

4/28/83

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

83 MAY -2 110:35

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)Docket Nos. 50-445
and 50-446SUPPLEMENTARY SURREBUTTAL TESTIMONY OF
JACK DOYLE, WITNESS FOR INTERVENOR CASE

1 Q: Mr. Doyle, was there additional information which you wish to supply
2 regarding the documents forwarded on 4/26/83 (CASE EXHIBIT 761, your ...
3 Surrebuttal Testimony)?

4 A: Yes. First of all, on page 8 of CASE Exhibit 761C, last sentence,
5 should read: "The force in the beam varies little with varying stiffness
6 of the stiffer beam."

7 Then, the computer output contained several minor and generally
8 offsetting errors. (This is CASE Exhibit 761A.) The information received
9 by phone was misinterpreted in three areas: (1) Young's modulus was in-
10 terpretted as 27,450,000; the correct value for the Gibbs and Hill drawing
11 is 27,650,000. (2) The CTE (Coefficient of Thermal Expansion) was inter-
12 pretted as 7E-6; the correct value for the Gibbs and Hill drawing is 6.623E-6.
13 (3) The temperature was interpreted as 210°F; the correct figure as used
14 by Gibbs and Hill is 220°F. A revised computer run is attached (CASE Ex. 762A).

15 Q: Are there drawings already in the record which deal with the upper
16 lateral support or the moment resisting support?

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1 A: With regard to the upper lateral support, there are none of which
2 I am aware. With regard to the moment resisting support, there are several
3 drawings in the record of this and another moment resisting restraint, but
4 the particular restraint in question is the configuration that existed until
5 at least the last day I worked at the site and therefore does not contain
6 the kicker or brace as depicted in the Gibbs and Hill analysis. For the
7 drawing in question, they can be found in CASE Exhibit 669B (attachments to
8 Jack Doyle deposition/testimony), pages 9Q, 9R, 9S, and 9T.

9 Another moment restraint which was not analyzed can be found
10 in CASE Exhibit 669B, pages 9U, 9V, and 9W. The planned configuration of the
11 unanalyzed beam is in the lower left-hand corner of 9W.

12 Q: Is there anything further you would like to add regarding this
13 matter?

14 A: Not at this time.
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4/27/83 - 11:50:44

CASE EXHIBIT 762A

*** SYSTEMS PROFESSIONAL STRESS - PROGRAM NO. 16.1 REV-2010.01 ***

STRUCTURE - UPPER-LAT RES (UPPERLAT.BM)

TYPE PLANE FRAME

NUMBER OF JOINTS 4 * STATISTICS * TRACE

NUMBER OF MEMBERS 3

LIST MEMBER PROPERTIES IN INCHES

NUMBER OF LOADINGS 1

NUMBER OF SUPPORTS 2

UNITS KIPS INCH

TABULATE REACTIONS FORCES DISPLACEMENTS

JOINT COORDINATES

1 0 0 S * 2 10 0 * 3 172 0 * 4 182 0 S

UNITS KIPS INCHES

MEMB PROP PRIS AX 357 IZ 1. * BM.

2

MEMB PROP PRIS AX 14.82 IZ 1. * WALL B

1

MEMB PROP PRIS AX 2.83 IZ 1. * WALL A

3

MEMBER INCIDENCES

1 1 2 * 2 2 3 * 3 3 4

UNITS KIPS INCHES

CONSTANTS E 27650. ALL

UNITS KIPS INCH

LOADING NO. 1

MEMBER TEMP CHANGES .000006623

2 220

SOLVE

PROBLEM CORRECTLY SPECIFIED, EXECUTION TO PROCEED.

STRUCTURE - UPPER LAT RES (UPPERLAT.BM)

(UNITS IN INCHES AND KIPS)

MEMBER PROPERTIES

MEMBER	LENGTH	AREAS			MOMENTS OF INERTIA			CONSTANT
		X-AXIS	Y-AXIS	Z-AXIS	X-AXIS	Y-AXIS	Z-AXIS	
1	10.00	1.5E	1 0.0E	0			1.0E	0 2.8E 4
2	162.00	3.6E	2 0.0E	0			1.0E	0 2.8E 4
3	10.00	2.8E	0 0.0E	0			1.0E	0 2.8E 4

STRUCTURE - UPPER LAT RES (UPPERLAT.BM)

(UNITS IN INCHES AND KIPS)

LOADING NO. 1

MEMBER FORCES

MEMBER	JOINT	AXIAL FORCE	SHEAR FORCE	MOMENT
1	1	1399.930	0.000	0.00
	2	-1399.930	0.000	0.00
2	2	1399.930	0.000	0.00
	3	-1399.930	0.000	0.00
3	3	1399.920	0.000	0.00
	4	-1399.920	0.000	0.00

APPLIED JOINT LOADS, FREE JOINTS

JOINT	FORCE X	FORCE Y	MOMENT Z
2	-0.001	0.000	0.00
3	-0.002	0.000	0.00

REACTIONS, APPLIED LOADS SUPPORT JOINTS

JOINT	FORCE X	FORCE Y	MOMENT Z
1	1399.930	0.000	0.00
4	-1399.920	0.000	0.00
SUM	0.003	0.000	

FREE JOINT DISPLACEMENTS

JOINT	X-DISPLACEMENT	Y-DISPLACEMENT	ROTATION
2	-0.0342	0.0000	0.0000
3	0.1789	0.0000	0.0000

STRUCTURE - UPPER LAT RES (UPPERLAT.BM)

PLANE FRAME

3 MEMBERS

4 JOINTS

1 LOADINGS

27 LINES INPUT

55 RECORDS USED

0.8 MINUTES RUNTIME

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD '83 MAY -2 A10:36

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)

Docket Nos. 50-445
and 50-446

CERTIFICATE OF SERVICE

By my signature below, I hereby certify that true and correct copies of
Supplemental Surrebuttal Testimony of Jack Doyle, Witness for Intervenor.

CASE (CASE Exhibit 762 and Attachment 762A)

— have been sent to the names listed below this 28th day of April, 1983,
by: Express Mail where indicated by * and First Class Mail elsewhere.

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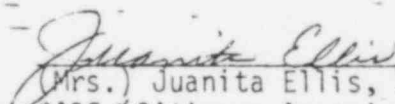
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