IMPELL CORPORATION

PROJECT INSTRUCTION

TITLE: RIGOROUS ANALYSIS OF TRAIN "C" ELECTRICAL CONDUITS

INSTRUCTION NUMBER: 0210-052-006

CLIENT: Texas Utilities Generating Company

PROJECT: Comanche Peak Steam Electric Station - Evaluation of Train C Conduit

JOB NUMBER(S): 0210-052-1355

DIVISION(S) Advanced Engineering

REV.	ISSUE DATE	PREPARED	APPROVED
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DESCRIPTION OF REVISIONS

REVISION	REMARKS
0	Original Issue
1	Complete revision to text and appendices

TABLE OF CONTENTS

1.0 INTRODUCTION

This instruction provides guidelines for analyses of the 2 inch and under Train C conduit systems at Comanche Peak Electric Generating Station (CPSES) Units 1 and 2. The Train C electrical conduit evaluation program has resulted from the CPSES Technical Review Team, Issue 1.c, review of non-category 1 structures interaction with category 1 structures. The intent of the Train C Program is to show that the plant, as currently configured, is in compliance with Regulatory Guide 1.29 [3] and CPSES FSAR Section 3.2.1.2 [6].

2.0 OBJECTIVE

The objective of these analyses is to perform elastic analysis of the 2 inch and under Train C Conduit systems in order to calculate support loads and conduit displacements. Results from these analyses will be used, under separate instructions, in support of the current Level 2, Type 6 criteria and to analyze conduit systems as part of Screen Level 5 of the Train C Conduit Evaluation Program [2].

3.0 SCOPE

This instruction applies to 2 inch and under Train C conduits at CPSES Unit 1, Unit 2, and common areas.

4.0 ANALYSIS PROCEDURE

The conduit analysis will consider the effects of deadweight and seismic (SSE) loadings. The resulting stresses and displacements shall be evaluated using the procedures stated in this document and conduit support loads shall be evaluated in accordance with separate project instructions [14]).

In general, computer analysis will be performed using SUPERPIPE, Version 19A [12] or later. On a case-by-case basis hand calculation may be performed, using conservative methods, to evaluate conduit stress and support loads.

Deviations from the following procedure may be permitted provided approval is obtained from the Project Engineer and the deviations are documented and justified in the problem file.

4.1 Design Input

4.1.1 Problem definition. A total of 25 samples, given in Table 1, shall be analyzed for verification of the current Level 2, Type 6 walkdown criteria; each problem contains one reference (or "analyzed") conduit and its supports. Other conduit systems to be analyzed shall be defined by the Level 5 Train C conduit screening procedures.

4.1.2 Geometry. The analyzed conduit, its supports, and all ganged (tributary) conduits and supports will be walked down by Impell personnel. All geometry, hardware type, support types, and other field information will be provided and/or confirmed by the Impell walkdowns.

Walkdown information files are provided for each problem. These are logged in the project QA file and are maintained by the project clerk. (Note: For the "criteria verification" problems, more than one walkdown has been performed on some problems. For this workscope, be sure to use only those identified as "As-Built Verification Walkdown" requested by RFI's No. AB01 through AB25; all are dated 5/5/86 or later.)

Additional as-built information may be requested through Project Instruction 0210-052-002 for "criteria verification" problems and Project Instruction 0210-052-004 for "Screen Level 5 problems."

4.1.3 Conduit support stiffness. Conduit support stiffnesses will be provided by the support group along with effective support weights to be considered. Appendix B contains descriptions of typical support types for Train C Conduit.

4.2 Conduit Geometry

The conduit geometry shall be developed using the latest walkdown information as described above.

For all analyses under the scope of this procedure, the coordinate system will use global X along plant north (along center line of Unit 1 reactor building to Unit 2) and global Y as up. Right-hand rule applies for global Z.

For modeling purposes, acceptable dimensional tolerances are $\pm$ twice the nominal diameter (2D) and angular variances up to 22.5°, providing that the $\pm$ 2D tolerance is met.

4.3 Boundary Criteria

4.3.1 Problem boundaries of the criteria verification problems shall be as defined by the original Gibbs & Hill isometric (Table 1) or by the Screen Level 5 walkdown, as appropriate.

4.3.2 Additional conduits, or "tributary conduits," which share the same tier of a support with the "analyzed" conduit, shall be modeled up through the third support both upstream and downstream of the analyzed support. The minimum number of supports must be seven on the tributary line, including the ganged support. Alternatively, conservative break points may be made on a case-by-case basis.

4.3.3 Models whose size exceeds the available computer core may be reduced by breaking up the model and/or utilizing the procedure discussed in Section 4.4.6.1 to combine cross-sections, where applicable.

To break the problem up into smaller parts, an overlap technique may be applied to reduce the model to a workable size. See Figure 3. The following is a list of acceptable boundaries in order of preference to break up the problem:

- Grouted penetration (anchor).
- Two supports which are types 1 (12" cantilever or less), 5, and/or 6.
- Five supports if other than mentioned above.

The technique for developing the reduced model is to first create the large model. This model should be error free and through the data check phases before proceeding. Then, with duplicate copies on the computer file, delete the scope beyond each boundary region. The support summary shall only provide loads for those supports outside the "overlap region." See figure 3. The test of the adequacy of the overlap region is that support loads, displacements and conduit stress will be within 20 percent at the center of the region, as calculated from both sides of the overlap area.

Results of the reduced model will be summarized in the usual manner (see section 4.7). Combinations of loads or displacements between reduced models will not be performed. Instead analysis will be done on each reduced model separately with the boundaries described above such that valid results will be calculated for all areas independently from the large model.

4.4 Modeling Specifics

4.4.1 Conduit Bends. Bends in conduit shall be modeled as curved pipe (CRVP) with the minimum bend radii given in Table A.2, Appendix A.

4.4.2 LBD's and LB's. These are conduit components which allow the conduit to make a "sharp" 90° change in direction. Since they are relatively rigid components, they shall be modeled as a continuation of the straight pipes on either side, forming a 90° "kink" in the conduit run. Appropriate weights shall be applied as given in Table A.4, Appendix A.

4.4.3 BC's. These are in-line conduit components which shall be modeled as a single point at its center with a lumped weight. BC weights are given in Table A.4, Appendix A.

4.4.4 Flexible Conduit. Model as a lumped weight only by assuming 50 percent of the total flexible conduit weight at the connection to the rigid conduit. Conservatively, use the weight of rigid conduit in Table A.3, Appendix A.

4.4.5 Junction Boxes. In-line junction boxes (supported by Conduit) will be modeled as a flex (FLXC) element with stiffness properties from PI-0210-052-003 [14]. Suspended junction boxes (typically supported by a trapeze) will be modeled with two FLXC elements of appropriate stiffnesses, and the support attached to the center node. Two equal length elements will extend on either side of the center junction box support. See Figure 2. A lumped weight, as given in Table A.6, Appendix A, will be applied to the above cases.

Where junction boxes are supported termination points, they shall be modeled as 3 way supports with the stiffnesses provided by the support group.

4.4.6 Tributary Conduits. Tributary conduits are those additional conduits which share the same tier (typically a P1001 Unistrut member) with the analyzed conduit. As specified in 4.3.2, they are modeled up to the third support away from the analyzed support in both upstream and downstream directions.

At each "shared" support point, a rigid element is modeled between the analyzed conduit and the tributary conduit(s). Then only one support, which shall be attached to the analyzed conduit, is modeled for all conduits at shared

support points. To model the rigid element, use the SUPERPIPE "Miscellaneous Member" option with properties corresponding to 30" diameter and 10" thickness pipe. To avoid any unrealistic moments developing in the analyzed conduit at these support points, the member is modeled 0.01 feet long and moment end releases are specified on the tributary side of the element. See Figure 1.

This technique allows for the independent rotation of the tributary conduit through each support and hence for independent dynamic response. Where this rotation affects the model's dynamic stability, the tributary element will be rotationally fixed on a case-by-case basis.

4.4.6.1 Where similar size tributary conduits run parallel to the analyzed conduit and share the same tier, they may be modeled as one conduit with a combined cross-section and mass (especially useful in the case described in Section 4.3.3). The following criteria must be met when using this approach:

- Cross sections of conduits are identical.
- Span lengths are identical.
- No component differences exist.

The procedure for combining cross-sections and mass is described below:

The SUPERPIPE "SECP" option should be used to explicitly input the combined cross-sectional area, combined flexural, and combined torsional inertias. This will yield correct stiffness values while using the original cross-section for stress computations. Table A.1 in Appendix A provides these values.

4.4.7 Multi-Level Trapeze Supports. For multilevel trapeze supports, all conduits on the same tier level (beam) will be modeled in accordance with Section 4.4.6 above. Tributary conduits on other tier levels will not be explicitly modeled but, the sum of their tributary (1/2 span) weights shall be lumped to the support of the reference conduit.

For the more complex trapeze supports (type 8), which may have many tributary conduits, lumping of their masses without considering their stiffness contribution may underpredict the system's frequency. The modeling procedure may thus be

conservative for calculating conduit displacements but may not be conservative for calculation of support loads. Therefore, on a case-by-case basis, the earthquake spectra may need to be modified as detailed in Section 4.6.2.1. This will be done per the instructions of the Project Engineer and shall be documented in the calculation file.

4.4.8 Component and Material Properties. The conduit shall be modeled with the cross sectional properties of schedule 40 pipe [16] and the weights specified in Table A.3, Appendix A. No stress intensification factors (SIFs) shall be applied (i.e., SIF=1.0).

The material selected shall be SA106, Grade B whose properties closely resemble the actual material specified in Reference [9].

4.4.9 Supports. Support stiffness and effective support weights will be provided by the support group [14]. For most conduit support types (except types 5 and 6) the effective support mass will be modeled as a lumped weight at the conduit/support node (The purpose of the effective weight is to account for the mass of the support which influences system frequency).

4.5 Static Analysis

4.5.1 Gravity Analysis

Gravity loading will be performed using the conduit and cable weights specified in Appendix A, Table A.3 [7]. Any other attached weights, such as fire protection material or conduit components, must also be included in the analysis.

4.6 Dynamic Analysis

4.6.1 Dynamic Properties and Mode Combinations

The mode shapes and frequencies shall be calculated up to a cut off of 33 Hz. Additional mass points shall be generated to sufficiently capture the dynamic response of the conduit system. An automatic feature in SUPERPIPE can be used for this purpose.

The response spectrum loading shall utilize simple excitation. The 10 percent closely spaced mode grouping method ("GRUP" in SUPERPIPE) shall be utilized as defined under Regulatory Guide 1.92. A missing mass correction for modes above 33 Hz shall also be made.

4.6.2 Response Spectra

The seismic response shall be evaluated for the Safe Shutdown Earthquake (SSE) using enveloped response spectrum analysis method. Response spectra should be selected to envelope the conduit and conduit support termination points in the mathematical model. (Note that in the Reactor Building, Train C Conduit may be attached to both the Containment and the Reactor Internal Structure and, if so, will require that both spectra be enveloped.) The Impell SPECTIA program may be used for enveloping spectra. Specify the LOG option in SUPERPIPE to interpolate values in the digitized spectra. Project specific 7 percent damping SSE spectra are provided in Appendix D.

4.6.2.1 As mentioned in Section 4.4.7, the earthquake spectra may require modification for those problems which contain the type 8 multilevel trapeze supports. The modeling technique of omitting some of the tributary conduits from the model may move the system frequency from the rigid side of the peak to the flexible side, causing the response to correspond to a lower acceleration value.

For this reason, and unless it can be justified otherwise, the final enveloped response spectra for the 3 directions shall be modified to extend the magnitude of the peak acceleration from the peak frequency down to the zero frequency. See Figure 4.

4.7 Load and Displacement Summaries

From Section 4.5 and 4.6, a gravity analysis and safe shutdown earthquake analysis will be performed. In order to maintain consistency and obtain the desired results in the computer printout, the SUPERPIPE input shall use the format for load combinations and support summary given in Figure 5.

4.8 Analysis Results

4.8.1 Displacement Check

Displacements for combined gravity and seismic loads on the analyzed conduit shown to be less than 1/2" in any orthogonal direction are acceptable. For areas in the conduit system which exceed the yield stress, displacements must be scaled to account for increased displacements due to yielding as prescribed in calculation ROTC-35 [13]. Any displacements larger than 1/2 inch shall be identified in the problem file for evaluation by the support group for potential interaction with adjacent structures. The displacement check is not required on tributary conduits.

4.8.2 Stress Elasticity Check

The combined stress for gravity & seismic loading shall be checked to show that it is below yield. The purpose of this check is not to qualify the conduit stress, but to ensure that the displacement check above (Section 4.8.1) is based on elastic behavior of the conduit. This check shall be done for the analyzed conduit only.

Stress allowables and stress combination methods used by SUPERPIPE in the ASME Code Compliance check are not applicable to conduit evaluation. An approach similar to the AISC code will be utilized. Since the only purpose of this check is to verify elastic behavior of the conduit, compliance with all of the AISC stress checks is not required.

Based on a TUGCo Design Criteria for "Seismic Category I Electrical Conduit Systems" [7], SSE allowable stresses for conduit may be 1.6 times the OBE allowable stress and the allowable flexural and axial tensile stress shall not exceed the yield stress. From AISC Code, 8th Edition [17] for axial tension and bending and using the 1.6 factor:

$$\frac{f_a}{0.60(1.6)F_y} + \frac{f_{bx}}{1.6\,F_{bx}} + \frac{f_{by}}{1.6\,F_{by}} \leq 1.0 \qquad (1)$$

where: f_a = axial stress, psi
f_{bx} = bending stress about X axis, psi
F_{by} = bending stress about Y axis, psi
F_y = yield stress, psi
F_{bx} = allowable bending stress about X axis, psi
F_{by} = allowable bending stress about Y axis, psi

Since conduits are circular in shape, a SRSS of the bending moments can be substituted for absolute sum. Also, $(0.60)(1.6)F_y$ equals about $1.0\ F_y$ and, for circular cross sections, $(1.6)F_{bx} = (1.6)F_{by}$ also equals about $1.0F_y$. Therefore, the above equation for SUPERPIPE application becomes:

$$\frac{F}{A} + \frac{(My^2 + Mz^2)^{1/2}}{Z} \leq S \text{ (allowable stress = } F_y) \quad (2)$$

where: F = axial force, lbs.
A = conduit cross sectional area, in^2
M_y = Y axis bending moment, psi
M_z = Z axis bending moment, psi
Z = Section modulus, in^3
S = Allowable stress of 25,000 psi minimum. Refer to Table 5.5, Appendix A, for actual allowables based on conduit size.

If the stresses are combined as shown in equation (2) above and they are within allowables, then the system is elastic. (Note that the axial force "F" will generally be small for conduit analysis. Therefore, the SUPERPIPE combined stress "M/Z" [SRSS of M_x, M_y, and M_z] given in the computer output can be used as a quick check of general stress levels.)

6.0 DOCUMENTATION

The analysis developed for this scope will be documented in a calculation file. All information pertinent to the analysis (including walkdown) shall be clearly documented in the Calculation/Problem File. See Appendix C for sample documentation forms to be used in the calculation file.

7.0 QUALITY ASSURANCE

Conduit analysis shall be performed in accordance with the Impell Quality Assurance Program.

8.0 REFERENCES

1. Deleted.

2. Impell Project Instruction 0210-053-001, Rev.4, 7/17/86, "Multilevel Screening Criteria For Train C Conduit (Two Inch and Under)," Job #0210-053-1355.

3. USNRC Regulatory Guide 1.29, "Seismic Design Classification," Revision 3, U.S. Nuclear Regulatory Commission, Washington, D.C., 1973.

4. Gibbs and Hill Refined Building Response Spectra, 2323-046-3465, Rev. 2.

5. ASME Boiler and Pressure Vessel Code, Appendix XVIII, American Society of Mechanical Engineers, NY, NY, 1983.

6. Texas Utilities Generating Company, Final Safety Analysis Report, Chapter 3, Amendment 54, issued January 1985.

7. Texas Utility Generating Company, Comanche Peak Steam Electric Station Unit 2, "Design Criteria for Seismic Category I Electrical Conduit System," Rev. 4, SAG CP2-12/85, dated 12/11/85.

8. TUSI 2323-S-0910, Sheet LS-5d, Rev. 0, "Conduit Support Locations for Suspended Runs from Walls and Ceilings."

9. Gibbs and Hill Design Change Authorization DCA 21532, Revision 0.

10. Project Instruction 0210-052-004, Rev 1, "Train C Conduit As-Built Walkdown."

11. M.W. Kellog Co., "Design of Piping Systems," John Wiley & Sons, Inc. 1967.

12. SUPERPIPE User's Manual, Version 19A, Impell Corporation.

13. Calculation ROTC-35, "Qualification of Train C Conduit Yielding Systems" (in preparation).

14. Project Instruction 0210-052-003, "Seismic Evaluation of Train C Conduit Supports." Rev. 1, dated August, 1986.

15. TUSI 2323-S-0910, Sheet LS-5a, Rev. 3, "Conduit Support Location and Suspended Runs."

16. Unistrut General Engineering Catalog, No. 10R, Page 113, "Rigid Steel Conduit Dimension & Weights."

17. American Institute of Steel Construction (AISC), "Manual of Steel Construction," 8th Edition.

18. Impell Calculation ROTC-27, "Train C Conduit Spectra Verification," Rev. 0, Job #0210-052-1355.

19. TUGCo drawing number 2323-S-0910, sht. G-1F, Rev. 11.

TABLE 1

Train C Conduits Analyzed for Criteria Development

Sample No.	Sample No.
5E	63R
9E	69E
16R	88R
18R	91E
25R	109R
30R	114R
33E	115E
36E	115R
42E	125E
53E	130E
54E	136R
57R	144R
61E	

