, 1.2-13, 1.2-14, 1.2-18, 1.2-19 and 1.2-20 of Section 1.2 of Appli-
16 cants' FSAR (Applicants Exhibit 3 - we are attaching copies as CASE Exhibits

DS03

1 799, 800, 801, 802, 803, and 804, respectively, for the convenience of the
2 Board). From these drawings, the stiffness of walls "A" and "B" are much
3 higher than was shown on the calculations.

4 For example, in the case of wall "A," the calculations show 42 inches
5 as the wall thickness. From the cross-sectional drawing listed above, this
6 appears to be less than half the thickness that actually exists (about 8
7 times the stiffness used by Gibbs and Hill). Beyond this, the point of
8 connection for the lateral restraint beam (on the reactor cavity wall)
9 is beneath the missile shield. Any failure on the far side of the wall
10 could result in missiles falling on top of the reactor head about 30 feet
11 below.

12 Wall "B" offers even more interesting information of differences
13 between the Gibbs and Hill numbers and the numbers to be found in the real
14 world. Wall "B" for Case I indicates the wall thickness to be 45 inches
15 and Case II indicates the thickness as 33 inches. The cross section at
16 elevation 860'0" shows the beam to be reacting directly into the floor
17 slab and at elevation 861'4" (the opposite side) shows the beam to be
18 reacting partially into the major platform slab (due to stiffness differentials
19 between the wall and slab, this is effectively as if the load were totally
20 reacted by the platform slab).

21 The error in the fundamentals used in the calcs is now compounded
22 by the errors in stiffness as used in the calcs by Gibbs and Hill. I cannot
23 clarify this particular error due to a lack of drawing which would provide
24 the dimensions required to determine the actual stiffnesses of the various
25 walls. There is an additional problem which lacks sufficient information
26 for elaboration and that is the existence of walls perpendicular to wall
27 "B" in proximity to the reaction point for the upper lateral restraints.