FIGURES

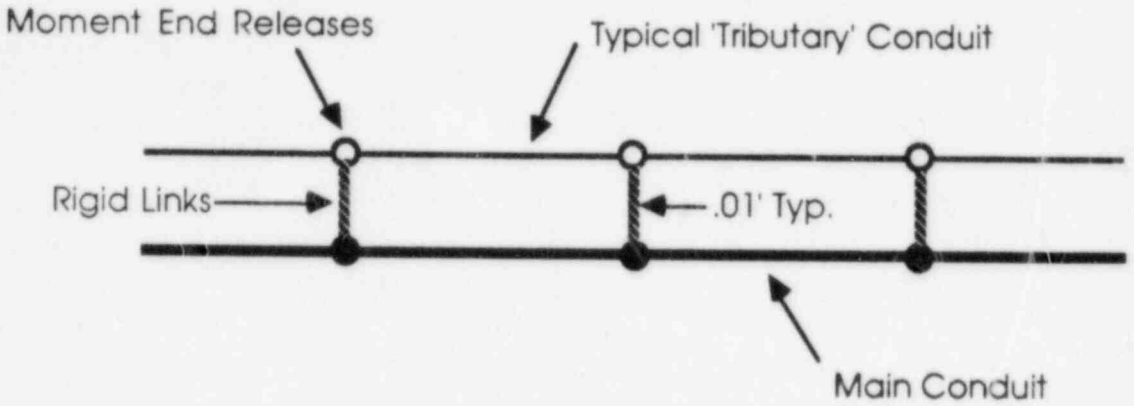

FIGURE 1

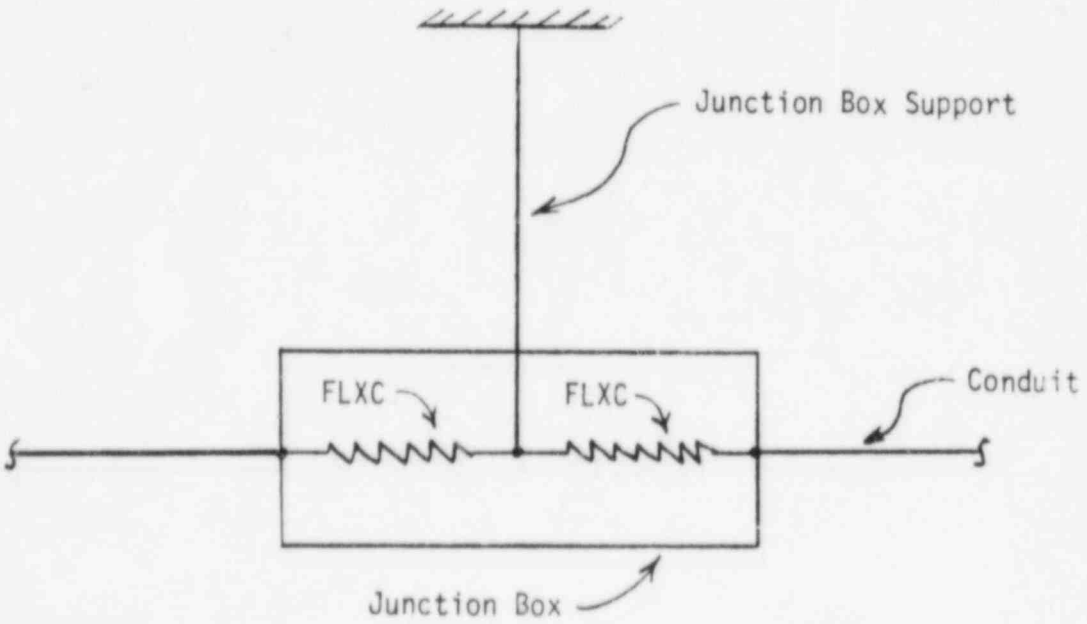

FIGURE 2

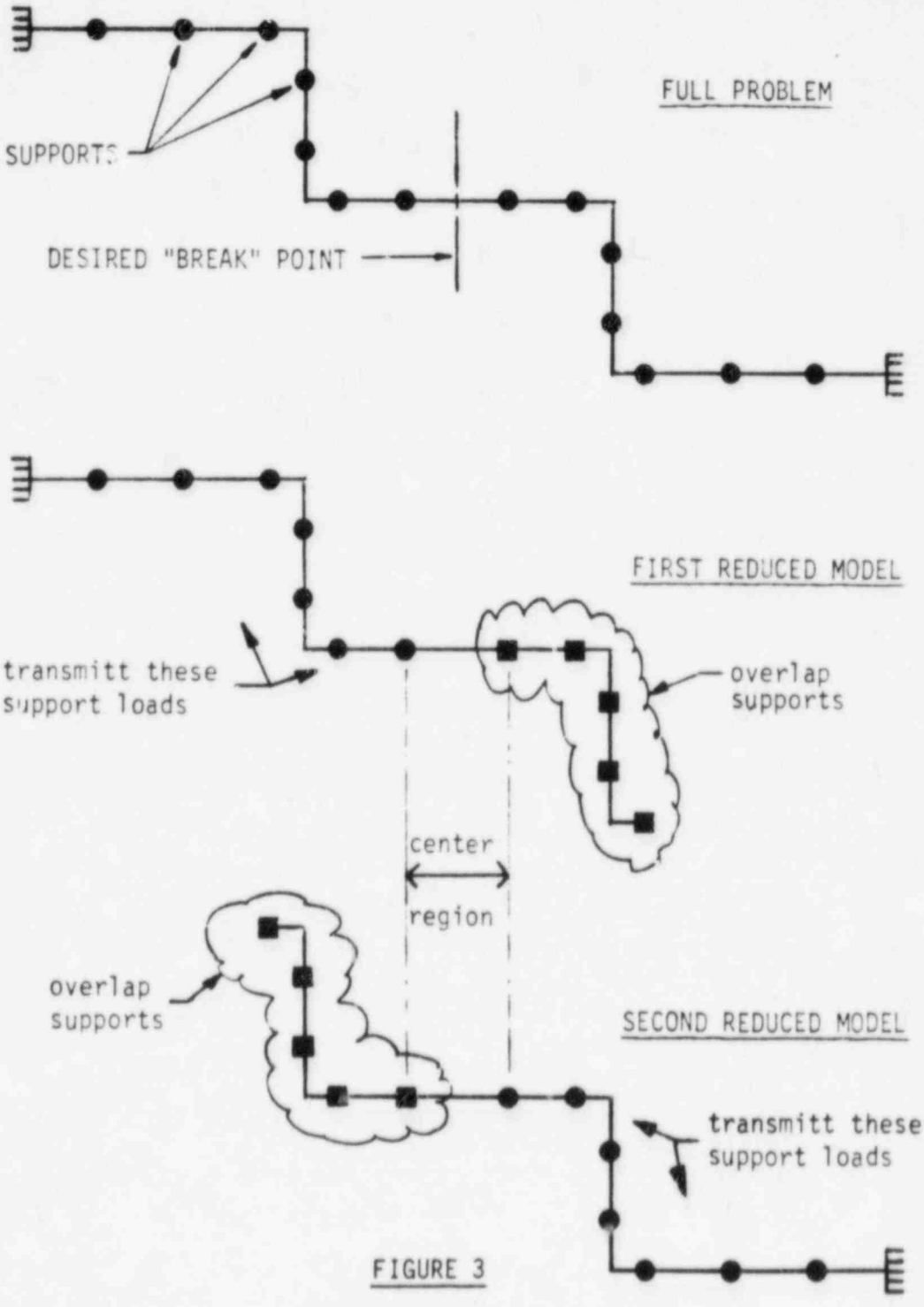

FIGURE 3

Reducing Large Models

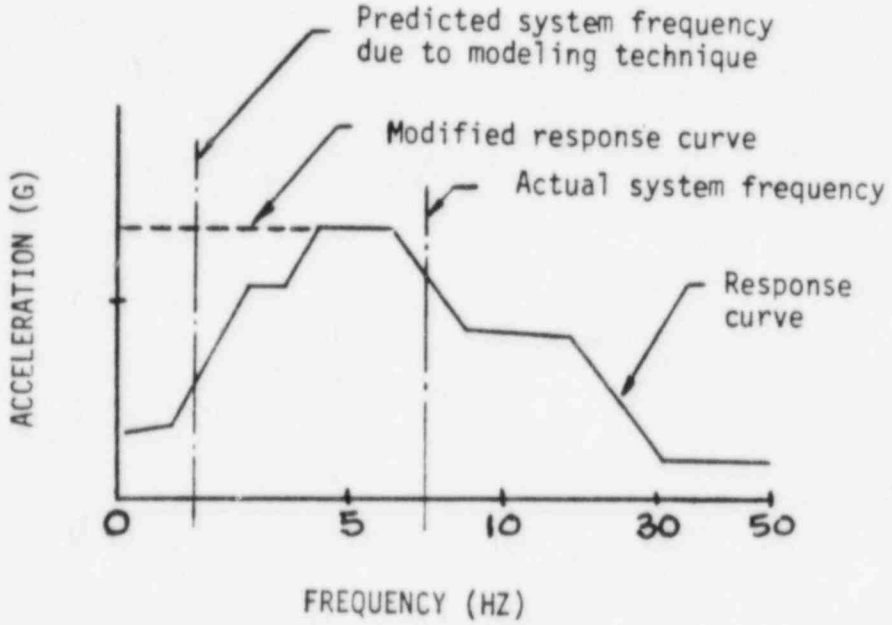

FIGURE 4

Modified Response Spectra Curve for Analysis of Problems with Type 8 Supports

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 GRAV      NOPR      DSUM  GRAV
  SSE      NOPR      ASUM  ISSE
  G+S      NOPR      DSUM  GRAV                    SSE   1.0
  G-S      NOPR      DSUM  GRAV                    SSE  -1.0
*GSSE      PRNX      ENVS  G+S                     G-S
*SUPP FULL DETL COMM OLDC                                    SUPPORT LOAD SUMMARY
                 ***************************************************
                 * LOAD SET                COMBINATION DEFINITION *
                 * ********                ********************** *
                 * GRAV                    GRAVITY                *
                 * SSE                     SEISMIC SSE INERTIA    *
                 * DESC                    GRAVITY+SSE            *
                 ***************************************************
 GRAV PSUM GRAV                                                    GRAVITY
  SSE DFLT      SSE                                                SSE INERTIA
*DESC DFLT GRAV  SSE                                               GRAV+SSE
```

FIGURE 5

Example of Loads Combination and Support Summary
Input Format for SUPERPIPE

APPENDIX A
CONDUIT AND COMPONENT PROPERTIES

TABLE A.1

Properties of Conduits

Conduit Size	Cross Section Area A_x in^2	Effective Shear Area A_y, A_z, in^2	Torsional Inertia I_{xx} in^4	Flexural Inertia I_{yy}, I_{zz} in^4
1/2"	.250	.125	.0342	.017'
3/4 "	.333	.167	.0711	.0370
1"	.494	.247	.1748	.0874
1-1/2"	.800	.400	.620	.3100
2"	1.07	.535	1.332	.6666
2-1/2"	1.70	.850	3.060	1.530

Reference 11, 12

TABLE A.2

Conduit Curved Pipe
Bending Radii

Conduit Size	Standard Bending Radius	Minimum Bending Radius
3/4"	5 1/2"	4 1/2"
1"	6 3/4"	5 1/4"
1 1/4"	9"	7 1/4"
1 1/2"	11"	8 1/4"
2"	1' 1"	9 1/2"
2 1/2"	1' 4 1/2"	1' 1/2"
3"	1' 7 3/4"	1' 3"
3 1/8"	1' 11"	1' 5 1/2"
4"	2' 2 1/2"	1' 8"
5"	2' 8 3/4"	2' 6"

Reference 15

TABLE A.3

Weights per Linear Foot

Diameter of Conduit (in)	Weight of Conduit & Cables (lbs/ft)
1/2	1.0
3/4	1.5
1	2.0
1 1/4	3.0
1 1/2	4.0
2	5.0
2 1/2	8.0
3	13.0
4	19.0
5	23.0

Reference 15

TABLE A.4

WEIGHT OF VARIOUS CONDULETS

CONDUIT DIAMETER (IN)	MANUFACTURERS, CONDULET CATALOG NO. AND WEIGHTS (lbs)			
	CROUSE AND HINDS			
	LB	LBD-1100	C - (*)	BC - (*)
1/2	.96	1.4	1 (17)	--
3/4	1.24	2.2	1.3 (27)	--
1	1.9	2.7	1.7 (37)	3.2
1-1/2	3.4	11.0	5.5 (57)	6
2	5.2	11.6	5.6 (67)	7

CONDUIT DIAMETER (IN)	APPLETON		
	LB(*)-M	LBD(*)-M	C(*)-M
1/2	.77 (50)	1.10 (50)	.79 (50)
3/4	1.03 (75)	1.64 (75)	1.13 (75)
1	1.41 (100)	2.39 (100)	1.64 (100)
1-1/2	4.07 (150)	7.95 (150)	3.96 (150)
2	7.53 (200)	9.31 (200)	7.18 (200)

* Model Number

TABLE A.5

CONDUIT YIELD STRESSES

Conduit Size (in.)	Yield Stress (psi)
2	25,300
1-1/2	27,200
1-1/4	28,454
1	30,000
3/4	27,700
1/2	27,500

Reference 9

TABLE A.6

JUNCTION BOX WEIGHTS

Junction Box Size	Weight (lbs)	Junction Box Size	Weight (lbs)
60x18x18	352	30x18x18	113
60x42x30	399	30x18x6	77
60x30x24	298	30x12x12	79
60x30x10	219	30x12x8	69
30x24x10	193	24x24x18	110
30x12x12	149	24x24x12	92
54x36x12	234	24x18x12	79
48x12x18	267	24x18x6	63
48x36x24	274	24x12x12	65
48x30x12	189	24x10x10	56
48x18x12	144	24x6x4	37
48x18x10	135	18x18x12	62
48x8x8	92	18x18x6	49
36x30x20	221	18x12x12	51
36x30x12	147	18x12x16	40
36x30x10	139	18x8x8	37
36x24x24	174	18x6x4	28
36x24x8	114	12x12x6	28
36x18x12	111	12x12x4	25
36x12x12	93	12x6x6	21
36x6x6	89	12x4x4	17
30x24x24	151	8x8x6	17
30x24x10	104	8x8x4	15
30x21x8	97	6x6x4	10

Reference 8.

IMPELL CORPORATION

TITLE: RIGOROUS ANALYSIS OF TRAIN "C" ELECTRICAL CONDUITS		
NUMBER: 0210-052-006	REVISION: 1	PAGE A7 OF A9

Conduit Outlet Bodies

Replacement Baskets

Crouse-Hinds

1/2–1"

1 1/4–4"

LBD

Size	Cat. #	Size	Cat. #	Size	Cat. #
1/2	LBD1100	1 1/4	LBD4400	3 1/2	LBD9900
3/4	LBD2200	1 1/2	LBD5500	4	LBD10800
1	LBD3300	2	LBD6600	5	LBD012
		2 1/2	LBD7700	6	LBD014
		3	LBD8800		

Application:
LBD bodies are installed at 90° bends in rigid conduit to:
- act as pull outlets for conductors that are still due to large size or type of insulation
- make 90° bends in conduit system, allowing straight pull in either direction
- provide for conduit service entrance to buildings
- provide for conductor entrance to motors
- provide access to wiring for maintenance and future system changes

Features:
LBD bodies have:
- cover openings on an angle permitting conductors to be pulled straight thru hubs from either direction
- domed covers to permit easy conductor bends (relieves strain on insulation)
- cover and gasket furnished
- taper tapped hubs with integral bushings

Standard Materials:
- Ferrous

Standard Finishes:
- Cadium zinc electroplate covered with aluminum cellulose lacquer

Options:

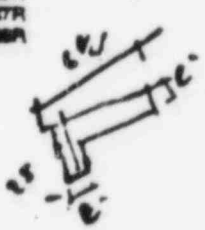
Description	Suffix to be Added to Cat. #
Material—1" to 4" sizes, copper-free aluminum	SA
Finish—Zero-free epoxy enamel	SX22
Hot dip galvanize	Detailed information on request

Compliances:
- UL Standard: 514
- Fed. Spec.: W-C-586a

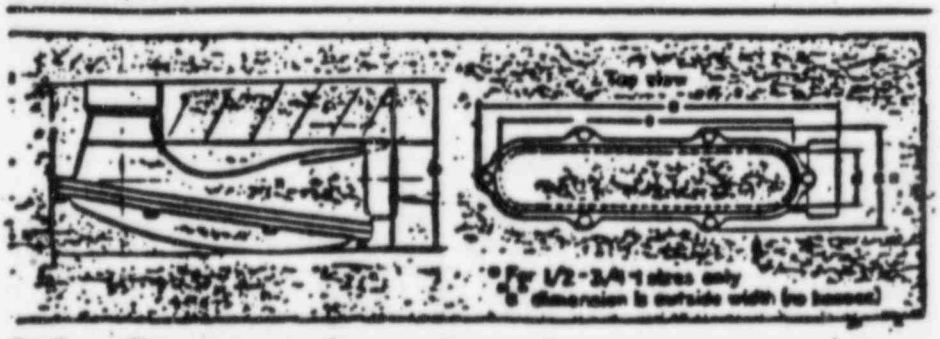
Replacement Gaskets for Above Sizes

Rubber

Size	Cat. #	Size	Cat. #	Size	Cat. #
1/2	GASKB80R	1 1/4	GASKB83R	3 1/2	GASKB89R
3/4	GASKB81R	1 1/2	GASKB84R	4	GASKB89R
1	GASKB82R	2	GASKB84R	5	GASKB87R
		2 1/2	GASKB80R	6	GASKB88R
		3	GASKB80R		



Dimensions



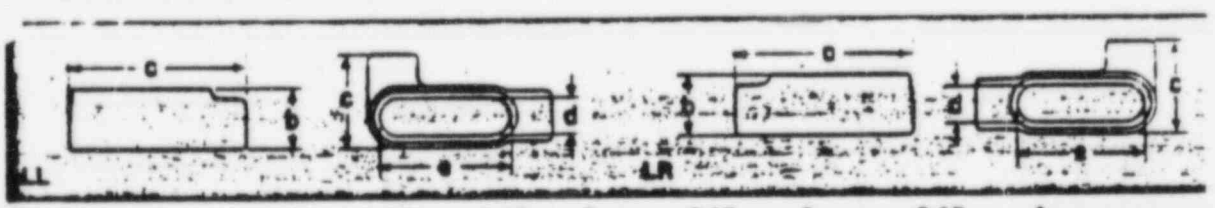
Cat. #	Size	A	B	C	D	E
LBD1100	1/2	3	2 5/16	1 5/16	1	3 11/32
LBD2200	3/4	3 1/4	2 5/8	1 9/16	1 1/4	4 17/32
LBD3300	1	3 1/4	2 15/16	1 13/16	1 1/2	4 11/32
LBD4400	1 1/4	4 5/8	4 1/4	3 1/2	1 13/16	7 3/16
LBD5500	1 1/2	5 7/16	5 7/16	4 5/8	2 5/8	10 7/8
LBD6600	2	5 7/16	5 7/16	4 5/8	2 5/8	10 7/8
LBD7700	2 1/2	6 11/16	6 5/16	5 5/8	3	13 3/4
LBD8800	3	7 11/16	6 5/16	5 5/8	3	13 3/4
LBD9900	3 1/2	8 13/16	11 7/8	7 3/8	4	21
LBD10800	4	8 13/16	11 7/8	7 3/8	4	21
LBD012	5	9 7/16	12 1/2	8 5/8	5 7/8	23
LBD014	6	10 1/2	13	8 5/4	7	23

Crouse-Hinds

Condulet® Conduit Outlet Bodies

Dimensions

Size	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Form 7 LB										
a	4 9/16	5 3/16	6	6 1/2	7 1/8	8 1/8	10 1/2	10 1/2	12 11/16	12 11/16
b	2 1/4	2 1/2	2 7/8	3 5/16	3 11/16	4 1/4	5 1/8	5 7/8	6 9/16	7 1/16
c	1 3/8	1 9/16	1 3/4	2 3/16	2 7/16	3	4 1/4	4 1/4	5 1/4	5 1/4
d	15/16	1 1/8	1 3/8	1 3/4	1 15/16	2 7/16	3 9/16	3 9/16	4 1/2	4 1/2
e	3 3/16	3 13/16	4 1/2	5	5 7/16	6 3/8	8 3/8	8 3/8	10 1/4	10 1/4
Form 8 LB										
a	4 15/16	5 9/16	6 15/32	7 17/32	9 1/8	11	13 15/16	13 15/16	16 7/8	16 7/8
b	2 7/32	2 7/16	2 13/16	3 11/32	4 1/32	4 13/16	6 1/8	6 1/2	7 9/16	7 13/16
c	1 3/8	1 9/16	1 3/4	2 3/16	2 3/4	3 3/4	5	5	6 1/4	6 1/4
d	1	1 3/16	1 3/8	1 3/4	2 1/8	3	4 1/4	4 1/4	5 7/16	5 7/16
e	3 5/16	3 15/16	4 9/16	5 5/16	6 1/2	8 9/16	10 7/8	10 7/8	13 7/16	13 7/16
Mark 9 LB										
a	4 19/32	5 1/4	6 3/32	7 1/32	7 3/4	10 1/32	13 15/16	13 15/16	16 7/8	16 7/8
b	2 1/8	2 13/32	2 27/32	3 15/32	3 3/4	4 15/32	6 1/8	6 1/2	7 9/16	7 13/16
c	1 3/8	1 9/16	1 3/4	2 3/16	2 1/2	3 3/16	5	5	6 1/4	6 1/4
d	1 3/16	1 3/8	1 1/2	1 15/16	2 1/4	2 7/8	4 1/4	4 1/4	5 7/16	5 7/16
e	3 5/16	3 15/16	4 9/16	5 5/16	6	8 1/16	10 7/8	10 7/8	13 7/16	13 7/16



Size	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Form 7 LL & LR										
a	4 9/16	5 3/16	6	6 1/2	7 1/8	8 1/8	10 1/2	10 1/2	12 11/16	12 11/16
b	1 3/8	1 5/8	1 7/8	2 5/16	2 9/16	3 1/8	3 5/8	4 3/8	4 7/8	5 3/8
c	2 1/4	2 7/16	2 3/4	3 3/16	3 9/16	4 1/8	5 3/4	5 3/4	6 15/16	6 15/16
d	15/16	1 1/8	1 3/8	1 3/4	1 15/16	2 7/16	3 9/16	3 9/16	4 1/2	4 1/2
e	3 3/16	3 13/16	4 1/2	5	5 7/16	6 3/8	8 3/8	8 3/8	10 1/4	10 1/4
Form 8 LL & LR										
a	4 15/16	5 9/16	6 15/32	7 17/32	9 1/8	11	13 15/16	13 15/16	16 7/8	16 7/8
b	1 7/16	1 11/16	1 15/16	2 3/8	2 25/32	3 9/16	4 7/16	4 13/16	5 11/16	5 15/16
c	2 5/32	2 5/16	2 5/8	3 5/32	4	5	6 11/16	6 11/16	8 1/8	8 1/8
d	1	1 3/16	1 3/8	1 3/4	2 1/8	3	4 1/4	4 1/4	5 7/16	5 7/16
e	3 5/16	3 15/16	4 9/16	5 5/16	6 1/2	8 9/16	10 7/8	10 7/8	13 7/16	13 7/16
Mark 9 LL & LR										
a	4 19/32	5 1/4	6 3/32	7 1/32	7 3/4	10 1/32	13 15/16	13 15/16	16 7/8	16 7/8
b	1 3/8	1 5/8	1 7/8	2 1/2	2 3/4	3 7/16	4 7/16	4 13/16	5 11/16	5 15/16
c	2 1/8	2 3/8	2 5/8	3 3/32	3 7/16	4 1/8	6 11/16	6 11/16	8 1/8	8 1/8
d	1 3/16	1 3/8	1 1/2	1 15/16	2 1/4	2 7/8	4 1/4	4 1/4	5 7/16	5 7/16
e	3 5/16	3 15/16	4 9/16	5 5/16	6	8 1/16	10 7/8	10 7/8	13 7/16	13 7/16

Conduit[s]
Conduit
Outlet
Bodies

Accessories
Page 1F-11

Crouse-Hinds

Application:

Bodies are installed in conduit systems to:
- act as pull outlets for conductors that are stiff due to large size or type of insulation
- provide the longer openings needed when pulling large conductors
- Prevent sharp bends and kinks in large conductors (protects insulation during installation)
- provide ample openings for splices and taps
- provide access to wiring for maintenance and future system changes

Features:

Mogul bodies have
- long openings
- provision for easy bends
- tapered hubs with straight bushings

Standard Materials:

malleable

Standard Finishes:

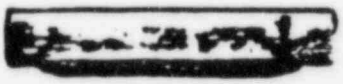
- Cadmium zinc electroplate covered with aluminum colorless lacquer

Options:

Description	Suffix to be added to Cat. #
Severe-service aluminum	SA
Powder-Corrosive epoxy enamel	SCC
Hot dip galvanize	Detailed information on request

Compliances:

- UL Standard 514
- Fed Spec : W-C-586a



BC

Mogul Series

Size	Cat. #
1	BC3
1 1/4	BC4
1 1/2	BC5
2	BC6
2 1/2	BC7
3	BC8
3 1/2	BC9
4	BC10

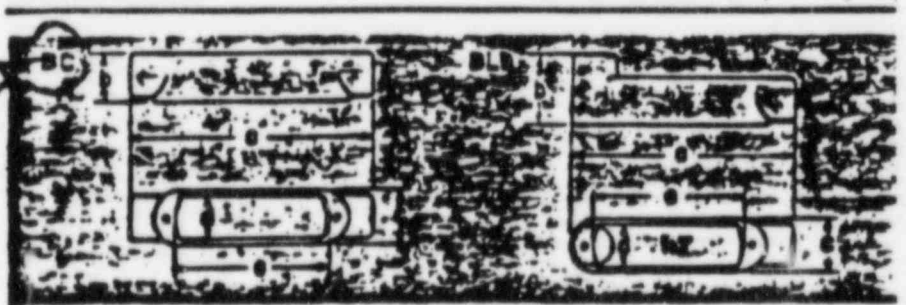
BLB

Mogul Series

Size	Cat. #
1	BLB3
1 1/4	BLB4
1 1/2	BLB5
2	BLB6
2 1/2	BLB7
3	BLB8
3 1/2	BLB9
4	BLB10

1" C : C 37 → 1: 1½
1 → 16
1½ → 35
2 → 71

Dimensions

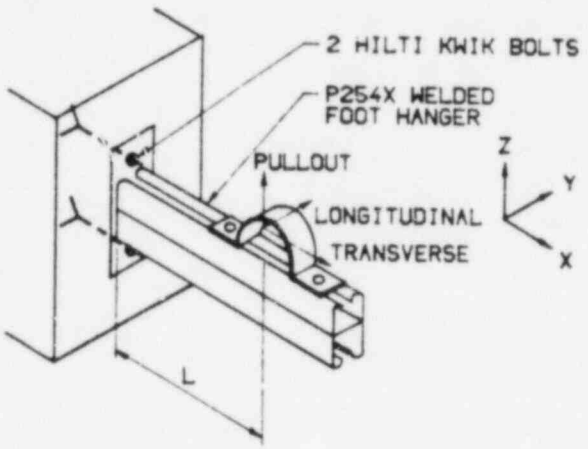


Size	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Mogul Series BC								
A	2 3/16	2 3/16	2 3/16	2 3/4	3 3/8	3 3/8	3 3/4	3 3/4
B	1 7/8	2 5/16	2 5/16	3 1/8	3 5/8	4 3/8	4 7/8	5 3/8
C	2 3/16	2 3/16	3	3	4 1/4	4 1/4	5 1/4	5 1/4
D	1 7/8	1 7/8	2 5/8	2 5/8	3 13/16	3 13/16	4 3/4	4 3/4
E	6	6	10	10	16	16	20	20
Mogul Series BLB								
A	2 13/32	2 13/32	3 11/16	3 11/16	5 3/32	5 27/32	6 1/2	7
B	2 27/32	2 13/32	3 5/8	4 3/16	5 3/32	5 27/32	6 1/2	7
C	2 3/16	2 3/16	3	3	4 1/4	4 1/4	5 1/4	5 1/4
D	1 7/8	1 7/8	2 5/8	2 5/8	3 13/16	3 13/16	4 3/4	4 3/4
E	6	6	10	10	16	16	20	20

2.4
5.12 6.63

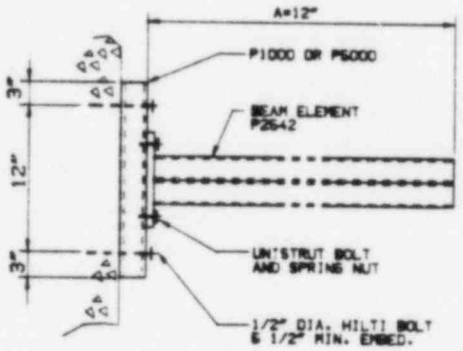
APPENDIX B

Typical Conduit Support Designs



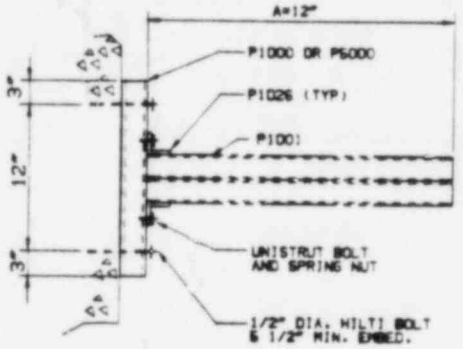
TYPE 1a SUPPORT

Cantilever Welded-Foot Hanger



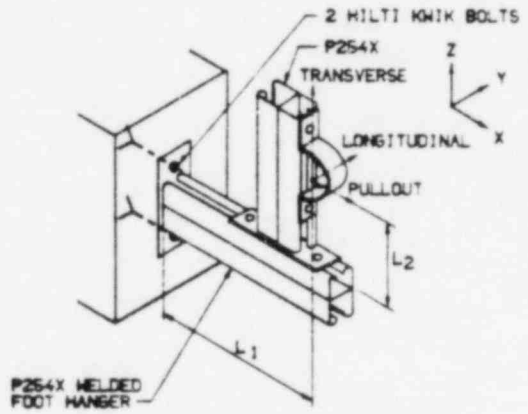
TYPE 1b SUPPORT

Cantilever Welded-Foot Hanger with Unistrut Header



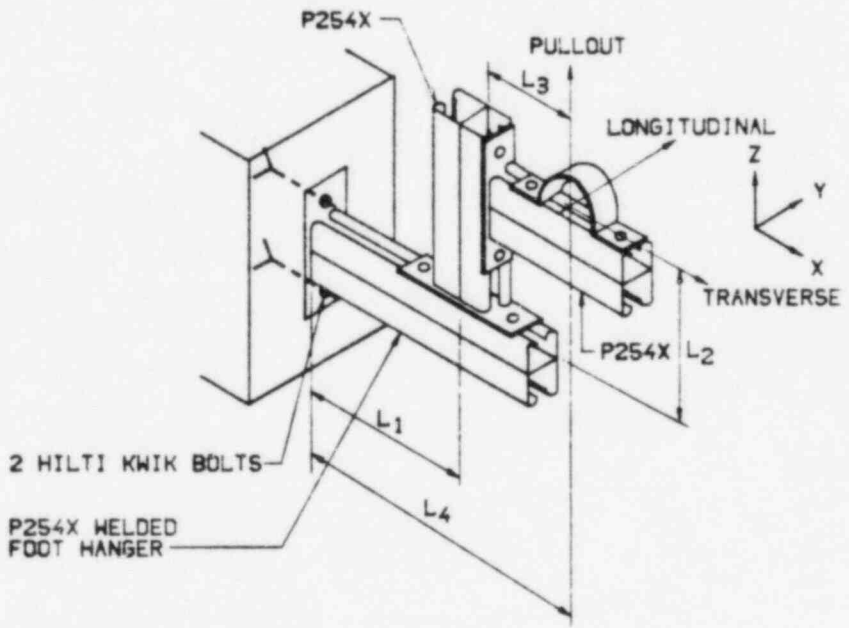
TYPE 1c SUPPORT

Cantilever Welded-Foot Hanger with Unistrut Header



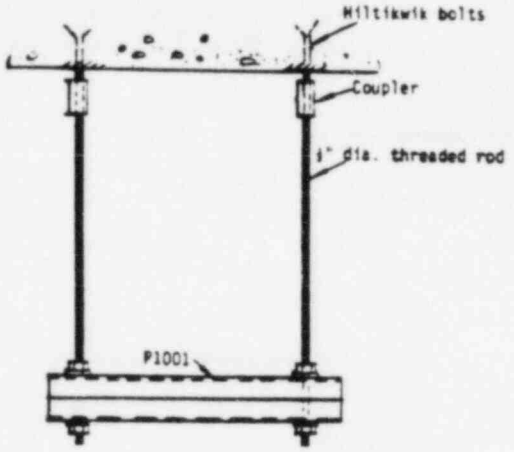
TYPE 2a SUPPORT

Double Cantilever Supports Using Welded-Foot Members



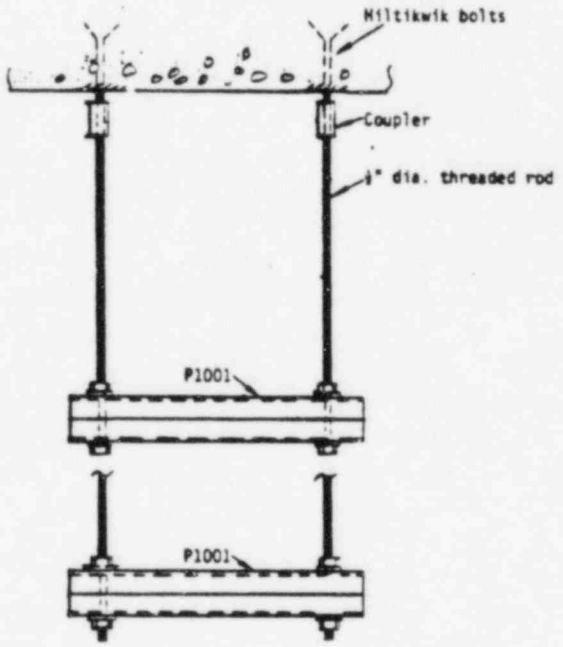
TYPE 3a SUPPORT

Triple Cantilever Support With Unistrut Header
Using Welded-Foot Members



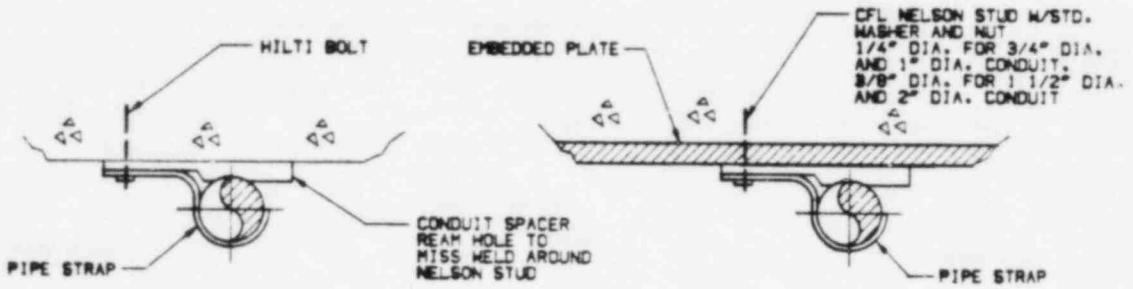
TYPE 4a SUPPORT - SINGLE TIER

Trapeze Support Attached to Ceiling or Underside of Beam



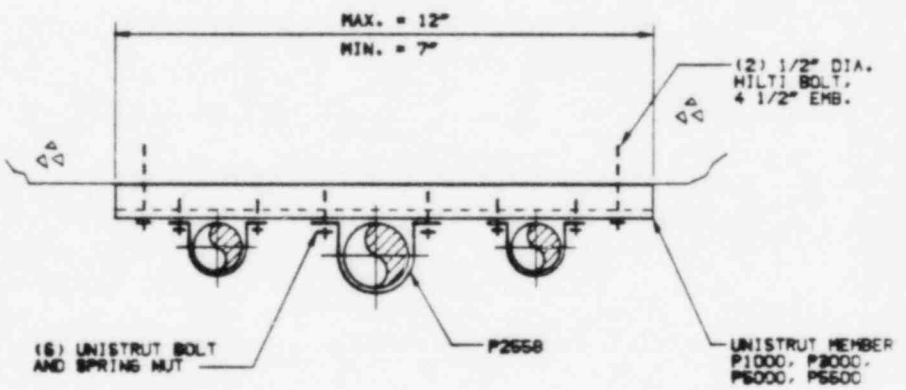
TYPE 4a SUPPORT - MULTI-TIER

Multi-Level Trapeze Support Attached to Ceiling or Underside of Beam



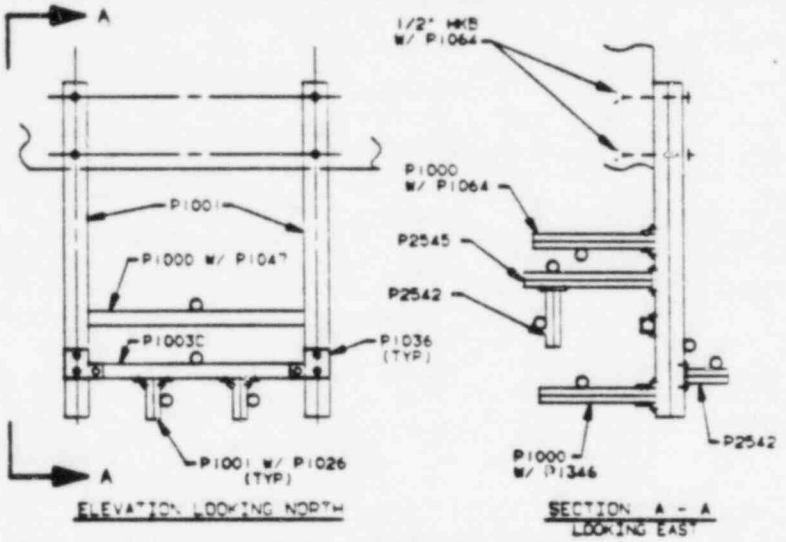
TYPE 5 SUPPORT

One-Hole Pipe Support Strap



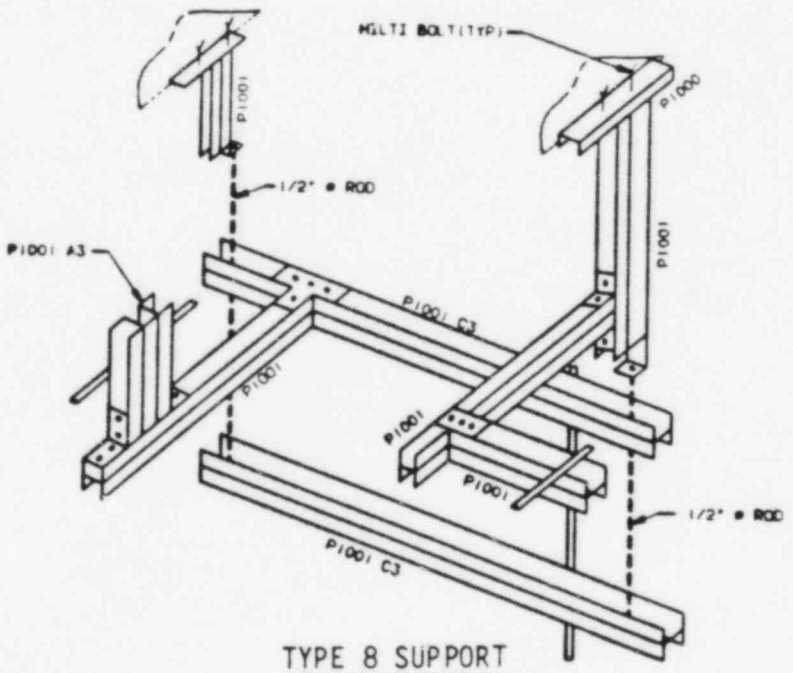
TYPE 6 SUPPORT

Two-Hole Clamp on Unistrut Header



TYPE 7 SUPPORT - SPECIAL SUPPORTS

Support Type 7 represent all supports which do not fall into any other categories. The support shown above is only an example.



TYPE 8 SUPPORT

Multi-Tiered Gang Supports with Rods

IMPELL CORPORATION

TITLE: RIGOROUS ANALYSIS OF TRAIN "C" ELECTRICAL CONDUITS		
NUMBER: 0210-052-006	REVISION: 1	PAGE C1 OF C17

APPENDIX C
SAMPLE CALCULATION FILE

CALCULATION/PROBLEM COVER SHEET

Calculation/Problem No: _____

Title: Train C Conduit

Client: TUGCo Project: Train C Conduit

Job No: 0210-052-1355

Design Input/References:

- Contained within

Assumptions:

- Contained within

Method:

- Contained within

Remarks:

REV. NO.	REVISION	APPROVED	DATE
0	Original Issue		

EDS 0004 9/79

TABLE OF CONTENTS

1.0 PROBLEM DESCRIPTION/LOADING

1.1 Conduit Component Modeling

Conduit is generally modeled using Impell's standard piping analysis procedures. Specific analysis/modeling procedures are summarized in the current revision of Project Instruction 0210-52-006 for job 0210-052-1355.

The following modeling procedures are applicable to the conduit analyzed in this problem:

1.1.1 Scope

1.1.2 Effective support mass of each support is modeled with the exception of type 5 finger clamps and type 6 unistrut supports.

1.1.3 Tributary conduits are modeled to sufficiently include dynamic effects on the analyzed support element. This includes modeling all tributary conduits which are "ganged" to the same beam (unistrut) as the analyzed conduit. For multilevel trapeze supports (type 4 and type 8), a lumped weight is modeled on the analyzed conduit at the support point equal to the tributary (1/2 span) weights of the conduits on the other tier levels.

1.1.4 Tributary conduits are modeled up to the third support away from the analyzed support in both downstream and upstream directions. The calculation given in reference [8.3] provides stiffnesses for the supports. Where tributary conduits run parallel to the main conduit and are ganged to the analyzed line, a miscellaneous member element is modeled between two lines at the support point.

1.1.5 Embedments (grouted penetrations) are modeled as rigid anchors in all six directions.

1.1.6 All conduit is modeled as schedule 40 pipe. Conduit is modeled assuming maximum fill of electrical wiring/cable as defined in Reference 8.1.

1.1.7 The material is SA106 B whose properties are close to those of the conduit as shown in the excerpt from DCA 21532, Rev. 0, (Ref. 8.7).

1.1.8 Bends in the conduit are modeled with minimum radii as defined in the project instructions.

1.1.9 LBDs and LBs are modeled as a continuation of the straight pipe on either side with a 90° "kink" and a lumped weight. Stiffness properties are the same as the attached conduit.

1.1.10 Junction Box stiffnesses are provided in PI-0210-052-003, Rev. 0, (Ref. 8.4). The weights are given in Appendix A to PI-0210-052-006, Rev. 0 [1]. These components are modeled as a "FLEX" component with the stiffness and weight properties, where the component is inline. Where the component is at the end of a run, a support is modeled with the stiffness properties of the junction box.

1.1.11 Couplings and pull sleeves (BC's) are not explicitly modeled since they have negligible stiffness effect on the system. Pull sleeves will have a lumped mass placed.

1.1.12 Flexible conduit is modeled as a lumped weight only. By assuming 50 percent of the total hose weight at each of the connection points.

1.2 Loading

1.2.1 Gravity loading is evaluated using fill percentages as provided in the project instruction.

1.2.1 Seismic loading is evaluated. The dynamic properties are calculated using SUPERPIPE for all modes below 33 hz. The 10 percent close mode grouping method is utilized, along with the missing mass correction for modes above 33hz in the standard manner.

For seismic loading, SSE response spectrum analysis with 7 percent damping is performed. Refined building response curves from Gibbs and Hill Calculation 2323-046-3465 (Ref. 8.5) are digitized and enveloped across all elevations which included analyzed and tributary run attachment points.

2.0 MATHEMATICAL MODEL OF ANALYSIS CONFIGURATION

See Next ___ pages.

2.1 Schematic

2.2 Stress Isometric

Signatures on this page represent concurrence with the next ____ pages.

3.0 INPUT DATA LISTING

See next ____ pages.

Signatures on this page represent concurrence with next ____ pages.

4.0 DISCUSSION OF ANALYSIS

5.0 ASSUMPTIONS

6.0 RESULTS

A) Elastic Behavior Check

Verify that all stresses on the "analyzed" conduit are in the elastic range using the following equation:

$$\frac{F}{A} + \frac{(M_Y^2 + M_Z^2)^{1/2}}{Z} \qquad F_Y \text{ (allowable stress)}$$

6.0 RESULTS (con't)

B) Displacement Check

B.1) Are displacements of the analyzed conduit(s) less than 1/2 inch? _____

If "No", circle the displacements on the following listing from the SUPERPIPE computer output.

B.2) Listing of Conduit Displacement
(Gravity + Seismic Load Case)

See next ___ pages.

6.0 RESULTS (con't)

C. Support Load Summary

See next ____ pages.

7.0 COMPUTER OUTPUT IDENTIFICATION

Computer Run Description/ Load Case	Computer Run Date/Time Indicator	Comments
GEOMETRY		
GRAVITY ANALYSIS		
DYNAMIC PROPERTIES		
SEISMIC ANALYSIS		
COMBINATIONS		
DISPLACEMENTS		
SUPPORT LOAD SUM.		

8.0 REFERENCES

8.1 Project Instruction 0210-052-006, Rev. 1, dated 8/22/86, "Rigorous Analysis of Train C Conduit."

8.2 Gibbs and Hill Calculation Number SCS-238C Set #5, Rev. 0, Impell Technical Input Number 37-0210-052-1355.

8.3 Stiffness Calculation for Train C Supports, Rev. 0, Impell Calculation Number _____.

8.4 Project Instruction 0210-052-003, "Evaluation of Train C Conduit Supports." Rev. 1, dated Aug., 1986.

8.5 Gibbs and Hill Refined Building Response Spectra, 2323-046-3465, Rev. 2.

8.6 Impell Walkdown RFI No. _____, (see Appendix C)

8.7 Gibbs and Hill Design Change Authorization DCA 21532, Revision 0, Impell Technical Input Number.

APPENDIX A

Stiffness Properties of Supports
and Other Components

APPENDIX B

Gibbs and Hill Building Response Curves

APPENDIX C

Impell Walkdown Package

See next ____ pages

APPENDIX D

GIBBS AND HILL BUILDING RESPONSE SPECTRA

D.1 Gibbs and Hill Spectra Curves [4]

COMANCHE PEAK SES RESPONSE SPECTRA CURVES (Sheet 1 of 2)
(SSE ONLY)

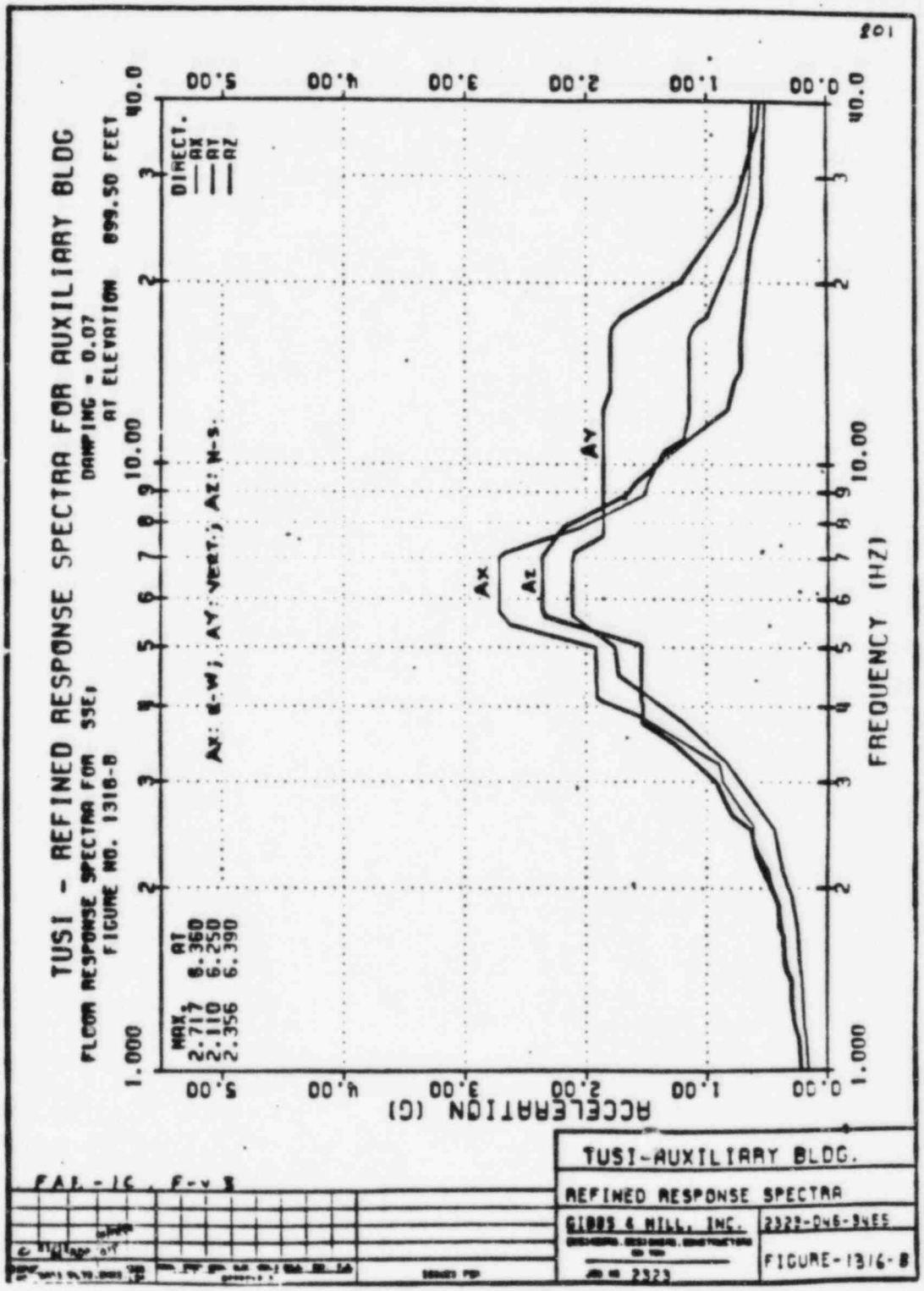
FIGURE	DATE	BUILDING*	ELEV. (FT)	DAMP. (%)	SSE
1316-B	11/84	Auxiliary	899.50	7	SSE
1317-B	11/84	Auxiliary	886.50	7	SSE
1318-B	11/84	Auxiliary	873.50	7	SSE
1319-B	11/84	Auxiliary	852.50	7	SSE
1320-B	11/84	Auxiliary	831.50	7	SSE
1321-B	11/84	Auxiliary	810.50	7	SSE
1322-B	11/84	Auxiliary	790.50	7	SSE
1256-B	11/84	Electrical	873.33	7	SSE
1257-B	11/84	Electrical	854.33	7	SSE
1258-B	11/84	Electrical	830.00	7	SSE
1259-B	11/84	Electrical	807.00	7	SSE
1260-B	11/84	Electrical	778.00	7	SSE
1401-B	11/84	Safeguards	896.50	7	SSE
1402-B	11/84	Safeguards	873.50	7	SSE
1403-B	11/84	Safeguards	852.50	7	SSE
1404-B	11/84	Safeguards	831.50	7	SSE
1405-B	11/84	Safeguards	810.50	7	SSE
1406-B	11/84	Safeguards	790.50	7	SSE
1407-B	11/84	Safeguards	785.50	7	SSE
1408-B	11/84	Safeguards	773.50	7	SSE

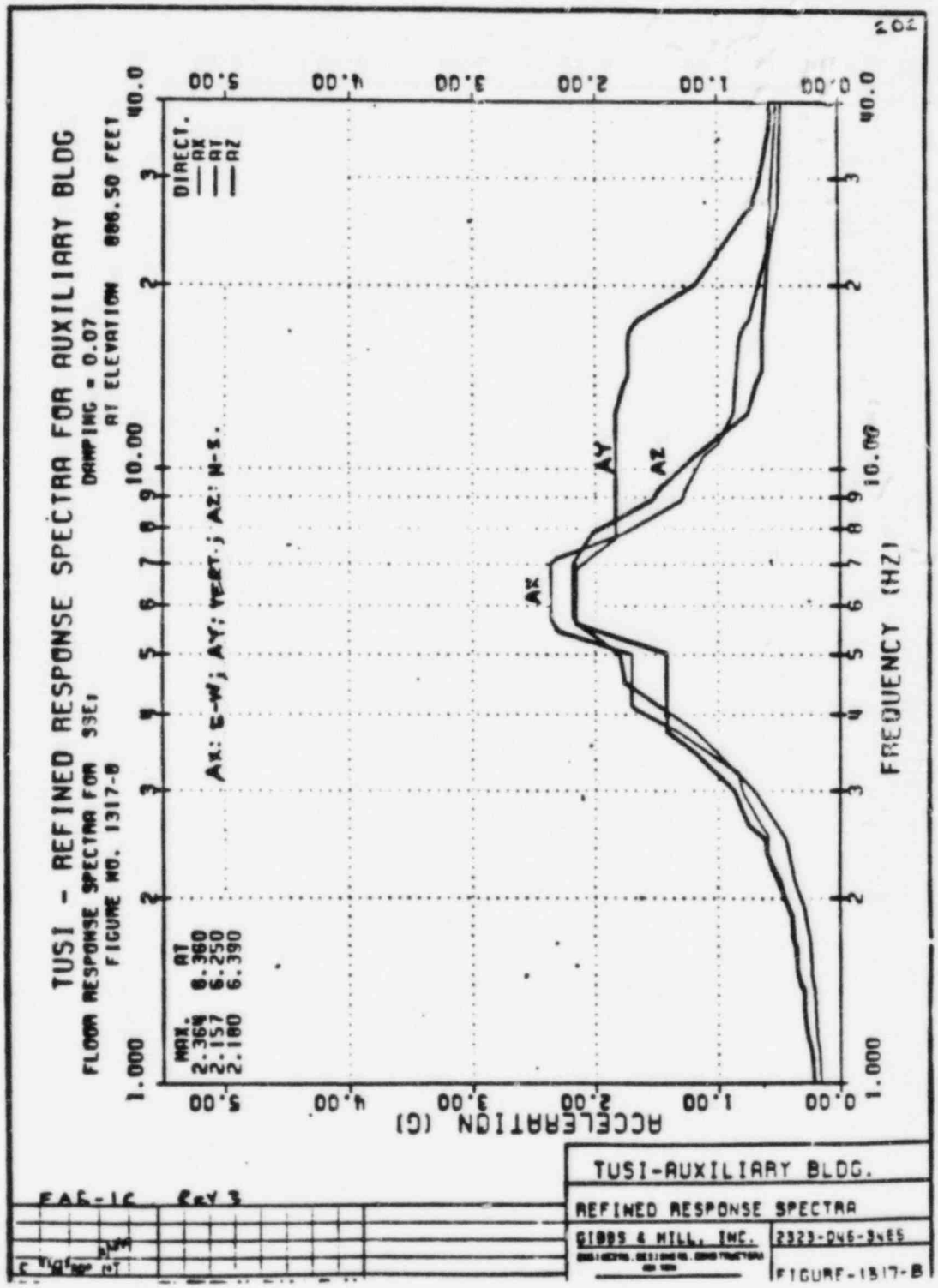
COMANCHE PEAK SES RESPONSE SPECTRA CURVES (Sheet 2 of 2)
(SSE ONLY)

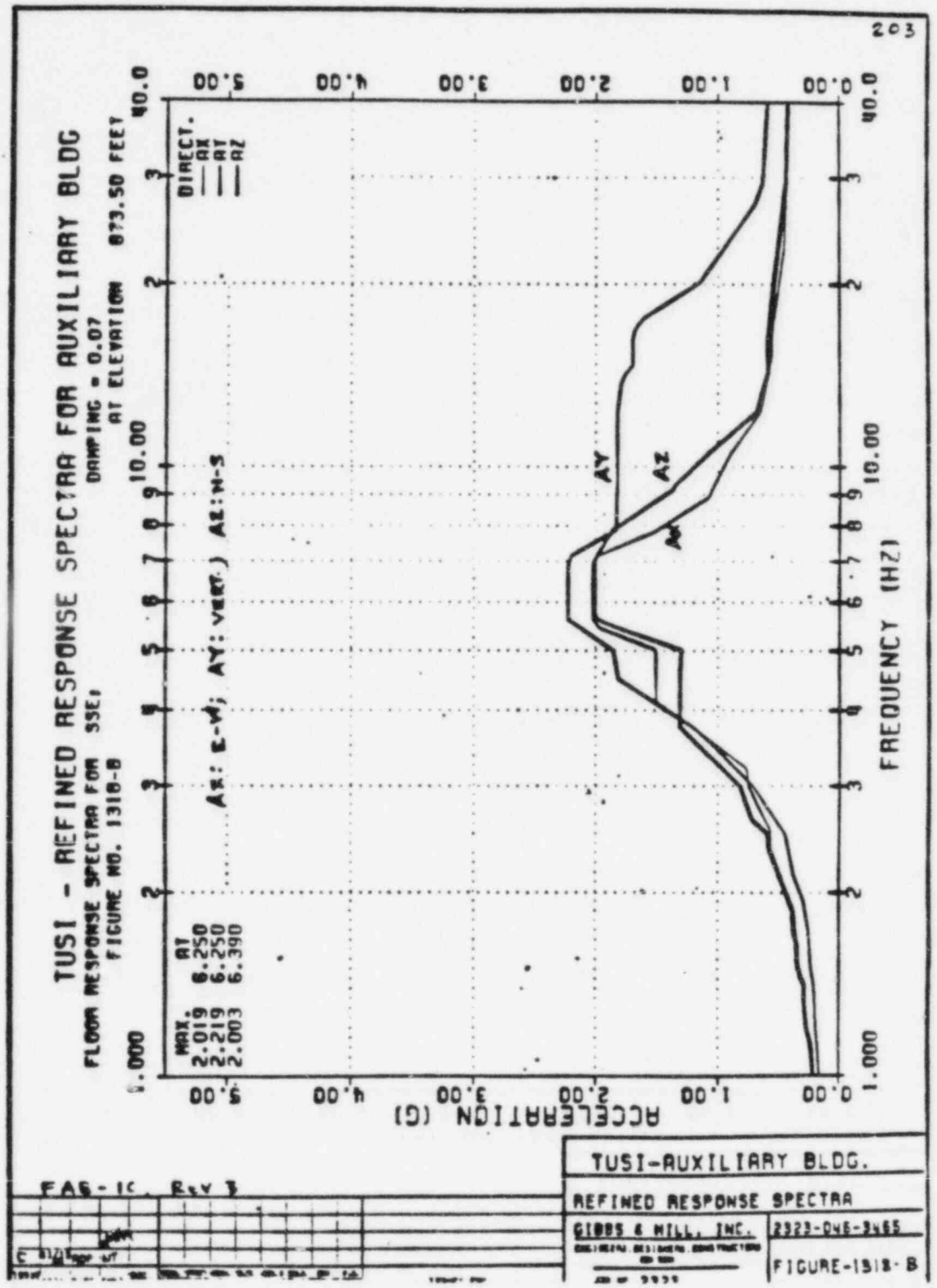
FIGURE	DATE	BUILDING*	ELEV. (FT)	DAMP. (%)	SSE
119-B	1/85	RB - Internal	905.75	7	SSE
120-B	1/85	RB - Internal	885.50	7	SSE
121-B	1/85	RB - Internal	860.00	7	SSE
122-B	1/85	RB - Internal	832.50	7	SSE
123-B	1/85	RB - Internal	808.00	7	SSE
124-B	1/85	RB - Internal	783.50	7	SSE
1124-B	1/85	Containment	1000.50	7	SSE
1125-B	1/85	Containment	950.58	7	SSE
1126-B	1/85	Containment	905.75	7	SSE
1127-B	1/85	Containment	860.00	7	SSE
1128-B	1/85	Containment	805.50	7	SSE
1129-B	1/85	Containment	783.58	7	SSE
427-B	10/85	Fuel Building	918.00	7	SSE
428-B	10/85	Fuel Building	899.50	7	SSE
429-B	10/85	Fuel Building	860.00	7	SSE
430-B	10/85	Fuel Building	841.00	7	SSE
431-B	10/85	Fuel Building	825.00	7	SSE
432-B	10/85	Fuel Building	810.50	7	SSE

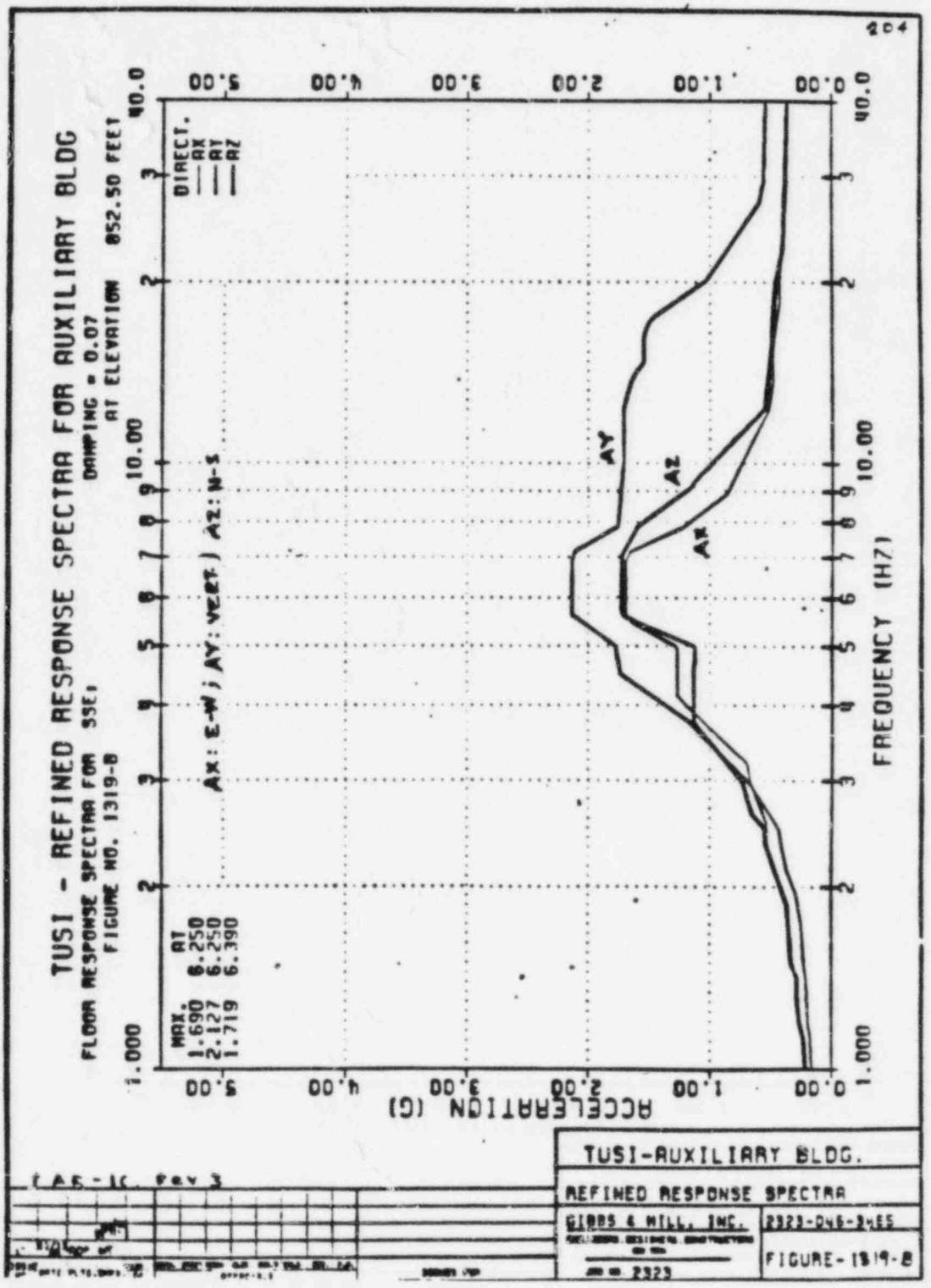
* For the Service Water Intake Building (SWI), use the following response spectra [19];

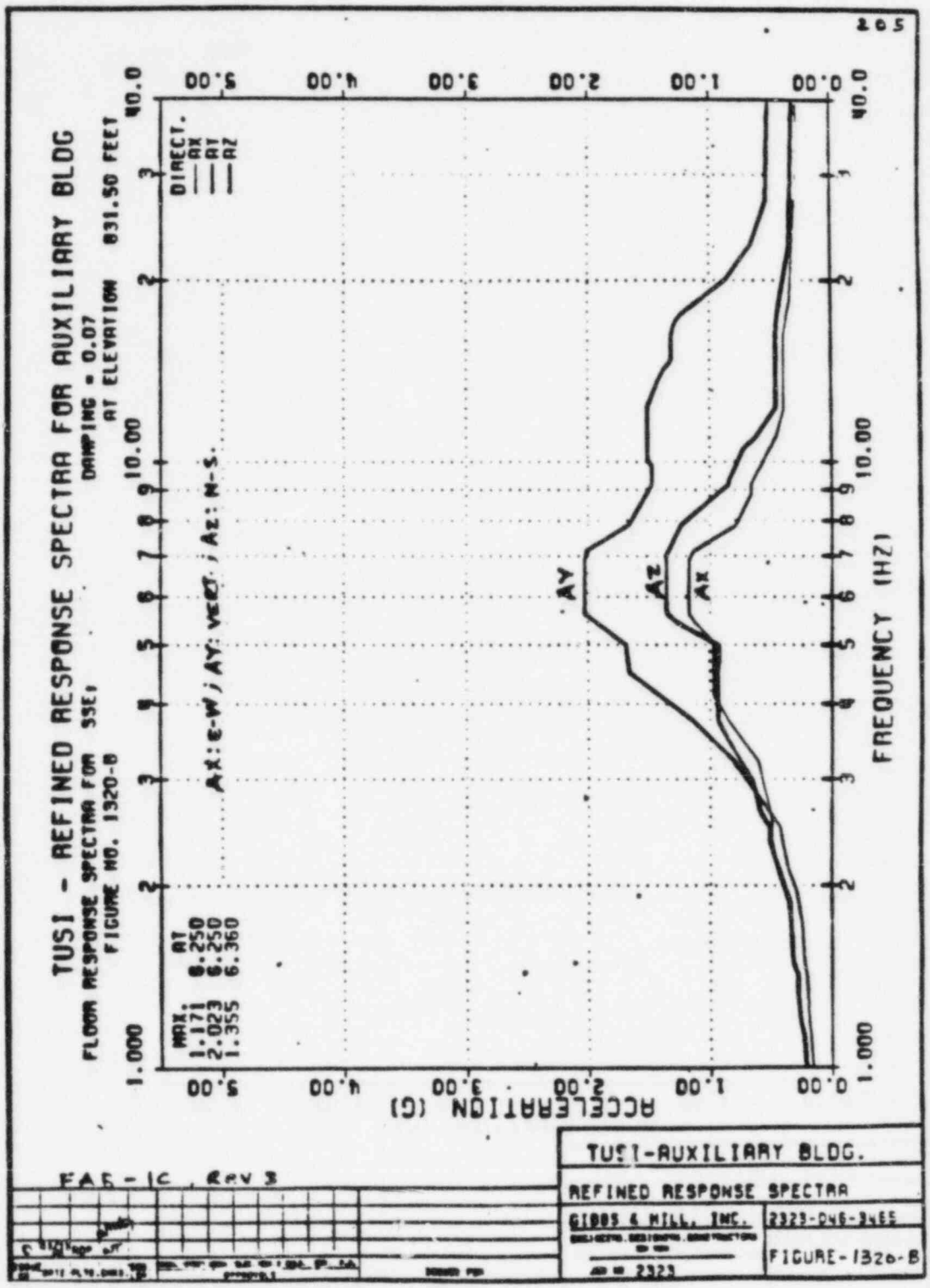
SWI at ELEV.	Use Fuel Building Spectra at Elev.
835'-0"	841'-0"
796'-0"	825'-0"
755'-0"	810'-0"

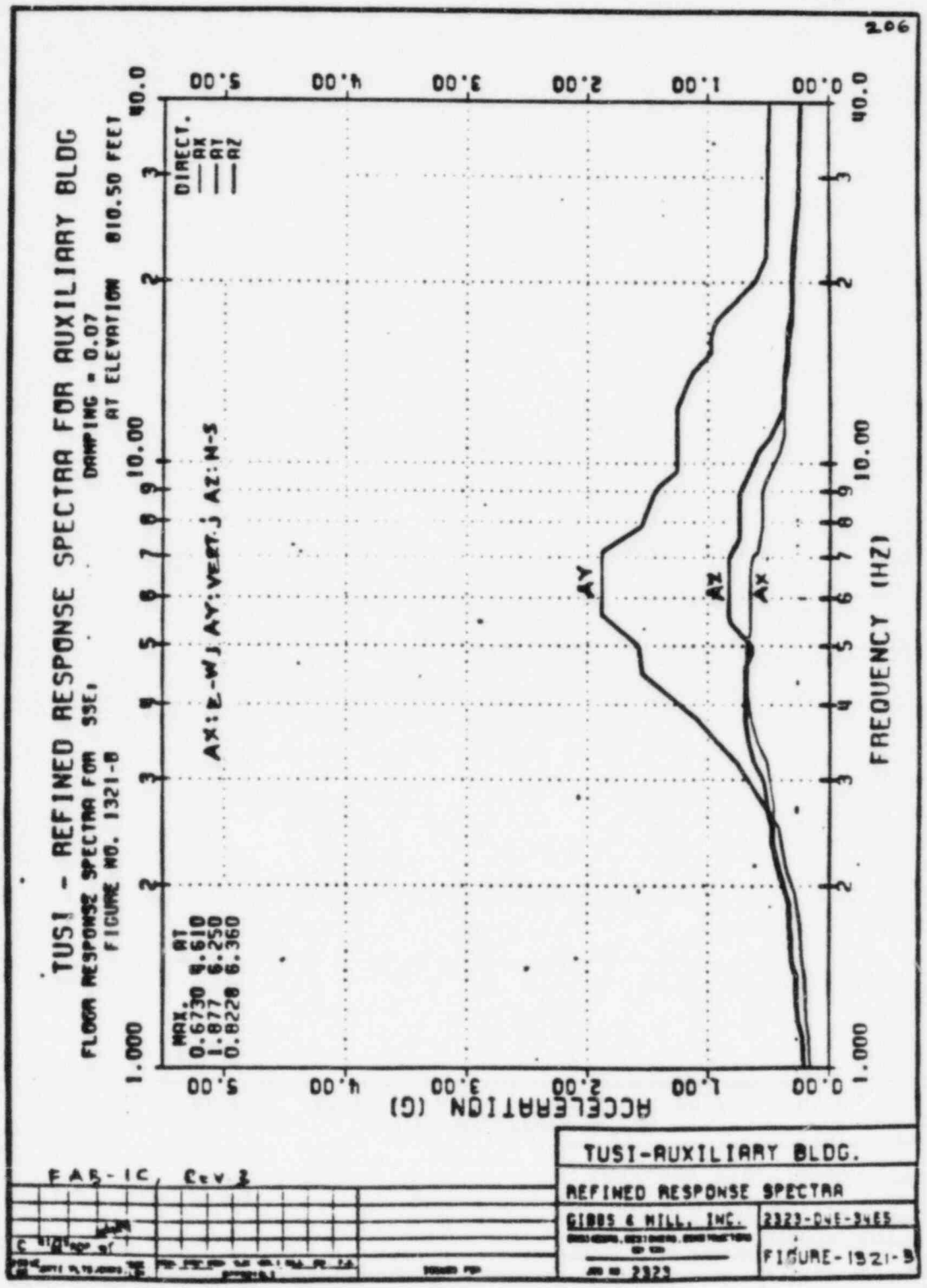

TUSI - REFINED RESPONSE SPECTRA FOR AUXILIARY BLDG
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1316-B AT ELEVATION 899.50 FEET
Ax: E-W; AY: VERT.; AZ: N-S.
DIRECT.
AX
AT
AZ
MAX. AT
2.717 6.360
2.110 6.250
2.356 6.390
Ax
Az
AY
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-AUXILIARY BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D46-SYES
FIGURE-1316-B

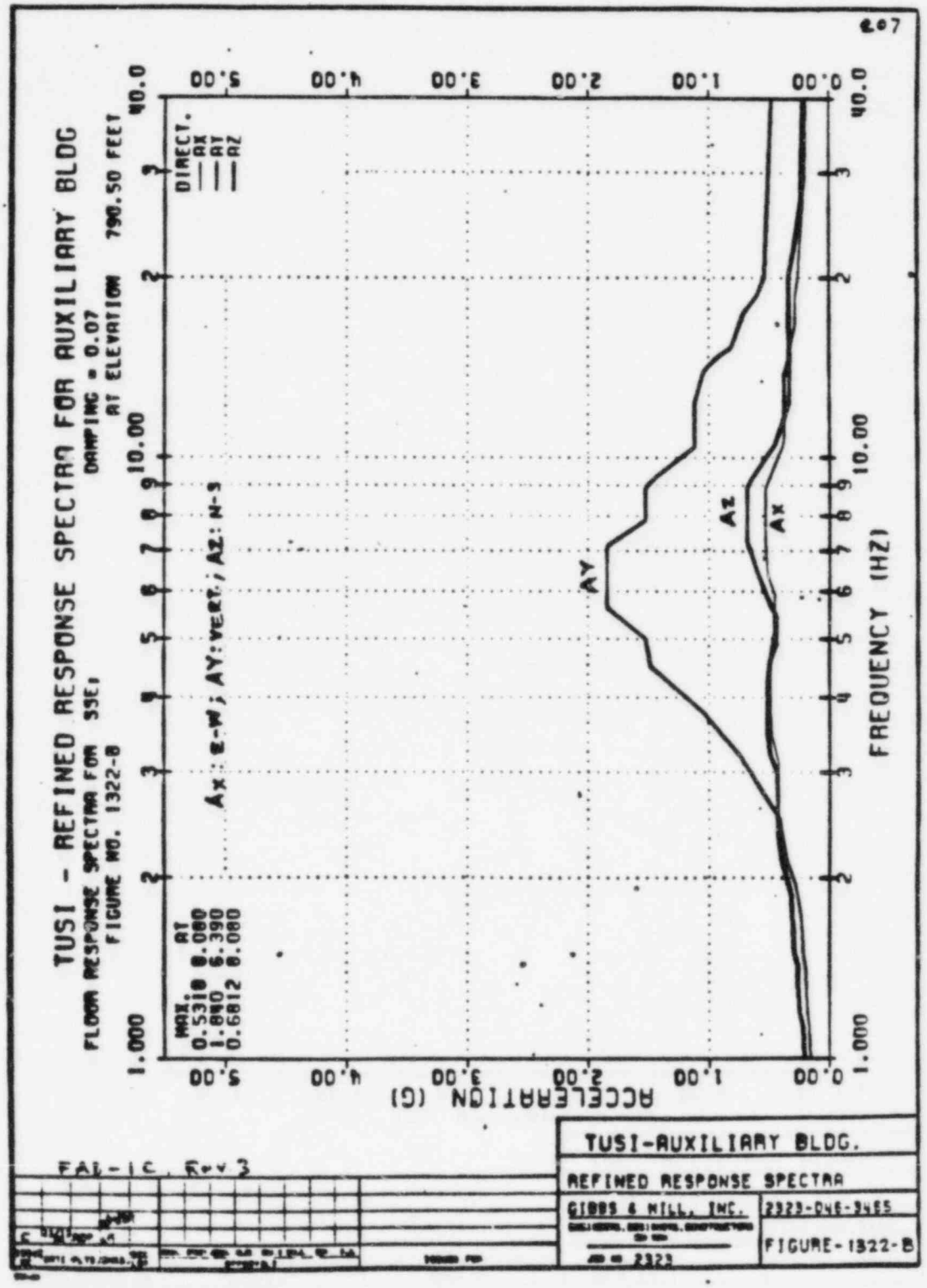

TUSI - REFINED RESPONSE SPECTRA FOR AUXILIARY BLDG
FLOOR RESPONSE SPECTRA FOR SSE: FIGURE NO. 1317-B
DAMPING = 0.07
AT ELEVATION 886.50 FEET
AX: E-W; AY: VERT.; AZ: N-S.
DIRECT.
AX
AY
AZ
MAX. AT
2.364 0.360
2.157 6.250
2.180 6.390
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-AUXILIARY BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3xES
FIGURE-1317-B
FAB-1C Rev 3

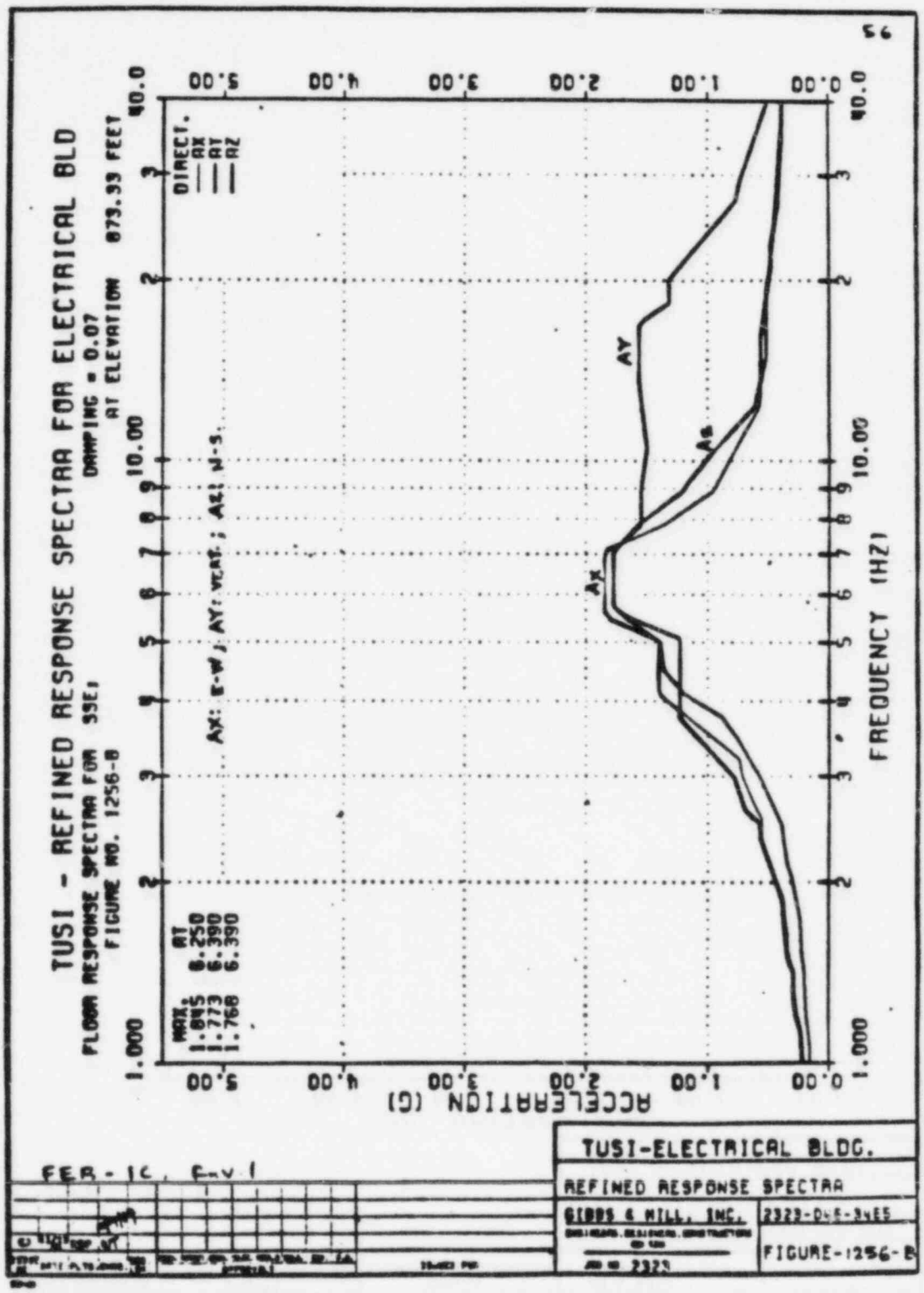

203
TUSI - REFINED RESPONSE SPECTRA FOR AUXILIARY BLDG
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1318-B
AT ELEVATION 873.50 FEET
AX: E-W; AY: VERT.; AZ: N-S
DIRECT.
AX
AT
AZ
AY
AZ
AT
MAX. AT
2.019 6.250
2.219 6.250
2.003 6.390
ACCELERATION (G)
FREQUENCY (HZ)
TUSI-AUXILIARY BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3465
FIGURE-1318-B
FAS-1C, Rev 3

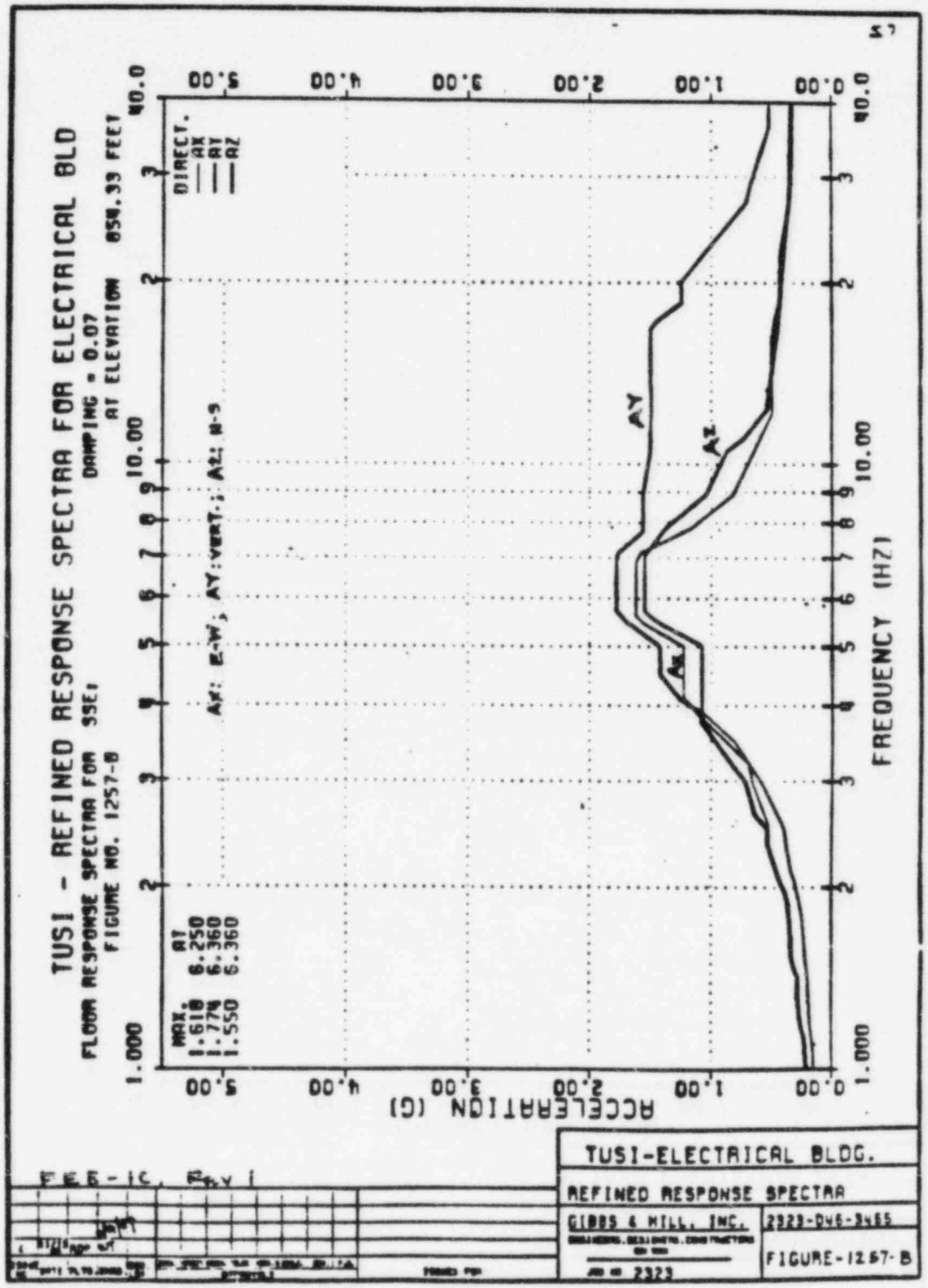

TUSI - REFINED RESPONSE SPECTRA FOR AUXILIARY BLDG
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 1319-8
DAMPING = 0.07
AT ELEVATION 852.50 FEET
Ax: E-W ; AY: VERT ; Az: N-S
DIRECT.
AX
AT
AZ
MAX. AT
1.690 6.250
2.127 6.250
1.719 6.390
AY
AZ
AX
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-AUXILIARY BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D46-3465
FIGURE-1319-8
2323

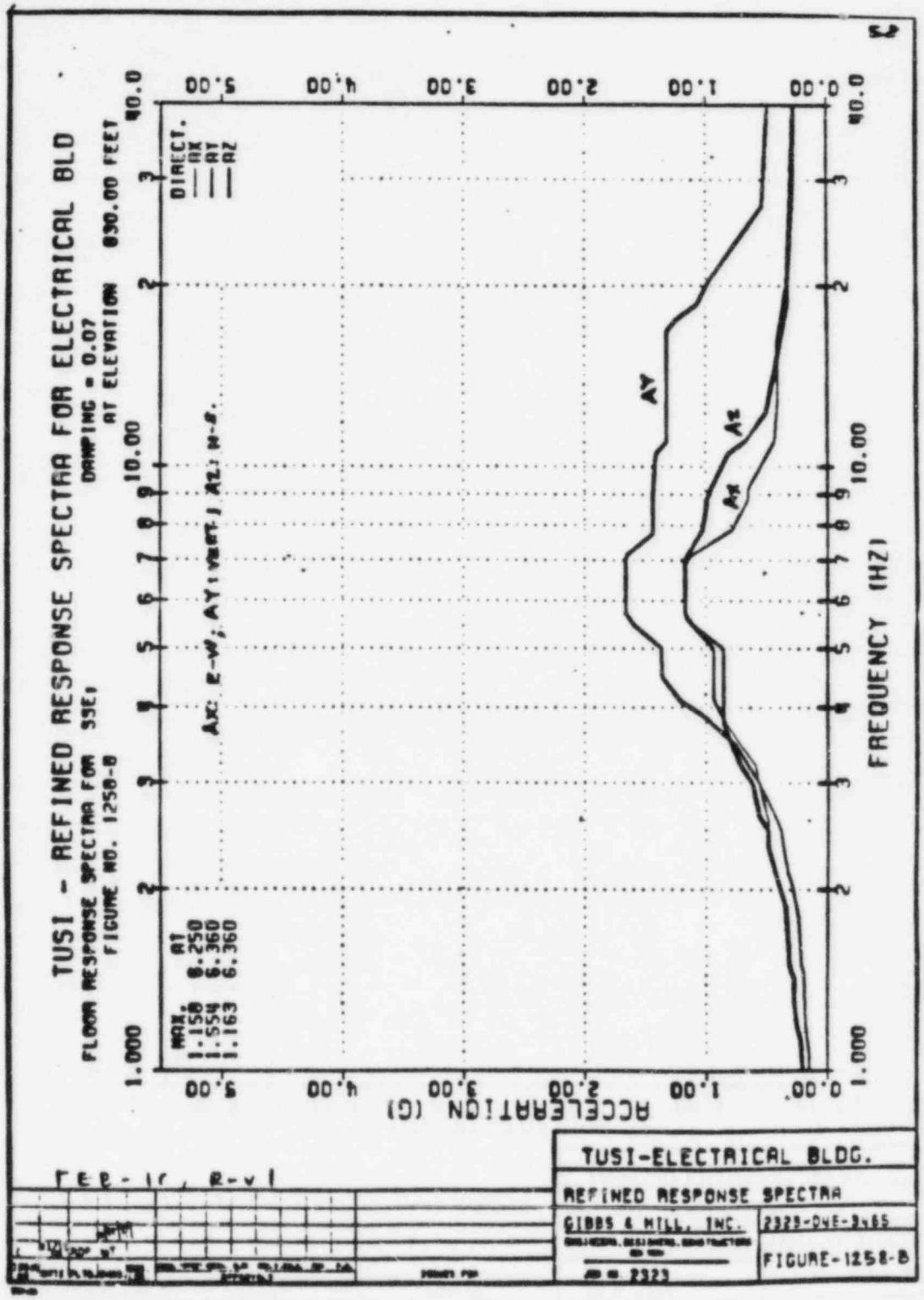

TUSI - REFINED RESPONSE SPECTRA FOR AUXILIARY BLDG
DAMPING = 0.07
AT ELEVATION 831.50 FEET
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 1320-B
Ax: E-W ; Ay: VERT. ; Az: N-S.
DIRECT.
AX
AY
AZ
MAX.
1.171
2.023
1.355
AT
0.250
0.250
0.360
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
Ay
Az
Ax
TUSI-AUXILIARY BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D46-3455
FIGURE-1320-B
FAB-1C, Rev 3
SHEET #6

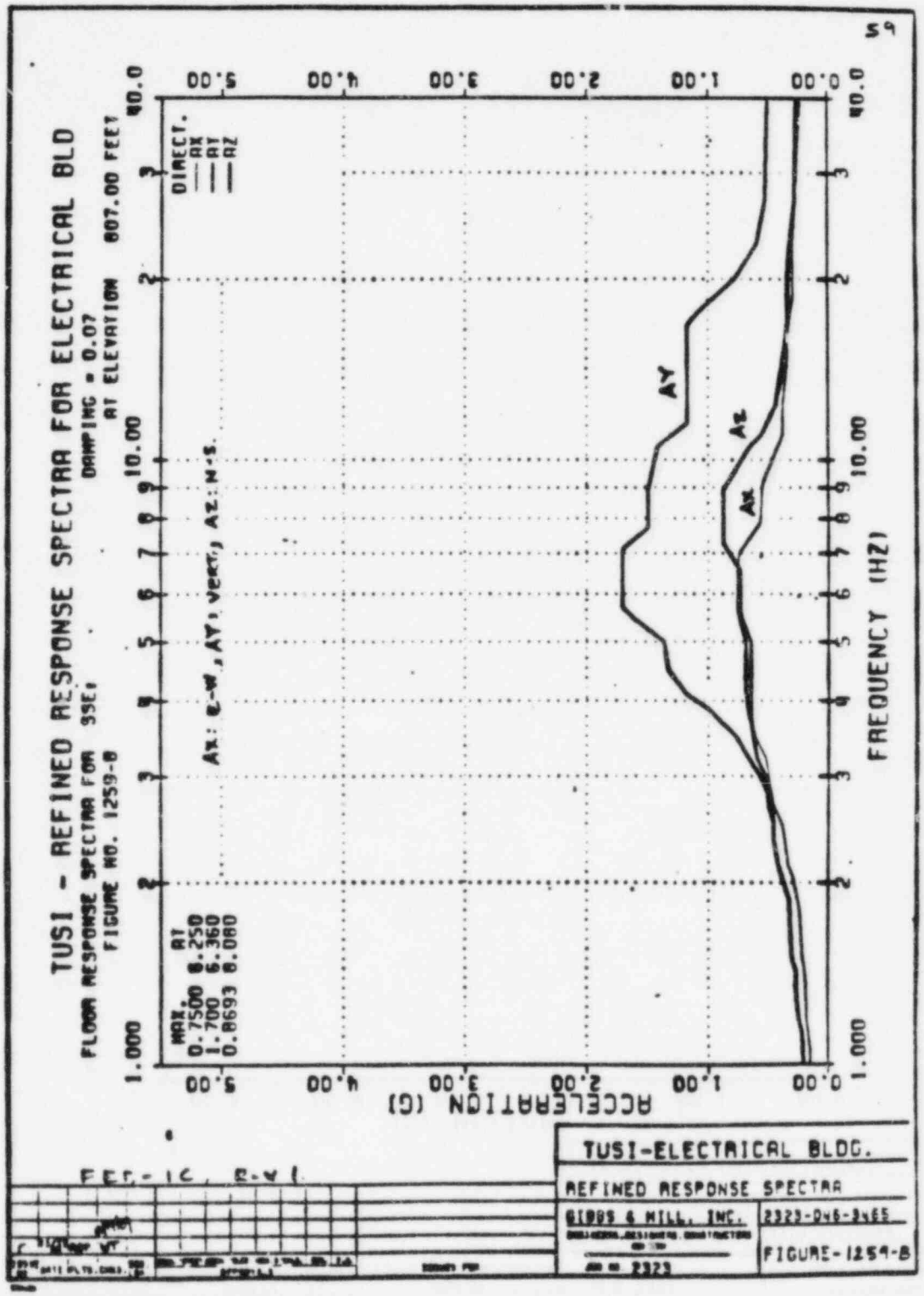

206
TUSI - REFINED RESPONSE SPECTRA FOR AUXILIARY BLDG
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1321-8
AT ELEVATION 810.50 FEET
AX:E-W; AY:VERT.; AZ:N-S
DIRECT.
AX
AY
AZ
MAX. AT
0.6730 8.610
1.877 6.250
0.8220 6.360
AY
AZ
AX
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-AUXILIARY BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-DVE-3465
FIGURE-1321-8
FAB-IC, Rev 3


TUSI - REFINED RESPONSE SPECTRA FOR AUXILIARY BLDG
FLOOR RESPONSE SPECTRA FOR SSE: DAMPING = 0.07
FIGURE NO. 1322-B AT ELEVATION 790.50 FEET
Ax: E-W; AY: VERT.; AZ: N-S
DIRECT.
AX
AY
AZ
MAX AY AZ AX
0.5310 0.080
1.000 6.390
0.6812 0.080
ACCELERATION (G)
FREQUENCY (HZ)
TUSI-AUXILIARY BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3465
FIGURE-1322-B
FAI-1C, Rev 3


TUSI - REFINED RESPONSE SPECTRA FOR ELECTRICAL BLD
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1256-B AT ELEVATION 873.33 FEET
AX: E-W ; AY: VERT. ; AZ: N-S
DIRECT.
AX
AY
AZ
MAX. AT
1.845 8.250
1.773 6.390
1.768 6.390
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-ELECTRICAL BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D-E-3455
FIGURE-1256-B
FEB-16, F-v 1
SHEET 77 (6/16/95)

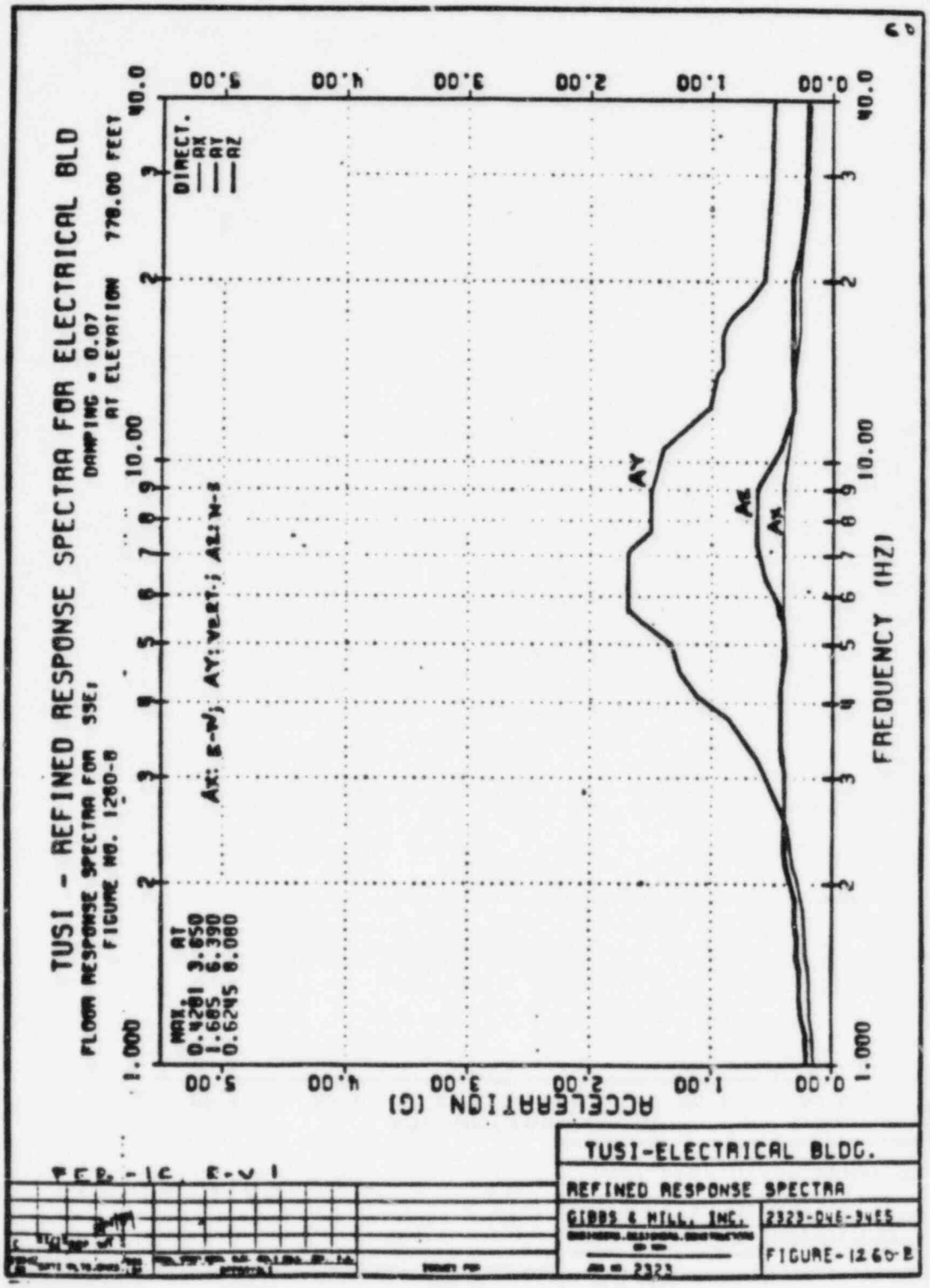

TUSI - REFINED RESPONSE SPECTRA FOR ELECTRICAL BLD
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 1257-B
DAMPING = 0.07
AT ELEVATION 859.33 FEET
DIRECT.
AX
AY
AZ
AX: E-W; AY: VERT.; AZ: N-S
MAX. AT
1.618 6.250
1.774 6.360
1.550 6.360
AY
AZ
AX
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-ELECTRICAL BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D46-3465
FIGURE-1257-B

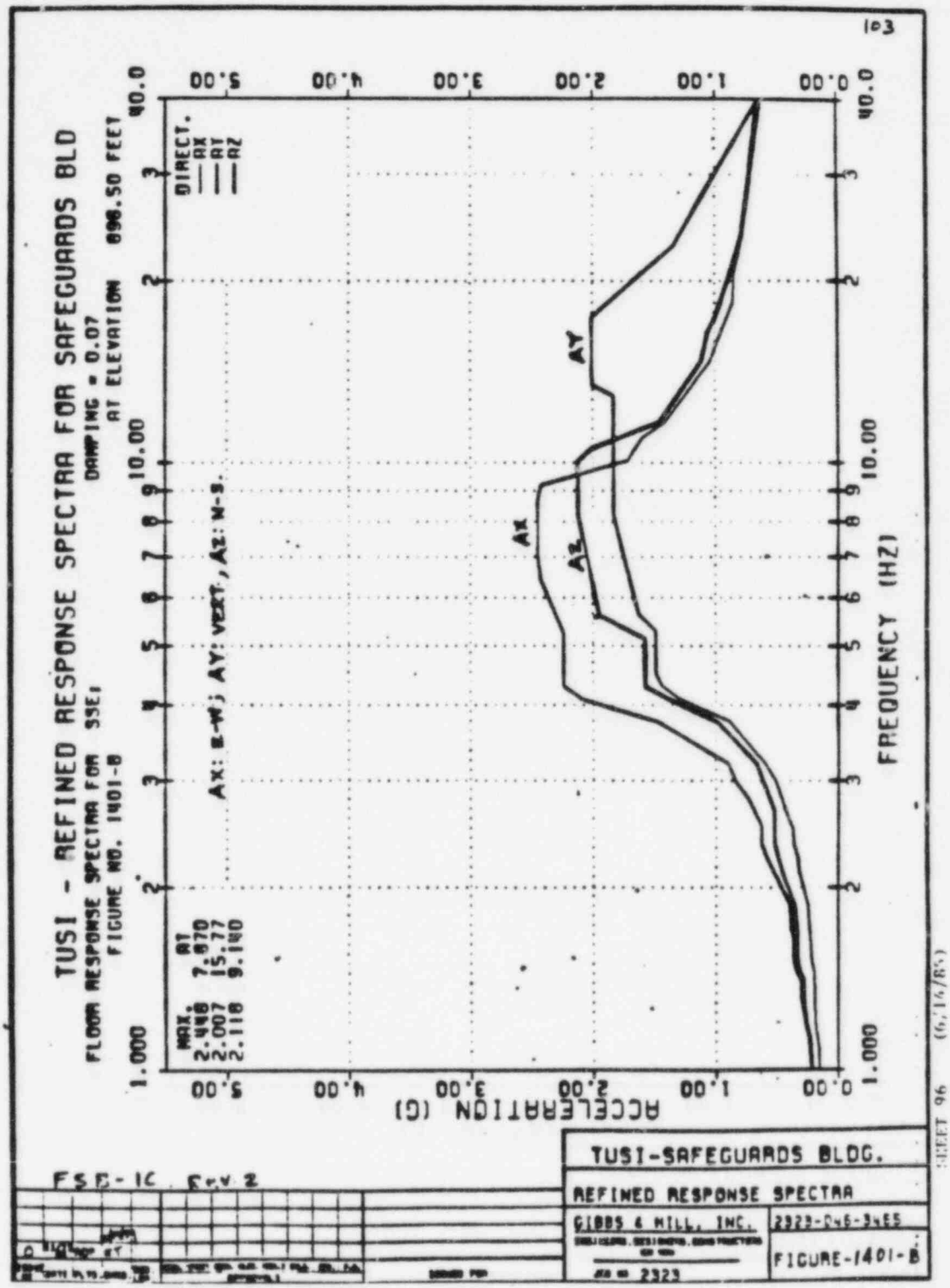

TUSI - REFINED RESPONSE SPECTRA FOR ELECTRICAL BLD
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1258-B AT ELEVATION 830.00 FEET
AX: E-W; AY: VERT; AZ: N-S.
DIRECT.
AX
AY
AZ
MAX. AT
1.158 0.250
1.554 6.360
1.163 6.360
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-ELECTRICAL BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D4E-3x85
FIGURE-1258-B
FEB-17, R-v1

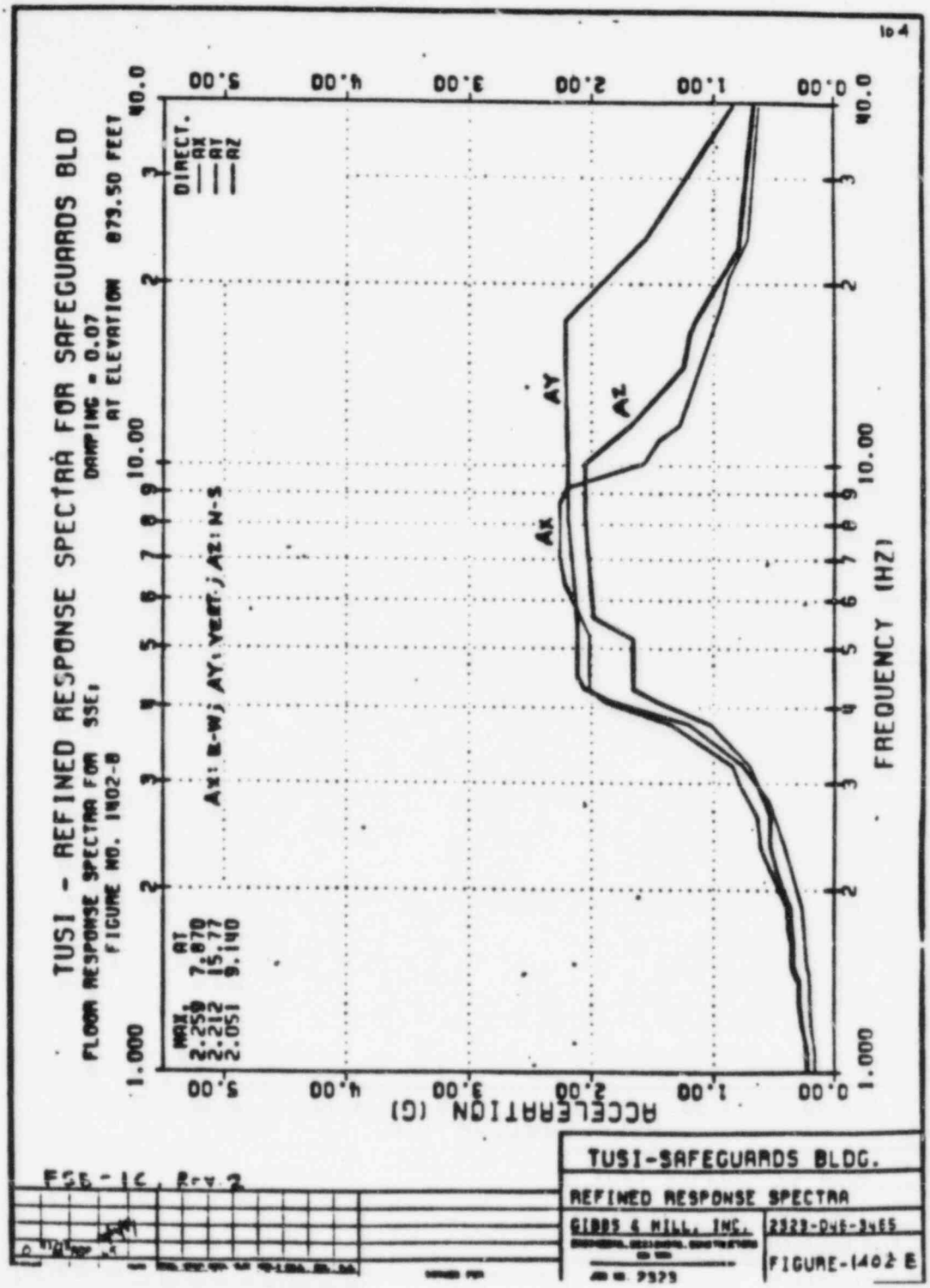

TUSI - REFINED RESPONSE SPECTRA FOR ELECTRICAL BLD
FLOOR RESPONSE SPECTRA FOR 95E; DAMPING = 0.07
FIGURE NO. 1259-B AT ELEVATION 807.00 FEET
AX: E-W, AY: VERT, AZ: N-S.
DIRECT. AX AY AZ
MAX. AT
0.7500 8.250
1.700 6.360
0.8693 8.080
AY
AZ
AX
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-ELECTRICAL BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D46-3465
FIGURE-1259-B

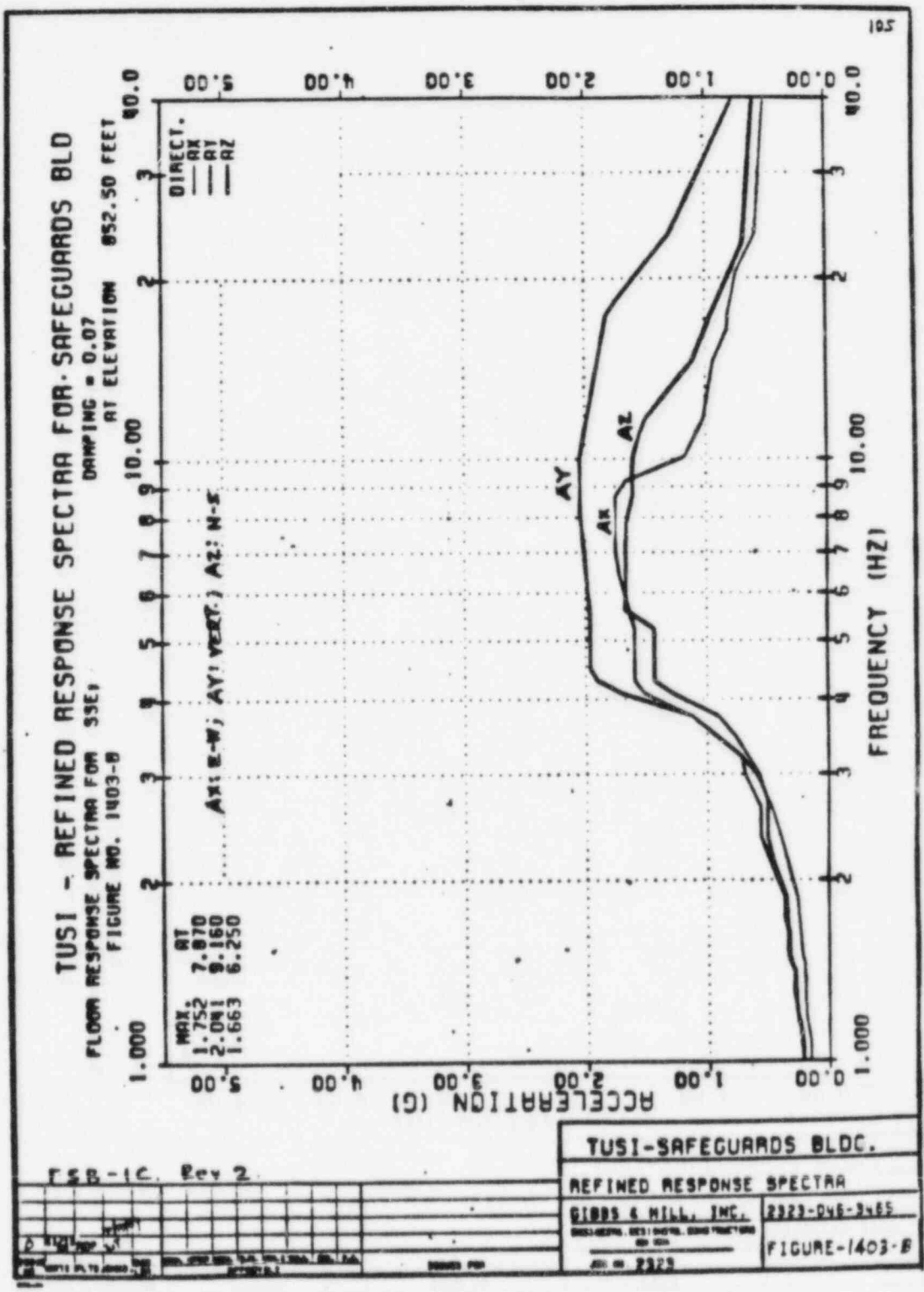
IMPELL CORPORATION

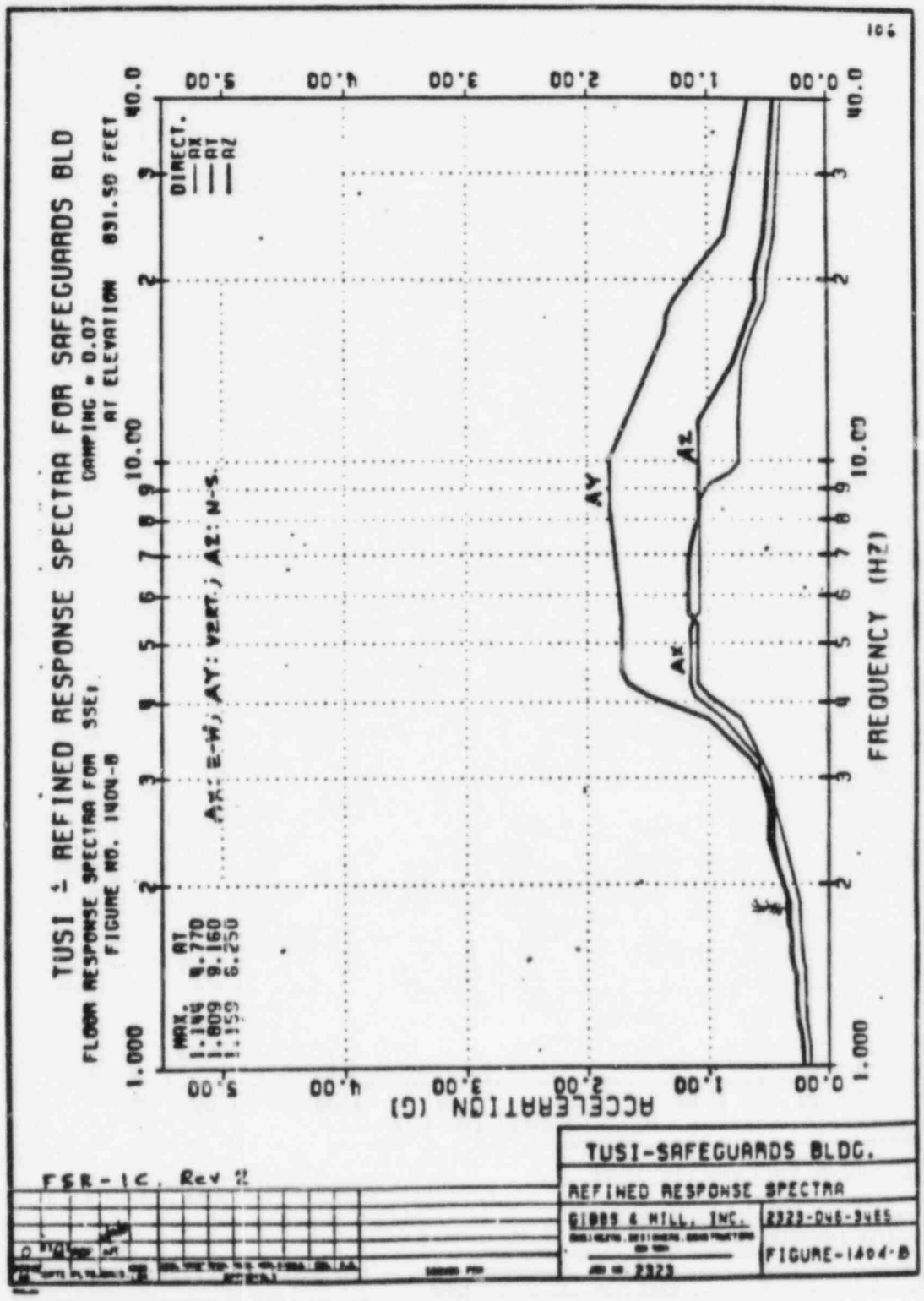
TITLE: RIGOROUS ANALYSIS OF TRAIN "C" ELECTRICAL CONDUITS		
NUMBER: 0210-052-006	REVISION: 1	PAGE D15 OF D80

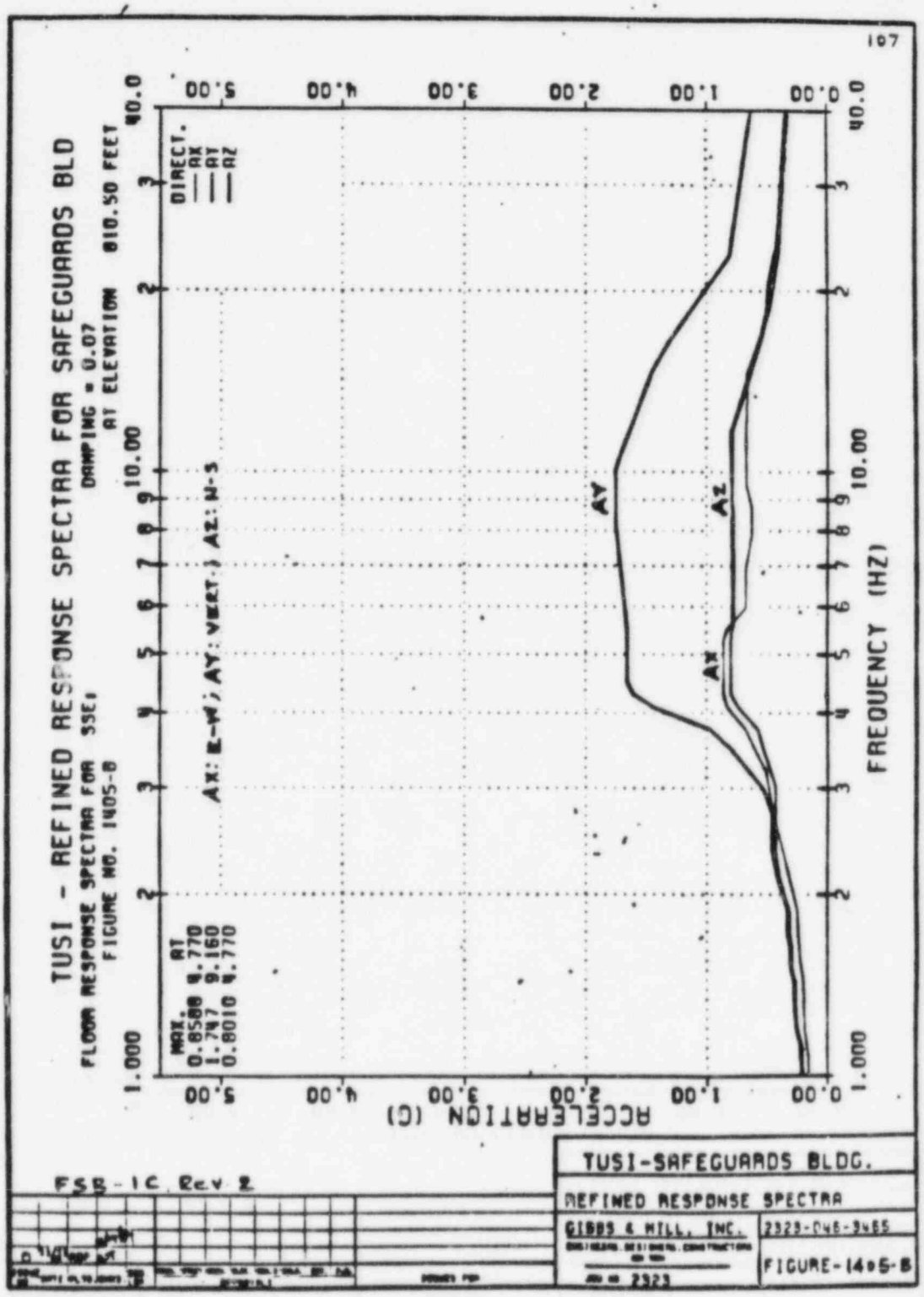


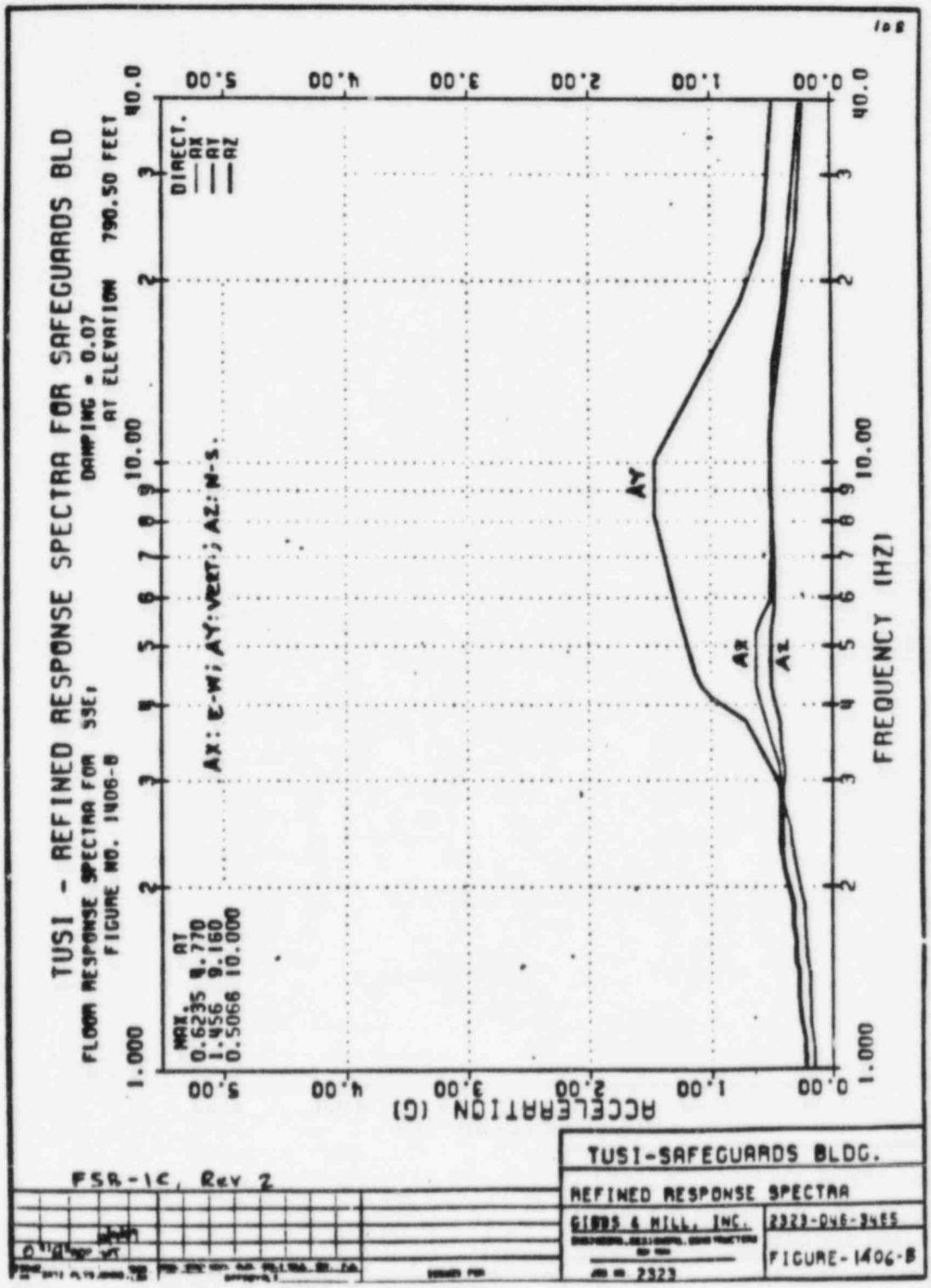

TUSI - REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1401-B AT ELEVATION 898.50 FEET
Ax: E-W; AY: VERT., Az: N-S.
DIRECT.
AX
AY
AZ
MAX. AT
2.448 7.870
2.007 15.77
2.118 9.180
Ax
AY
Az
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D46-SHEET
FIGURE-1401-B
FSD-1C Rev 2

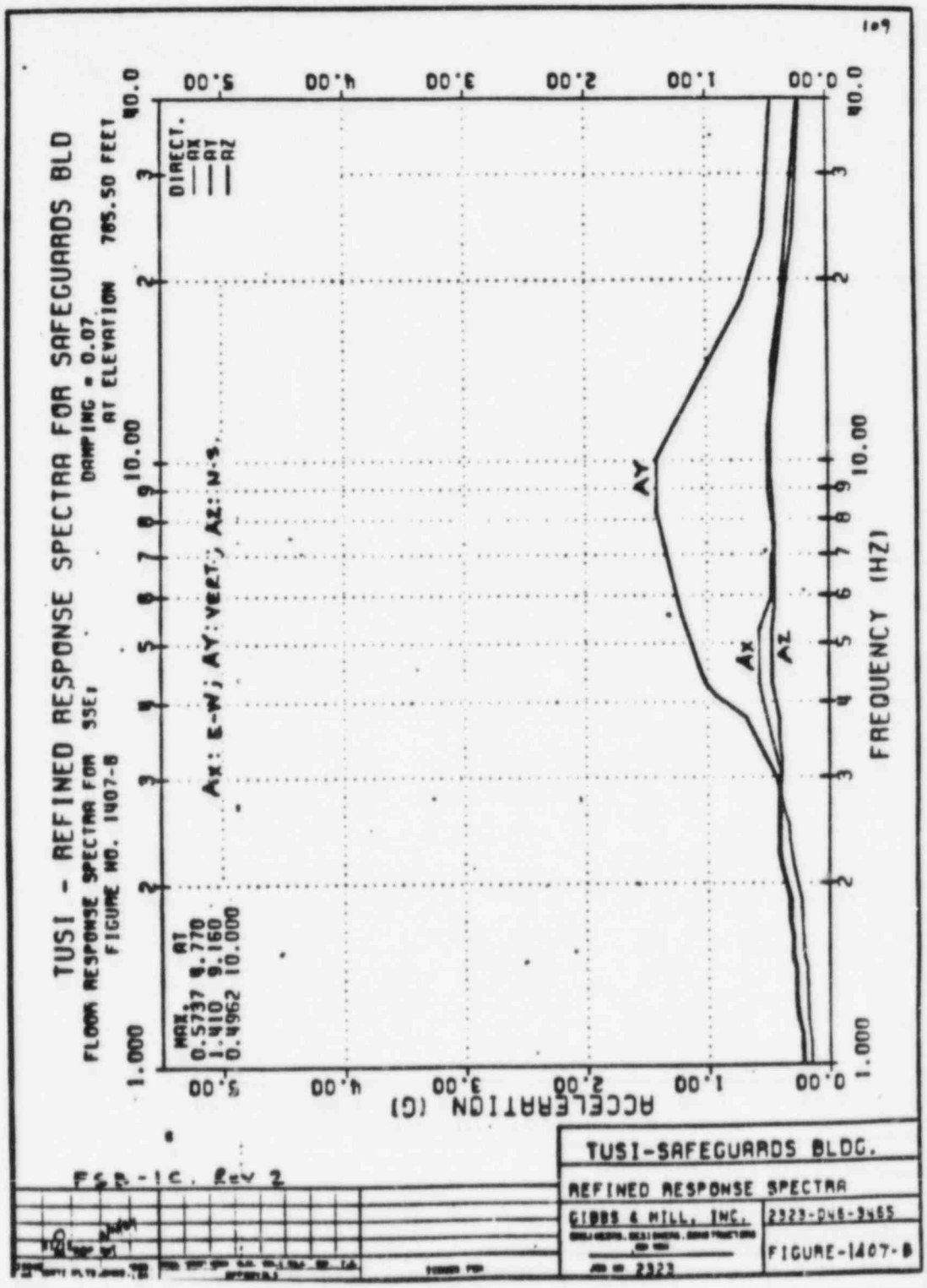

TUSI - REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 1402-8
DAMPING = 0.07
AT ELEVATION 873.50 FEET
DIRECT.
AX
AT
AZ
AX: E-W; AY: VERT.; AZ: N-S
MAX.
2.259
2.212
2.051
AT
7.870
15.77
9.140
AX
AY
AZ
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D48-3465
FIGURE-1402-8

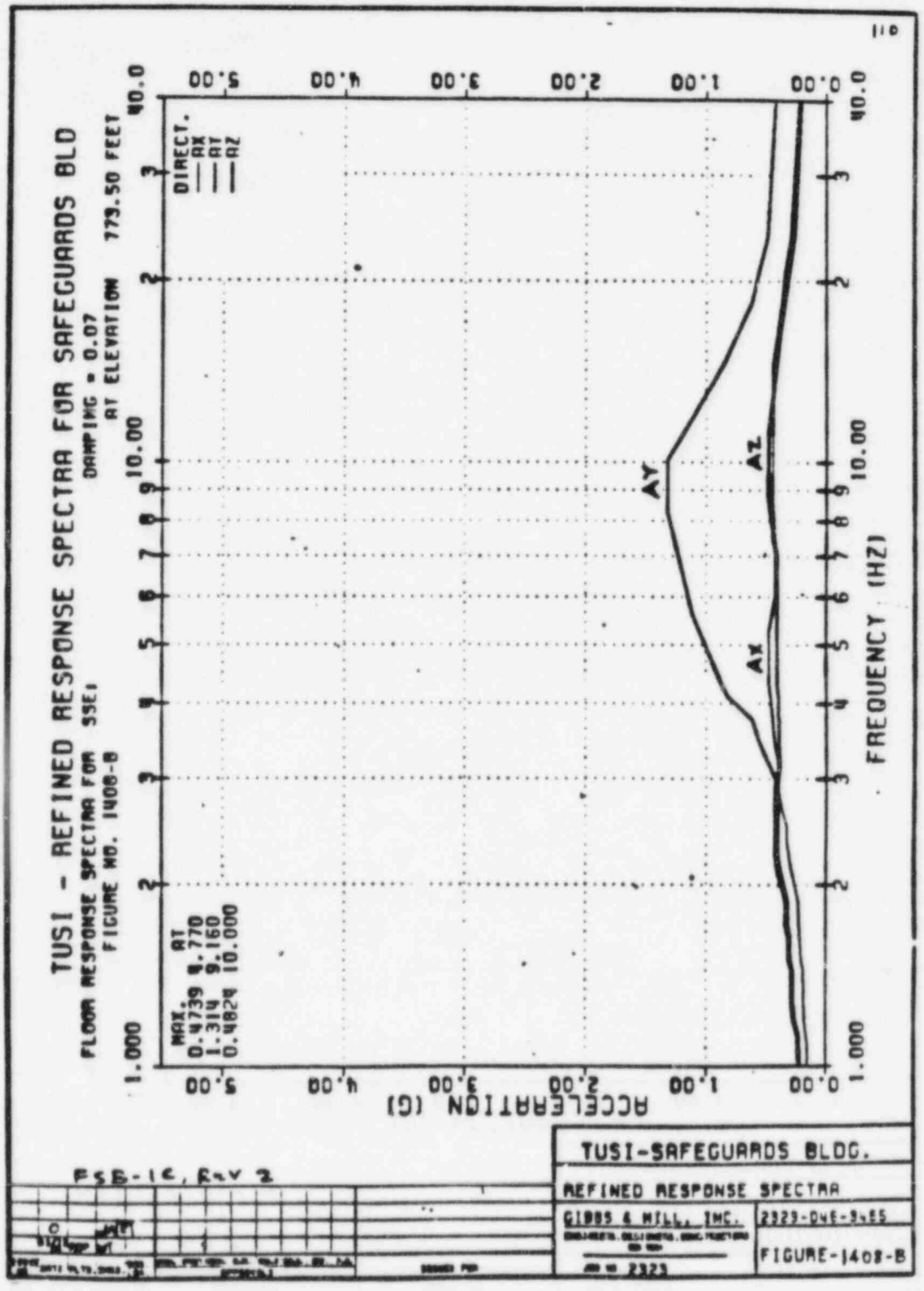

TUSI - REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR 33E; DAMPING = 0.07
FIGURE NO. 1403-B AT ELEVATION 852.50 FEET
Axis: E-W; AY: VERT.; AZ: N-S
DIRECT.
AX
AY
AZ
MAX.
1.752
2.041
1.663
AT
7.870
9.160
6.250
ACCELERATION (G)
FREQUENCY (HZ)
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-048-3485
FIGURE-1403-B
FSB-1C, Rev 2

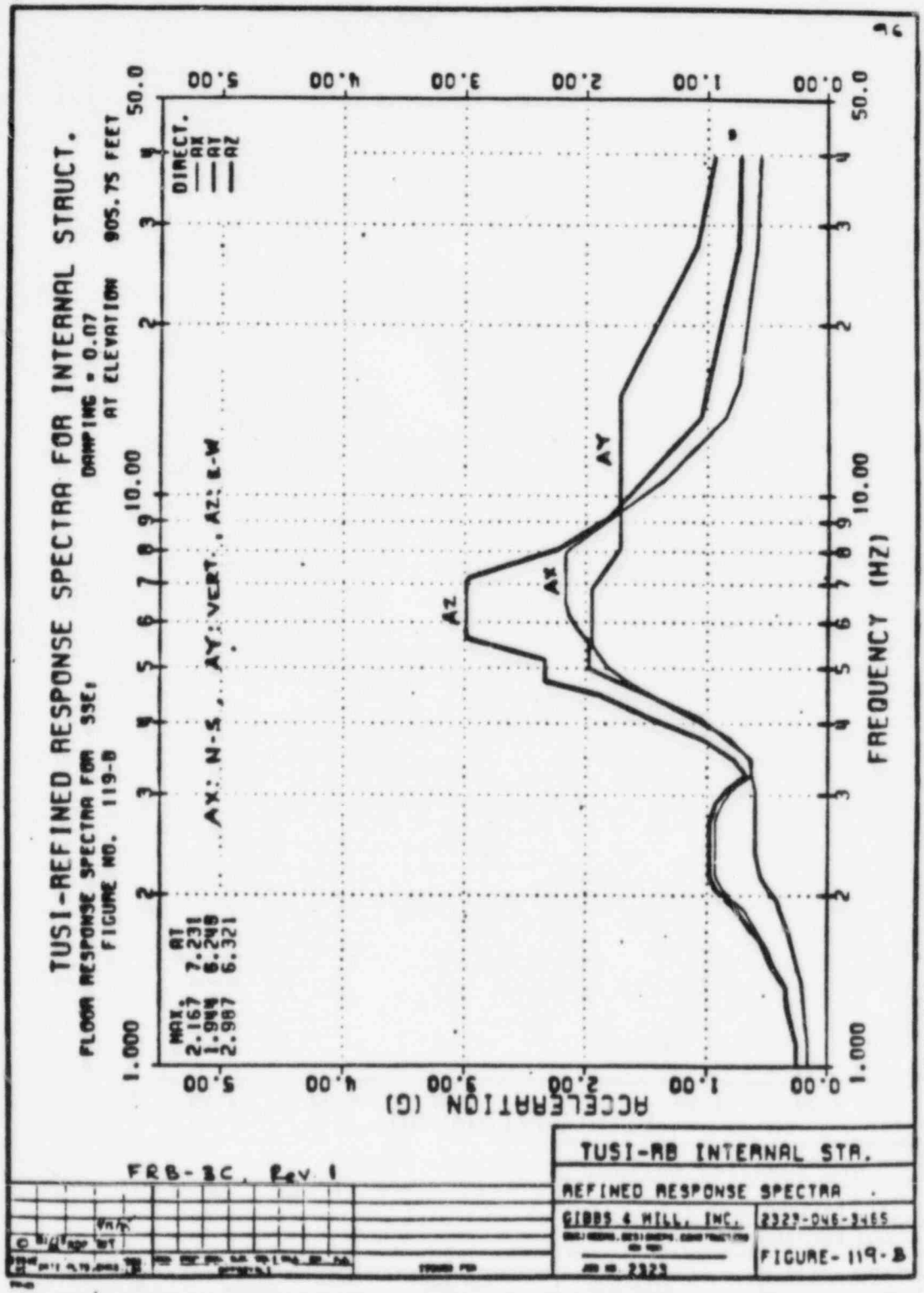

TUSI ± REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR SSE; FIGURE NO. 1404-B
DAMPING = 0.07
AT ELEVATION 831.50 FEET
DIRECT.
AX
AT
AZ
AX: E-W; AY: VERT.; AZ: N-S.
MAX. AT
1.196 8.770
1.809 8.160
1.159 6.250
AX
AY
AZ
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D48-3485
FIGURE-1404-B
FSR-1C, Rev 2
SHEET 99 (6/16/85)

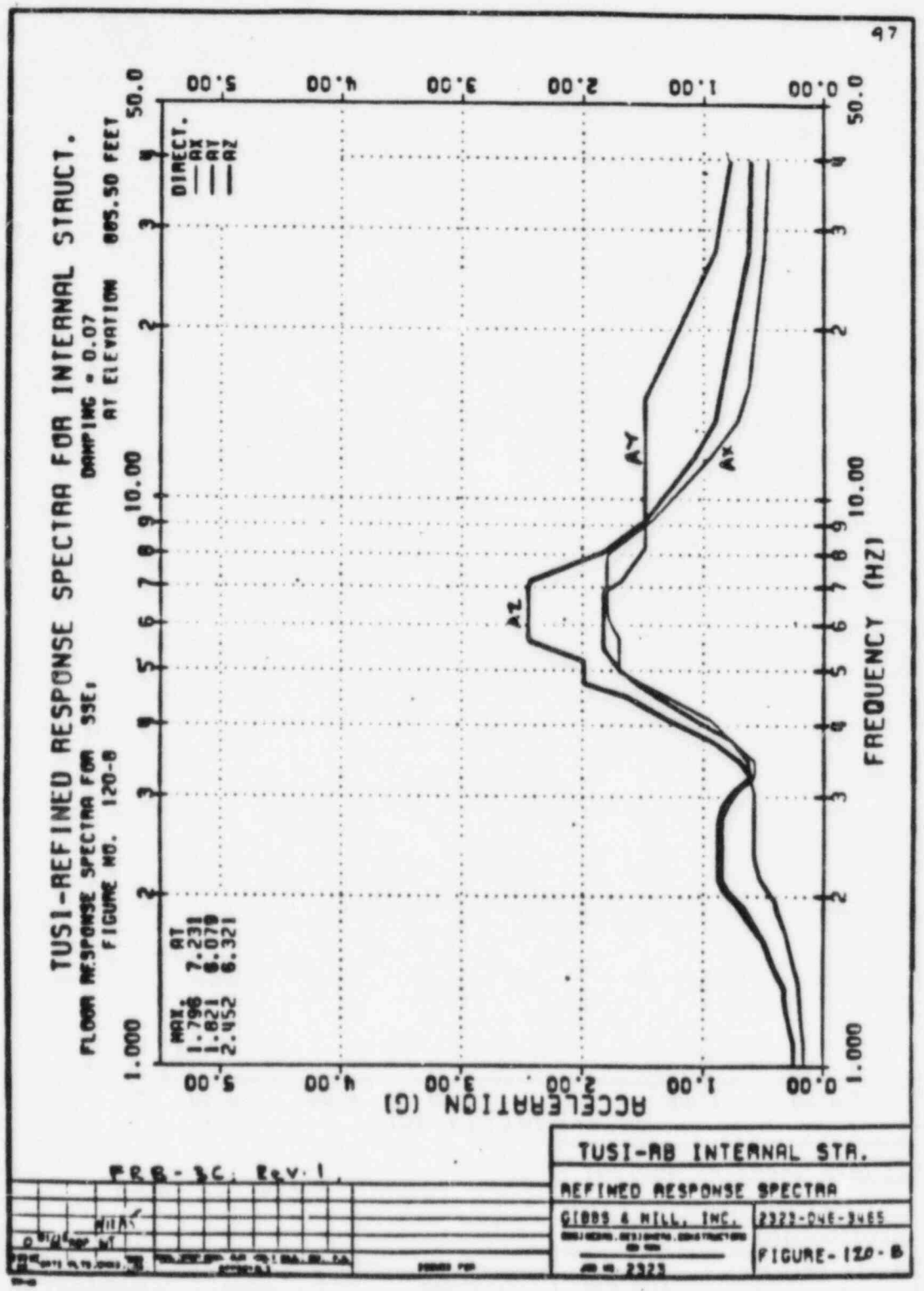

TUSI - REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR SSE: DAMPING = 0.07
FIGURE NO. 1405-B AT ELEVATION 810.50 FEET
AX: E-W; AY: VERT.; AZ: N-S
DIRECT.
AX
AY
AZ
MAX. AT
0.8588 9.770
1.747 9.160
0.8010 9.770
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-048-3485
FIGURE-1405-B
FSB-1C Rev 2
SHEET 100 (6/14/85)

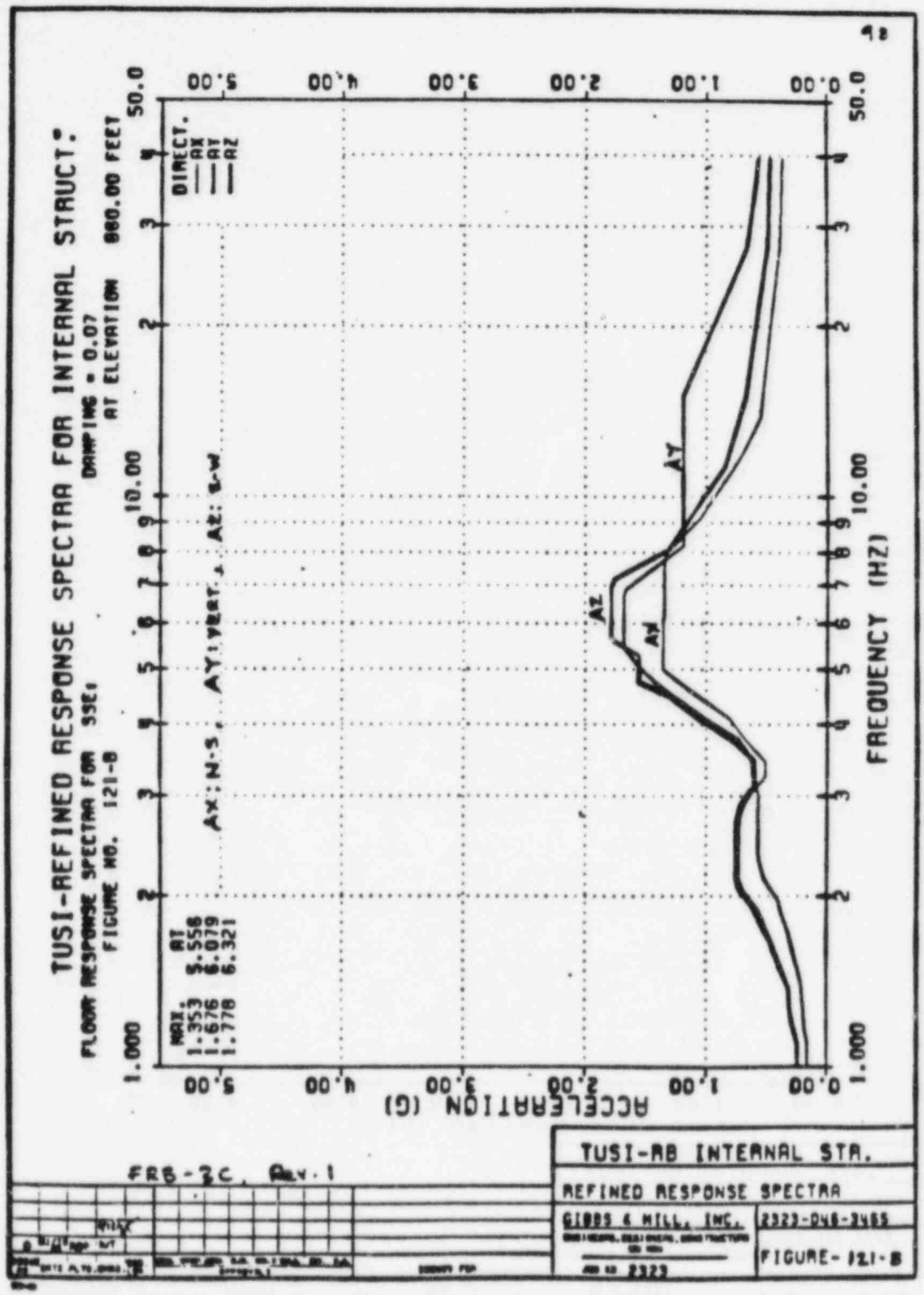

TUSI - REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 1406-8
DAMPING = 0.07
AT ELEVATION 790.50 FEET
AX: E-W; AY: VERT.; AZ: N-S.
DIRECT.
AX
AT
AZ
MAX.
0.6235 9.770
1.456 9.160
0.5066 10.000
AY
AX
AZ
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3465
FIGURE-1406-8
FSR-1C, Rev 2

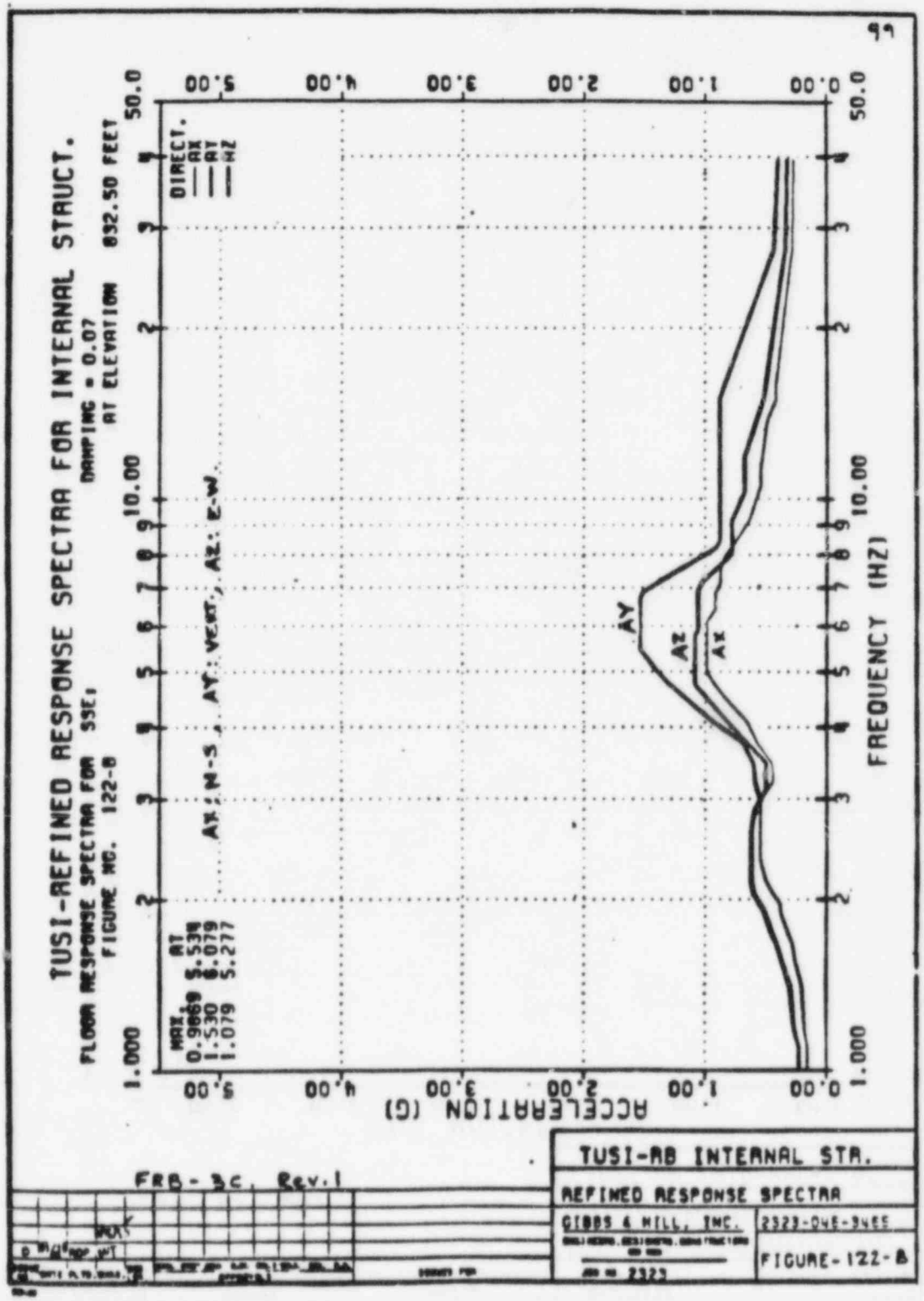

TUSI - REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1407-8
AT ELEVATION 765.50 FEET
Ax: E-W; AY: VERT.; Az: N-S.
DIRECT.
AX
AT
AZ
MAX AT
0.5737 9.770
1.410 9.160
0.4962 10.000
AY
Ax
AZ
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D46-3465
FIGURE-1407-8

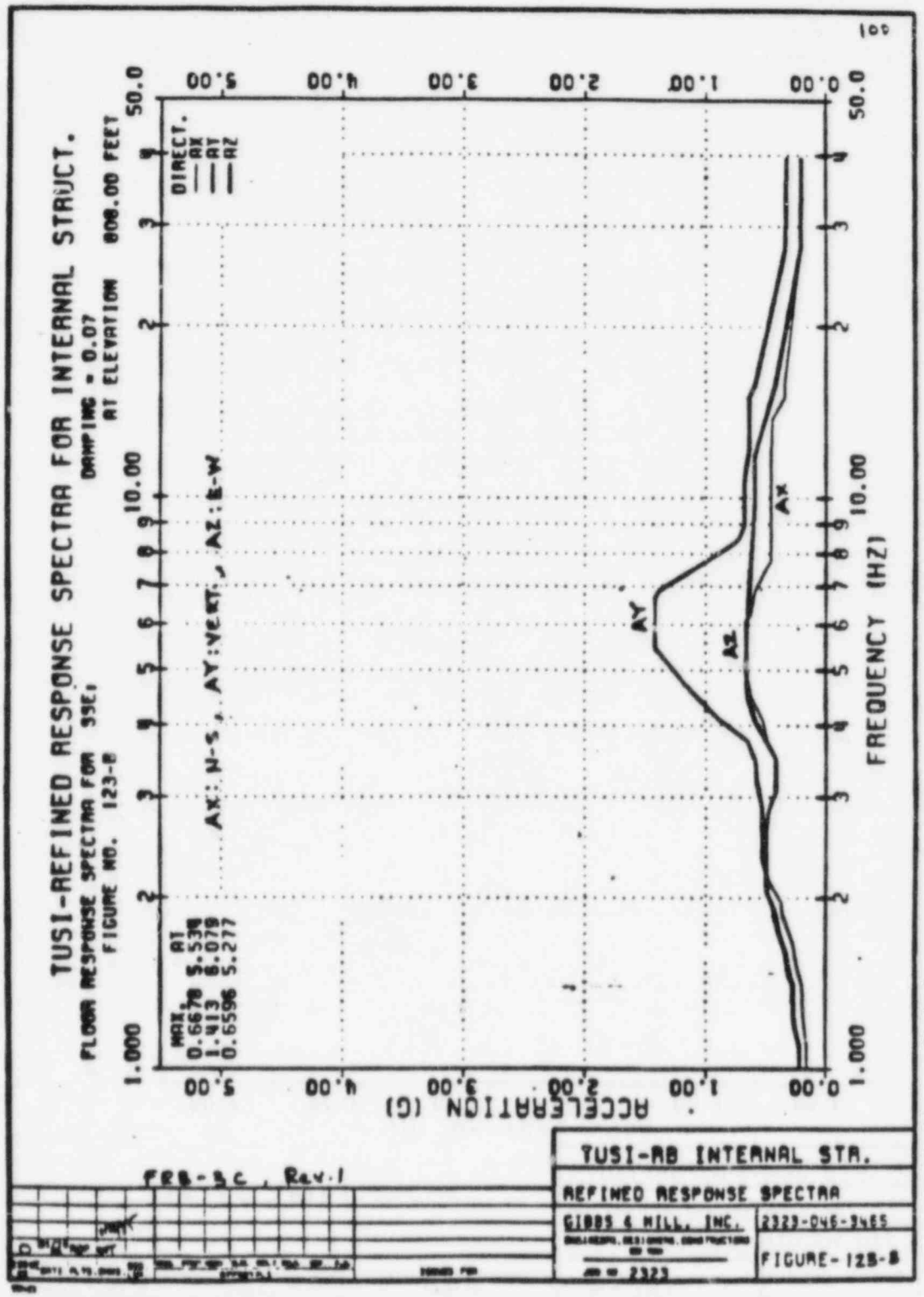

TUSI - REFINED RESPONSE SPECTRA FOR SAFEGUARDS BLD
FLOOR RESPONSE SPECTRA FOR SSE
FIGURE NO. 1408-B
DAMPING = 0.07
AT ELEVATION 773.50 FEET
DIRECT.
AX
AY
AZ
MAX. AT
0.4739 9.770
1.314 9.160
0.4824 10.000
AY
AZ
AX
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
40.0
TUSI-SAFEGUARDS BLDG.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-D4E-3455
FIGURE-1408-B
FSB-1C, Rev 2

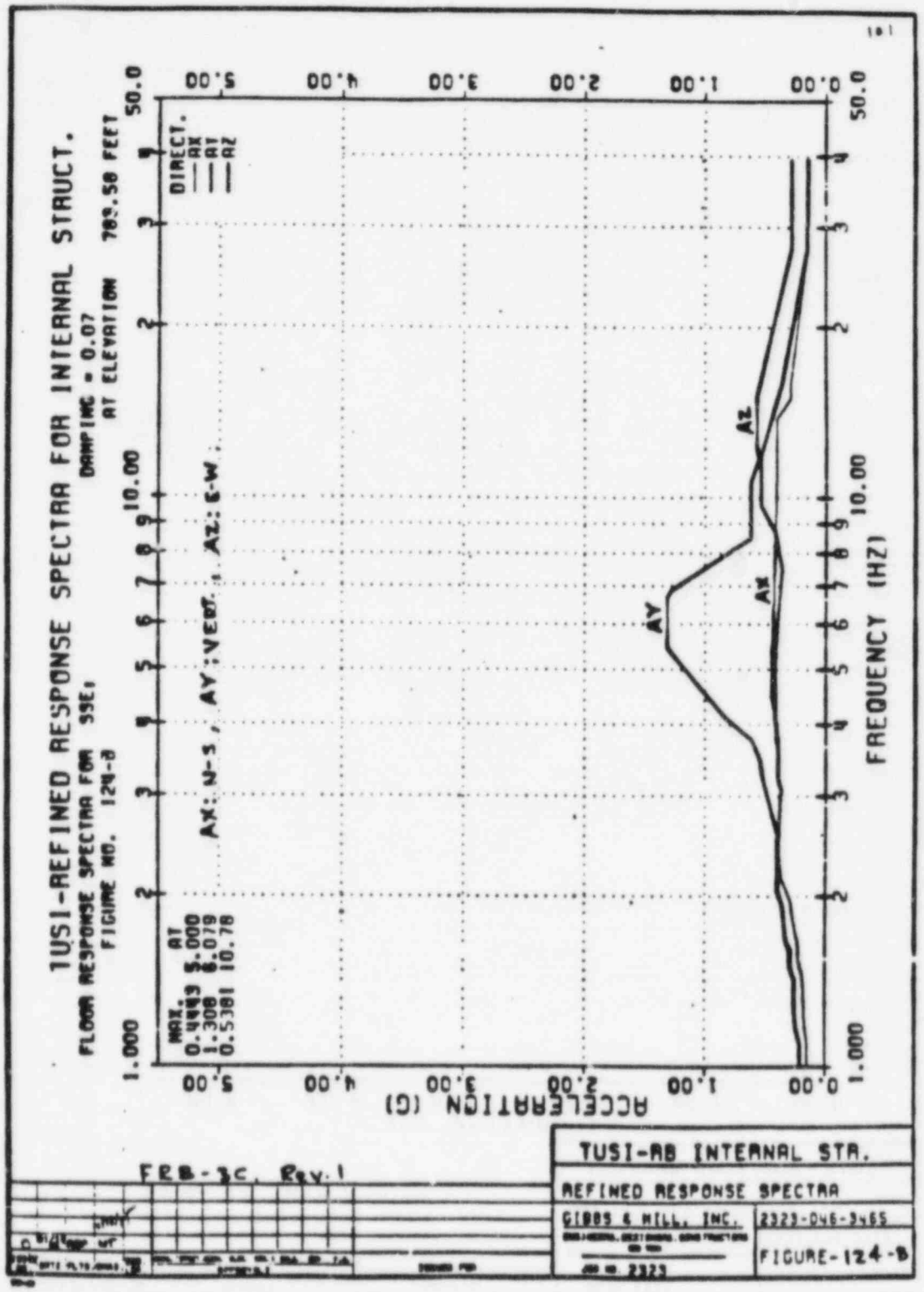

TUSI-REFINED RESPONSE SPECTRA FOR INTERNAL STRUCT.
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 119-B AT ELEVATION 905.75 FEET
AX: N-S, AY: VERT., AZ: E-W
DIRECT.
AX
AY
AZ
MAX. AT
2.167 7.231
1.944 6.248
2.987 6.321
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
FRB-3C, Rev 1
TUSI-RB INTERNAL STR.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2329-046-3465
FIGURE-119-B
SHEET 68 (6/14/85)


TUSI-REFINED RESPONSE SPECTRA FOR INTERNAL STRUCT.
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 120-B
DAMPING = 0.07
AT ELEVATION 885.50 FEET
DIRECT.
AX
AY
AZ
MAX.
1.796
1.821
2.452
AT
7.231
8.078
8.321
ACCELERATION (G)
FREQUENCY (HZ)
TUSI-AB INTERNAL STR.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-DAE-3465
FIGURE-120-B


TUSI-REFINED RESPONSE SPECTRA FOR INTERNAL STRUCT.*
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 121-8
AT ELEVATION 860.00 FEET
DIRECT.
AX
AT
AZ
AX: N-S, AY: VERT., AZ: E-W
MAX. AT
1.353 5.558
1.676 6.079
1.778 6.321
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUSI-AB INTERNAL STR.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-048-2485
FIGURE- 121-8
FRB-3C, Rev. 1

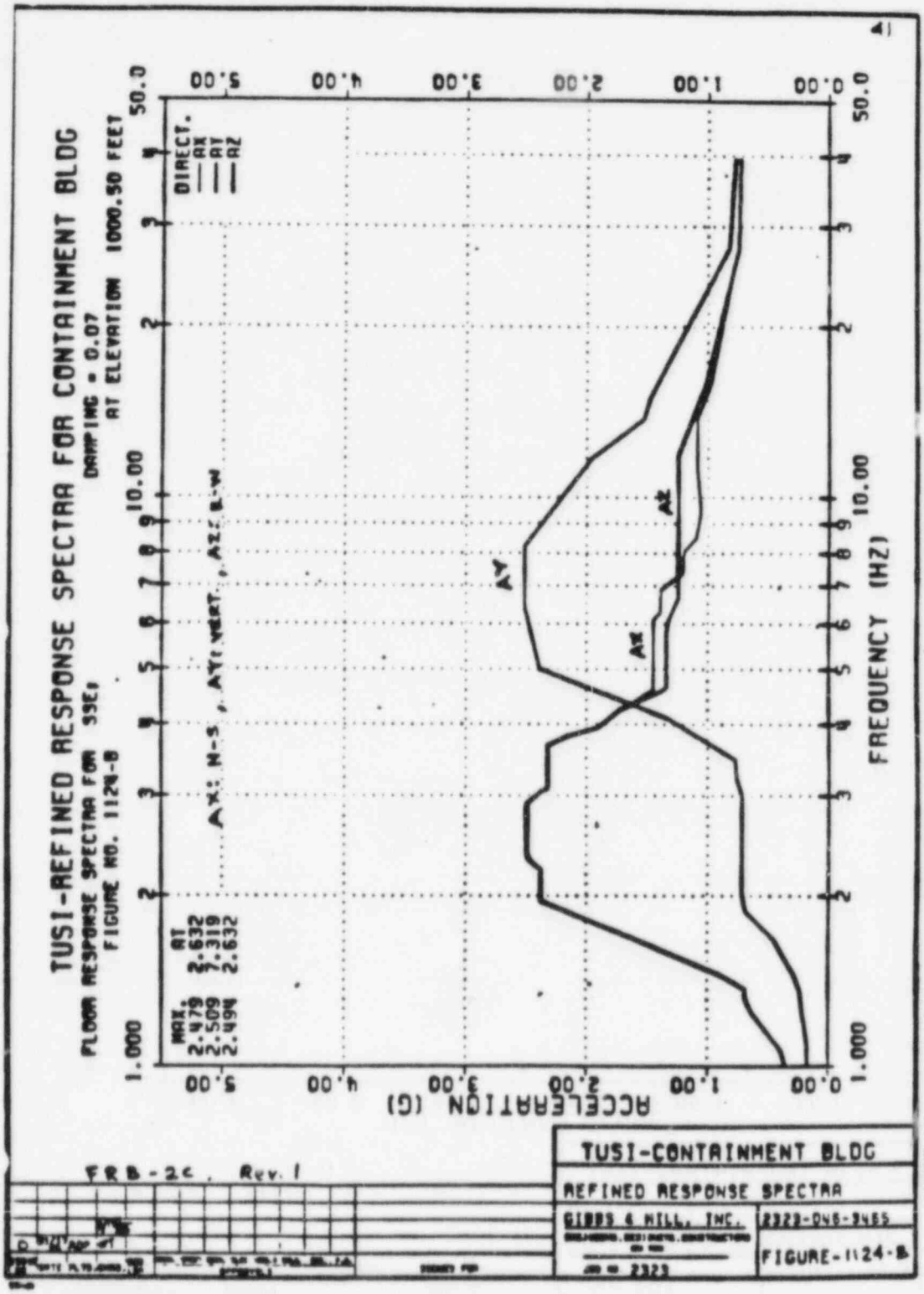

TUSI-REFINED RESPONSE SPECTRA FOR INTERNAL STRUCT.
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 122-B AT ELEVATION 832.50 FEET
AX: N-S, AY: VERT, AZ: E-W
DIRECT.
AX
AY
AZ
MAX. AT
0.9669 5.538
1.530 6.079
1.079 5.277
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUSI-AB INTERNAL STR.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-045-3455
FIGURE-122-B
FRB-3c, Rev.1

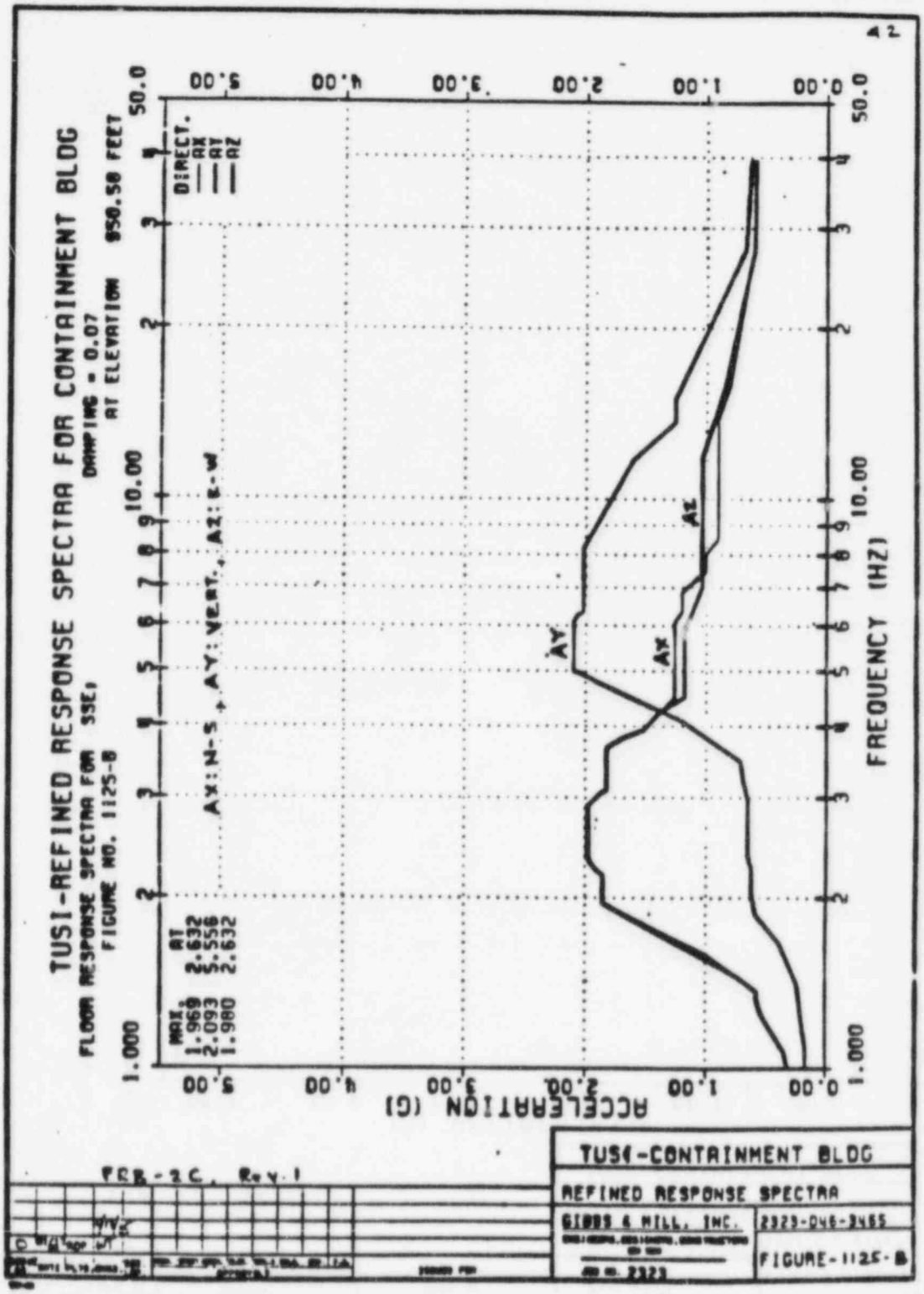

TUSI-REFINED RESPONSE SPECTRA FOR INTERNAL STRUCT.
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 123-8
DAMPING = 0.07
AT ELEVATION 808.00 FEET
AX: N-S, AY: VERT., AZ: E-W
DIRECT.
AX
AY
AZ
MAX AT
0.6678 5.539
1.413 6.079
0.6596 5.277
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUSI-RB INTERNAL STR.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3465
FIGURE-12B-8
FRB-3c, Rev.1
SLIFT 32 (6/14/85)

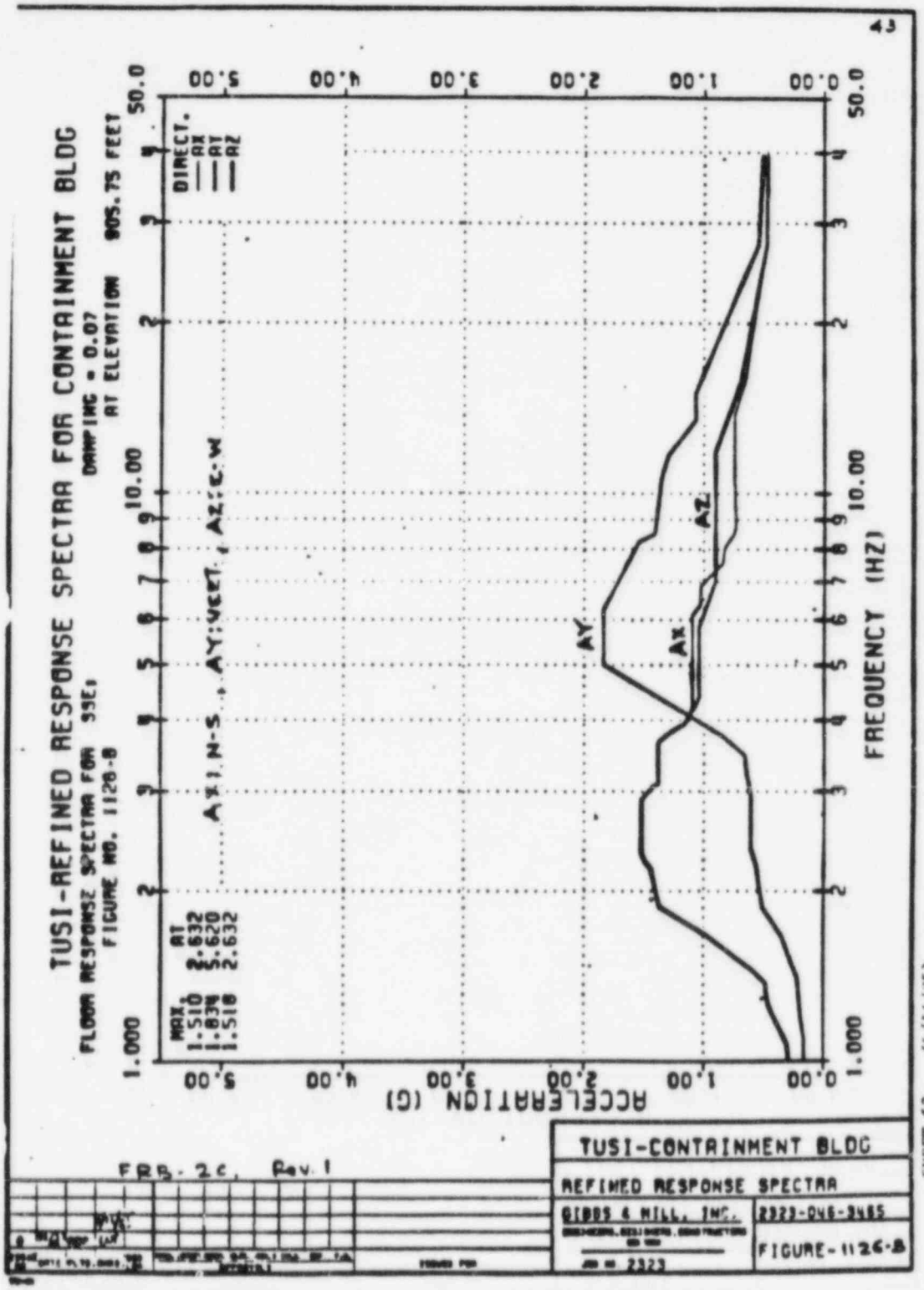

TUSI-REFINED RESPONSE SPECTRA FOR INTERNAL STRUCT.
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 124-B AT ELEVATION 789.50 FEET
AX: N-S , AY: VERT. , AZ: E-W ,
DIRECT.
AX
AY
AZ
MAX. AT
0.4993 5.000
1.308 8.079
0.5381 10.78
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUSI-AB INTERNAL STR.
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3465
FIGURE-124-B
FRB-3C, Rev.1

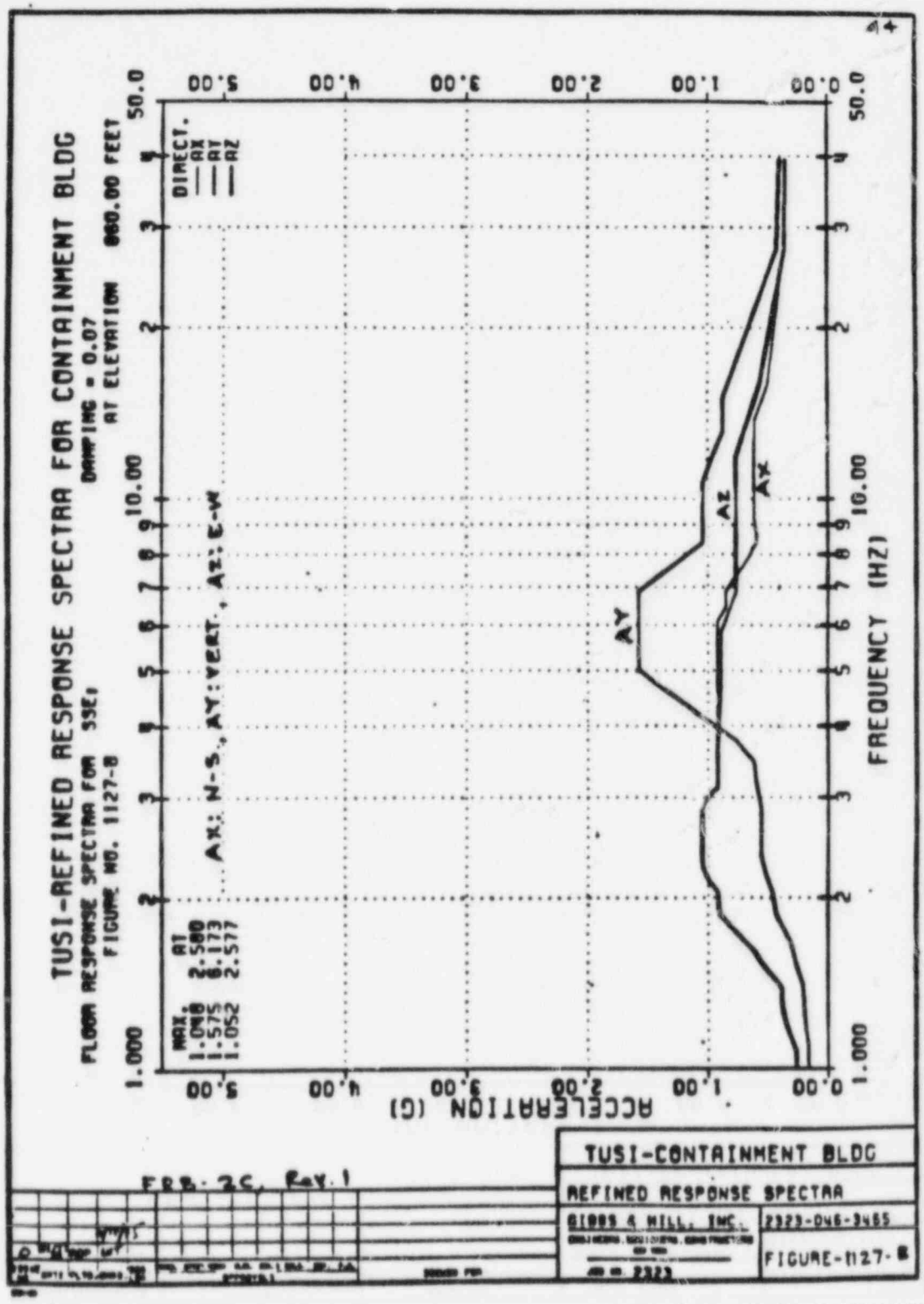
IMPELL CORPORATION

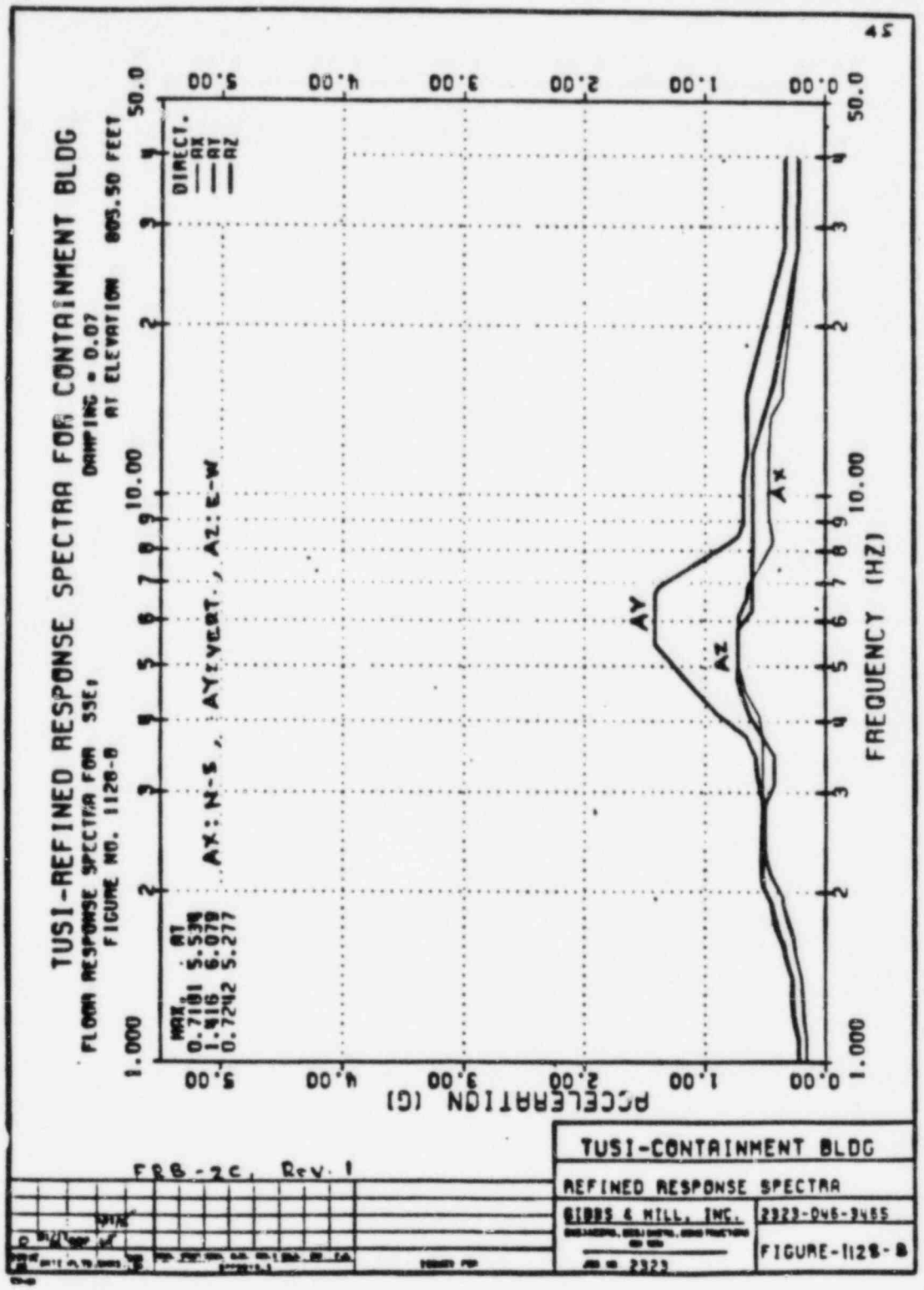
TITLE: RIGOROUS ANALYSIS OF TRAIN "C" ELECTRICAL CONDUITS		
NUMBER: 0210-052-006	REVISION: 1	PAGE D30 OF D80

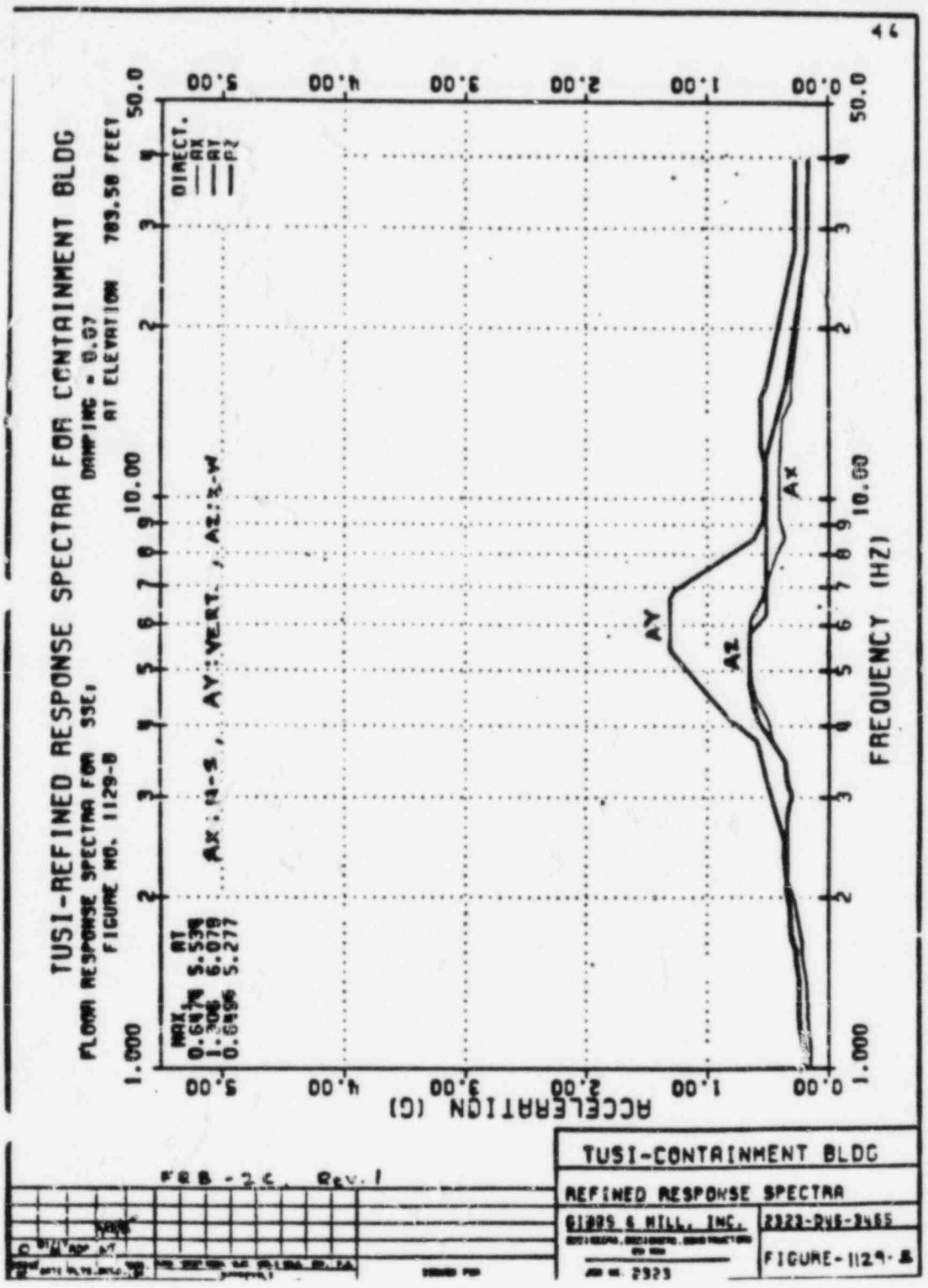


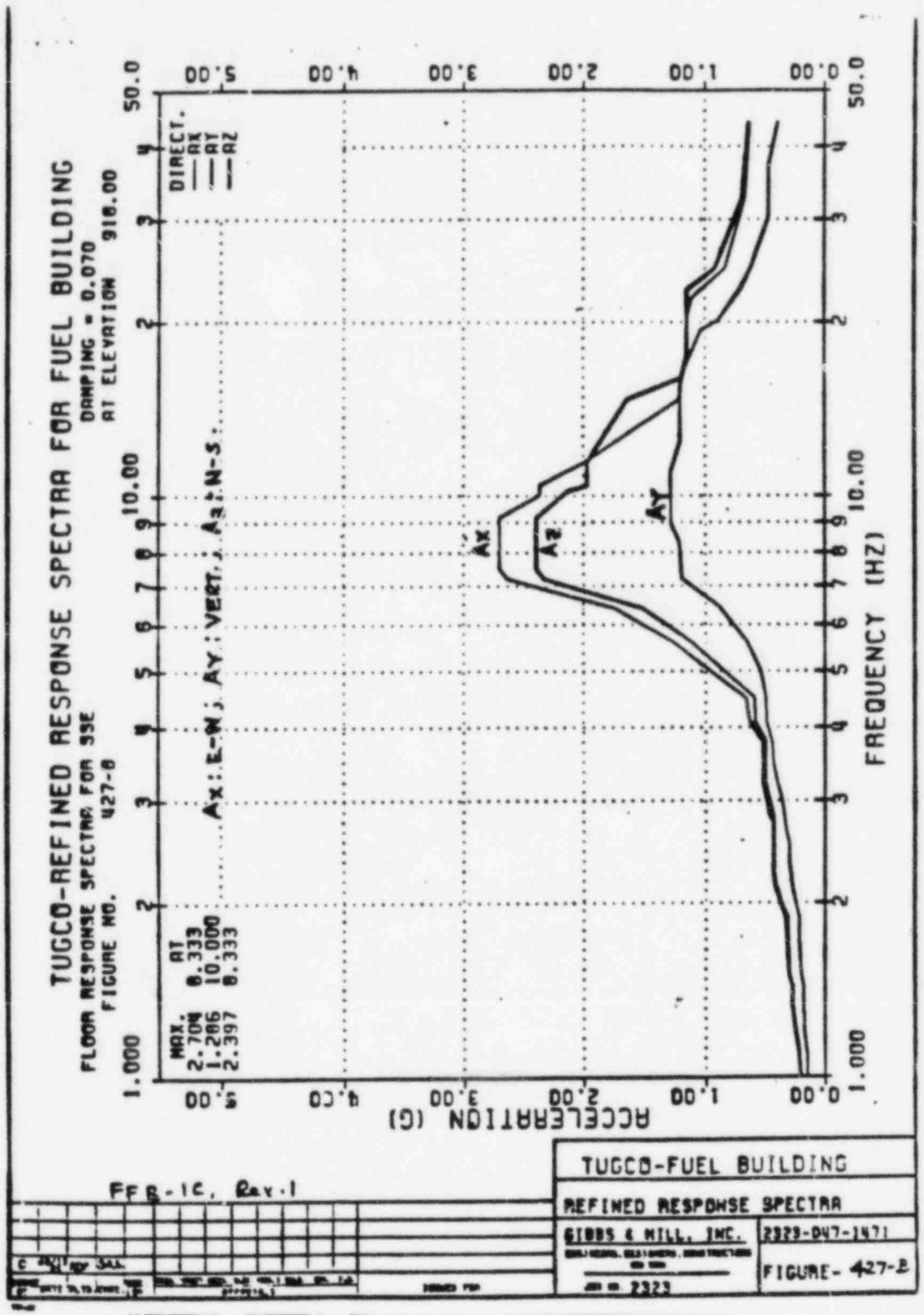

TUSI-REFINED RESPONSE SPECTRA FOR CONTAINMENT BLDG
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1125-8 AT ELEVATION 950.50 FEET
AX: N-S, AY: VERT., AZ: E-W
DIRECT.
AX
AY
AZ
MAX. AT
1.969 2.632
2.093 5.556
1.980 2.632
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUSI-CONTAINMENT BLDG
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-048-3465
FIGURE-1125-8
FEB-2C, Rev.1

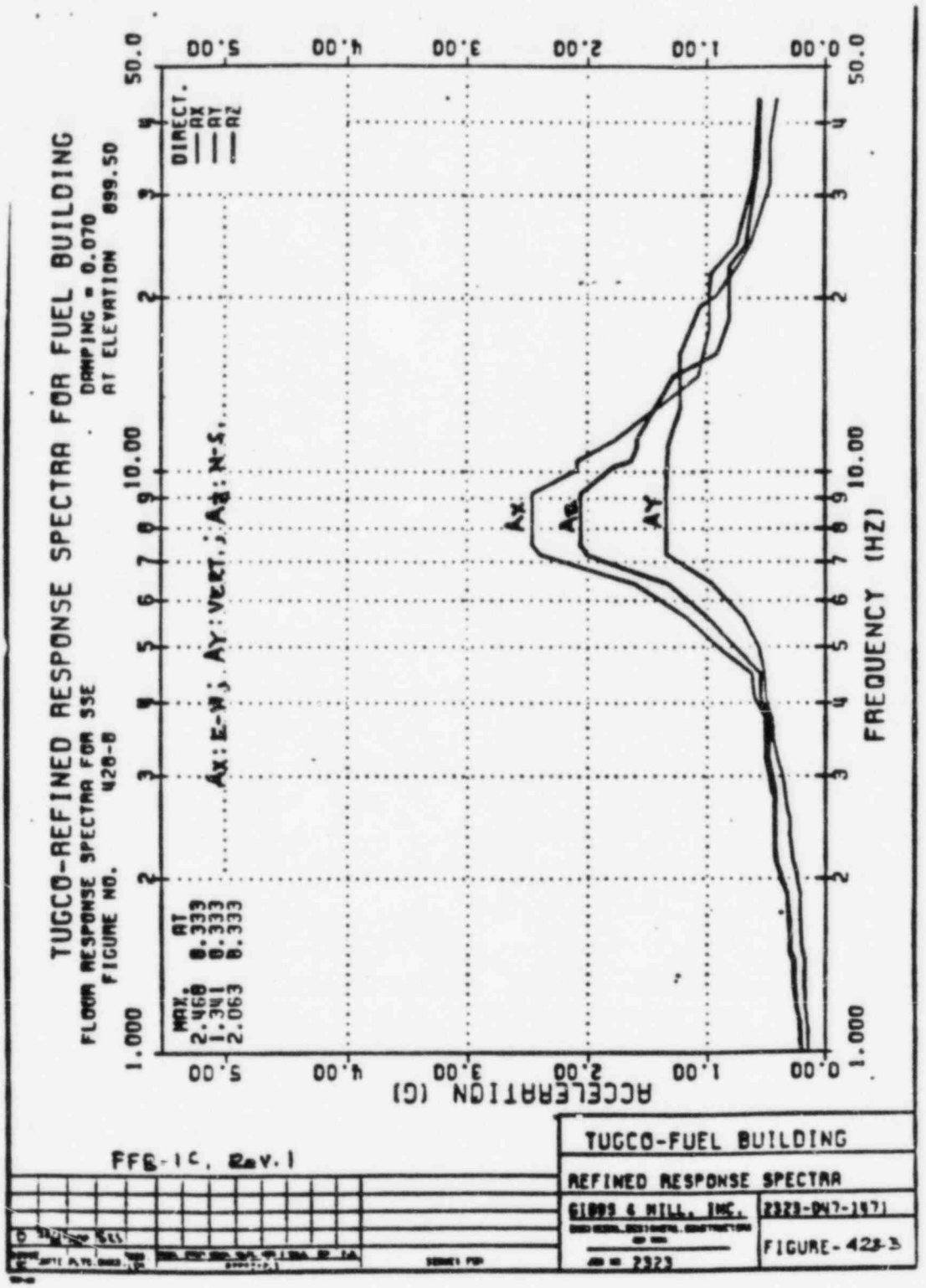

43
TUSI-REFINED RESPONSE SPECTRA FOR CONTAINMENT BLDG
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1126-8 AT ELEVATION 905.75 FEET
AXIS-N-S AY:VERT. AZ:E-W
DIRECT.
AX
AY
AZ
MAX. AT
1.510 2.632
1.838 5.620
1.518 2.632
AX
AY
AZ
ACCELERATION (G)
FREQUENCY (HZ)
1.000
2
3
4
5
6
7
8
9
10.00
50.0
0.00
1.00
2.00
3.00
4.00
5.00
TUSI-CONTAINMENT BLDG
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3485
FIGURE-1126-8
FRB-2c, Rev. 1
SHEET 62 (6/14/85)

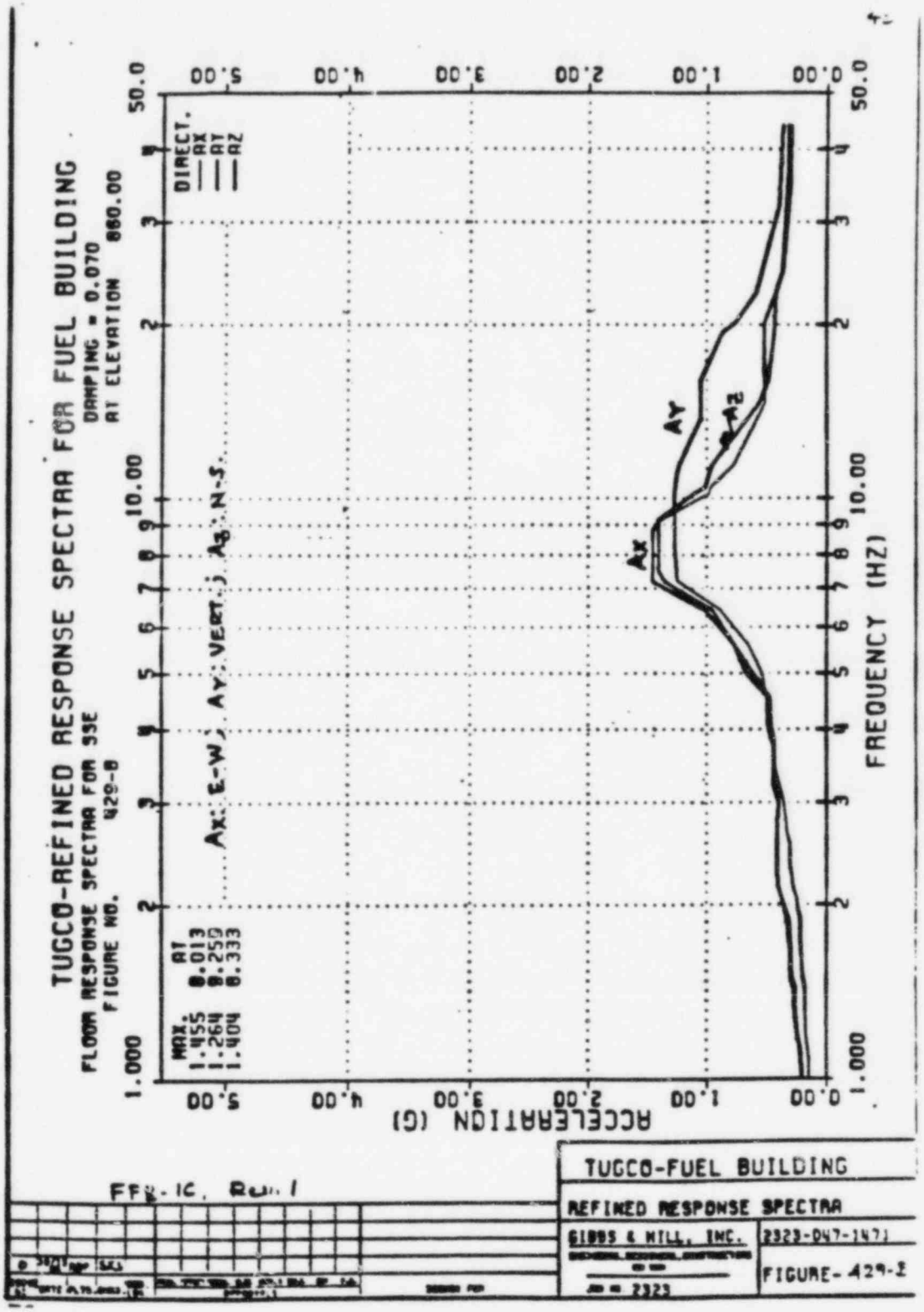

TUSI-REFINED RESPONSE SPECTRA FOR CONTAINMENT BLDG
FLOOR RESPONSE SPECTRA FOR 33E; DAMPING = 0.07
FIGURE NO. 1127-8 AT ELEVATION 860.00 FEET
DIRECT.
AX
AY
AZ
AX: N-S, AY: VERT., AZ: E-W
MAX. AI
1.048 2.500
1.575 6.173
1.052 2.577
AZ
AX
AY
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUSI-CONTAINMENT BLDG
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-046-3485
FIGURE-1127-8
FEB. 26, Rev. 1

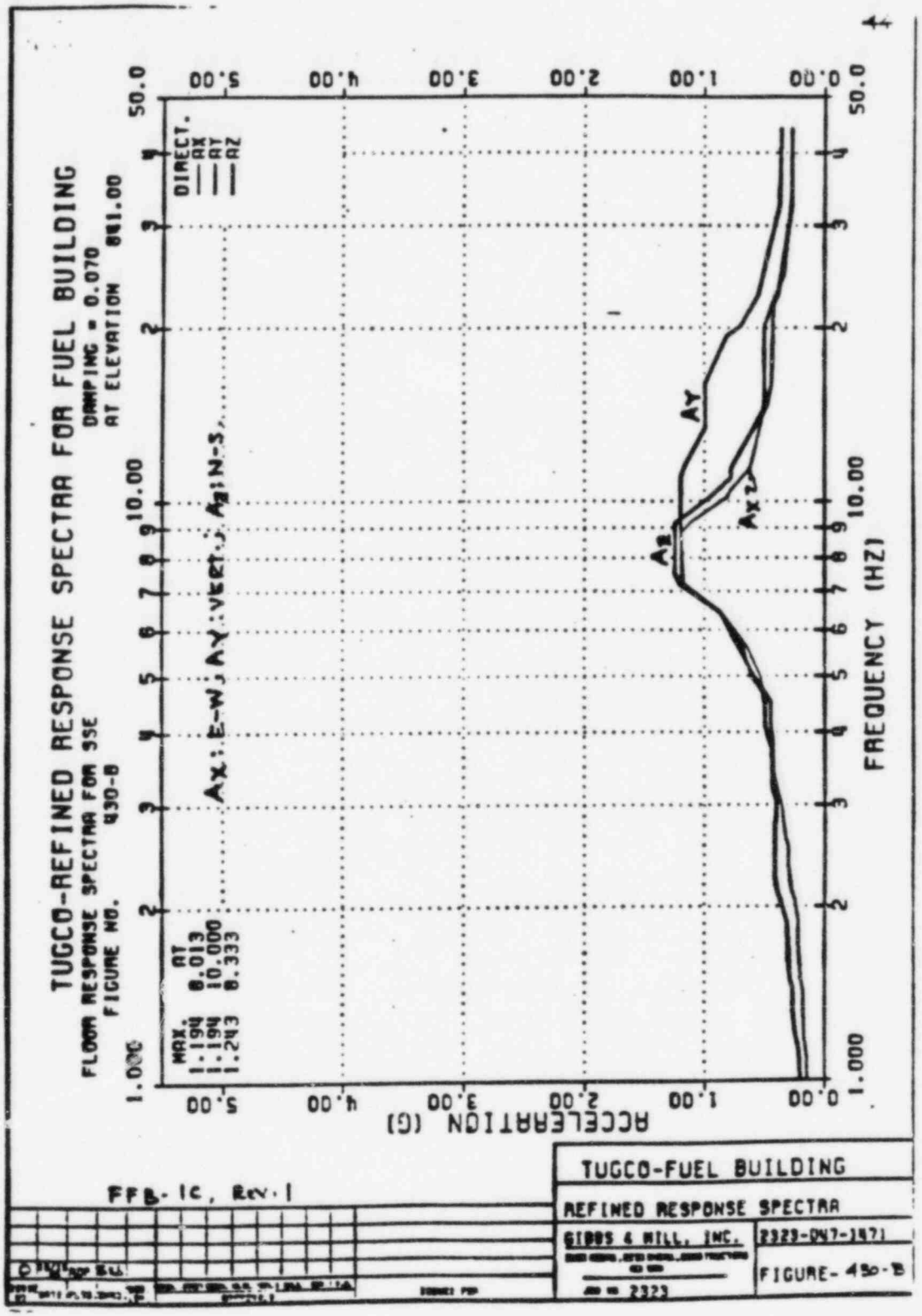

TUSI-REFINED RESPONSE SPECTRA FOR CONTAINMENT BLDG
FLOOR RESPONSE SPECTRA FOR SSE; DAMPING = 0.07
FIGURE NO. 1128-8 AT ELEVATION 805.50 FEET
AX: N-S, AY: VERT., AZ: E-W
DIRECT.
AX
AY
AZ
MAX AT
0.7181 5.536
1.416 6.078
0.7242 5.277
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
0.00
1.00
2.00
3.00
4.00
5.00
TUSI-CONTAINMENT BLDG
REFINED RESPONSE SPECTRA
BIGGS & MILL, INC.
2323-046-3455
FIGURE-1128-8
FRS-2C, Rev. 1

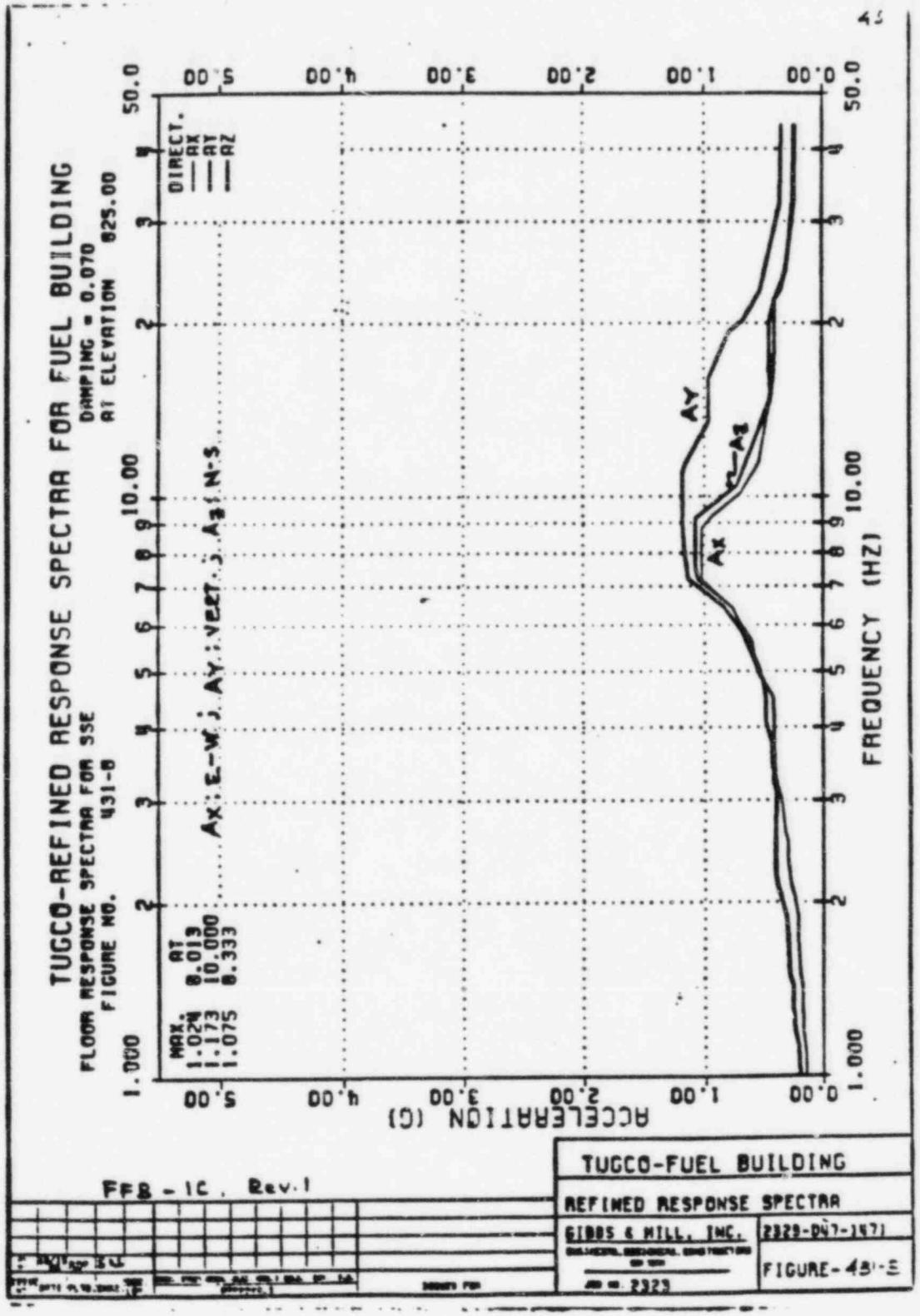

TUSI-REFINED RESPONSE SPECTRA FOR CONTAINMENT BLDG
FLOOR RESPONSE SPECTRA FOR SSE;
FIGURE NO. 1129-8
DAMPING = 0.07
AT ELEVATION 769.50 FEET
DIRECT.
AX
AY
AZ
AX: N-S , AY: VERT , AZ: E-W
MAX AT
0.647g 5.539
1.306 6.078
0.689g 5.277
AX
AY
AZ
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUSI-CONTAINMENT BLDG
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-DYS-3465
FIGURE-1129-8
JOB NO. 2323
FEB - 26, Rev. 1
SHEET 65 (6/14/85)

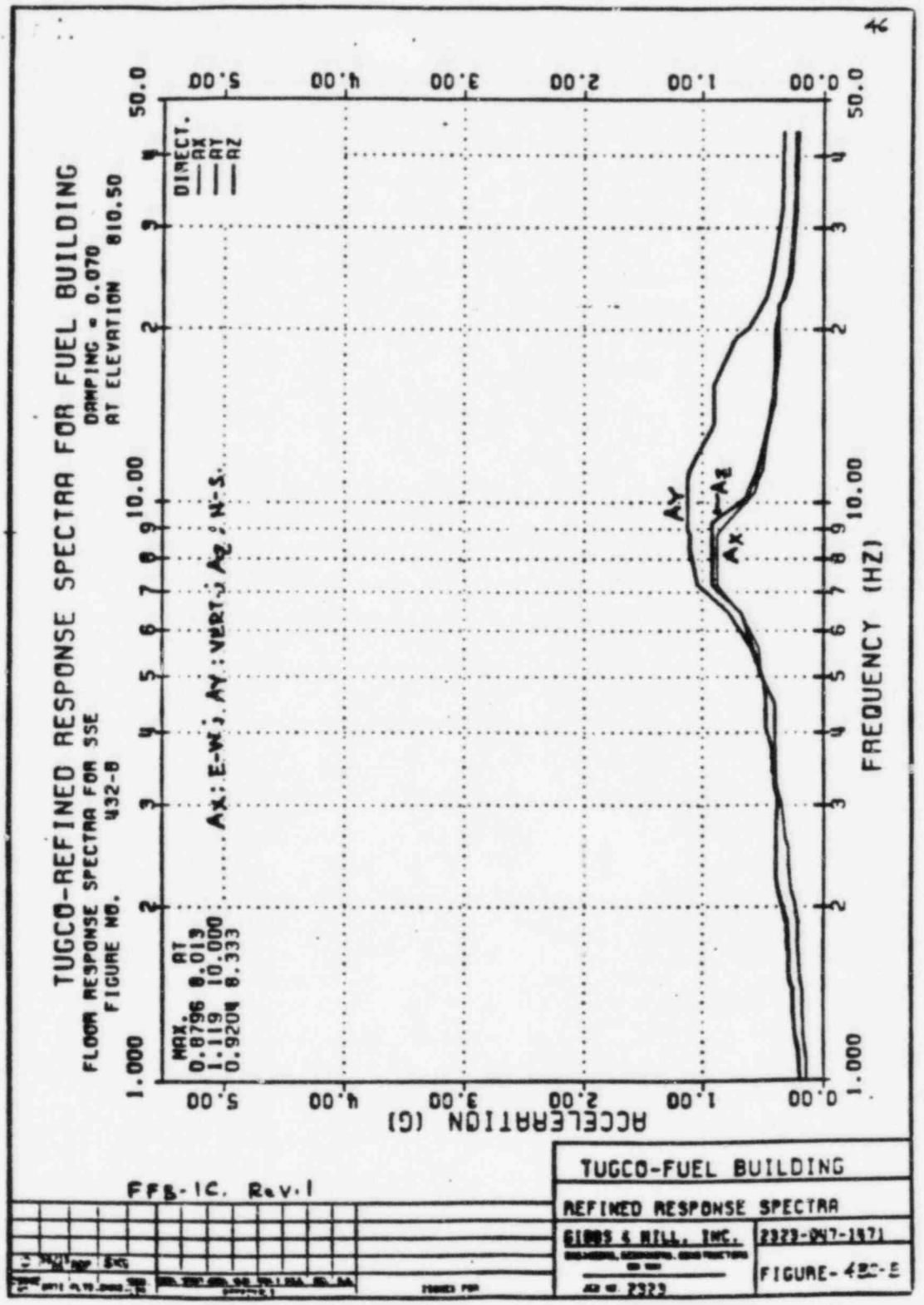

TUGCO-REFINED RESPONSE SPECTRA FOR FUEL BUILDING
DAMPING = 0.070
AT ELEVATION 810.00
FLOOR RESPONSE SPECTRA FOR SSE
FIGURE NO. 427-8
Ax: E-W; Ay: VERT.; Az: N-S.
DIRECT.
AX
AY
AZ
MAX. AT
2.704 0.333
1.286 10.000
2.397 0.333
Ax
Az
Ay
ACCELERATION (G)
FREQUENCY (HZ)
50.0
10.00
1.000
TUGCO-FUEL BUILDING
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-047-1471
FIGURE- 427-8
FFB-1C, Rev.1


TUGCO-REFINED RESPONSE SPECTRA FOR FUEL BUILDING
FLOOR RESPONSE SPECTRA FOR SSE
FIGURE NO. 420-8
DAMPING = 0.070
AT ELEVATION 899.50
Ax: E-W; Ay: VERT.; Az: N-S.
DIRECT.
AX
AY
AZ
MAX. AT
2.468 0.333
1.341 0.333
2.063 0.333
Ax
Az
Ay
ACCELERATION (G)
FREQUENCY (HZ)
1.000
2.00
3.00
4.00
5.00
10.00
50.0
TUGCO-FUEL BUILDING
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-047-197J
FIGURE-423-3
FFB-1C, Rev.1


TUGCO-REFINED RESPONSE SPECTRA FOR FUEL BUILDING
FLOOR RESPONSE SPECTRA FOR OBE
FIGURE NO. 429-8
DAMPING = 0.070
AT ELEVATION 860.00
Ax: E-W; Ay: VERT.; Az: N-S.
DIRECT.
AX
AT
AZ
MAX. AT
1.455 0.013
1.264 0.259
1.404 0.333
Ay
Az
Ax
ACCELERATION (G)
FREQUENCY (HZ)
1.000
2.00
3.00
4.00
5.00
10.00
50.0
TUGCO-FUEL BUILDING
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-047-1471
FIGURE-429-8
FFR-IC, Rev. 1


TUGCO-REFINED RESPONSE SPECTRA FOR FUEL BUILDING
DAMPING = 0.070
AT ELEVATION 881.00
FLOOR RESPONSE SPECTRA FOR SSE
FIGURE NO. 430-B
Ax: E-W; AY: VERT.; Az: N-S
DIRECT.
AX
AY
AZ
MAX. AT
1.194 8.013
1.194 10.000
1.243 8.333
Ay
Ax
Az
ACCELERATION (G)
FREQUENCY (HZ)
1.000
10.00
50.0
TUGCO-FUEL BUILDING
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-0N7-1471
FIGURE-430-B
FFB-1C, Rev. 1


TUGCO-REFINED RESPONSE SPECTRA FOR FUEL BUILDING
DAMPING = 0.070
AT ELEVATION 825.00
FLOOR RESPONSE SPECTRA FOR SSE
FIGURE NO. 431-8
Ax: E-W ; Ay: VERT. ; Az: N-S
DIRECT.
AX
AY
AZ
MAX. AT
1.024 0.013
1.173 10.000
1.075 0.333
Ay
Az
Ax
ACCELERATION (G)
FREQUENCY (HZ)
50.0
10.00
1.000
5.00
4.00
3.00
2.00
1.00
0.0
TUGCO-FUEL BUILDING
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2329-D47-1471
FIGURE-431-8
FFB - 1C, Rev. 1


TUGCO-REFINED RESPONSE SPECTRA FOR FUEL BUILDING
DAMPING = 0.070
AT ELEVATION 810.50
FLOOR RESPONSE SPECTRA FOR SSE
FIGURE NO. 432-8
Ax: E-W ; Ay : VERT ; Az : N-S
DIRECT.
AX
AT
AZ
MAX.
0.8796 0.013
1.119 10.000
0.9204 8.333
Ay
Az
Ax
ACCELERATION (G)
FREQUENCY (HZ)
50.0
10.00
1.000
5.00
4.00
3.00
2.00
1.00
0.00
TUGCO-FUEL BUILDING
REFINED RESPONSE SPECTRA
GIBBS & HILL, INC.
2323-047-1871
FIGURE-432-E
FFB-1C. Rev.1

D.2 SUPERPIPE Digitized Spectra

On the following pages are Digitized listings of the spectra curves in D.1 of this Appendix. These Spectra are in a SUPERPIPE compatible format and have been QA verified [18].

AUXILIARY B899.50SSE

SPAX F G	LUG R AUXILIARY BLDG		ELEV=899.50 DAMP=0.07 SSE			(E-W)	
39.5000	.62223	29.4140	.64515	22.8690	.75100	18.5460	.94450
17.5120	.96988	17.1600	1.06411	16.7420	1.11112	16.1480	1.15193
12.1035	1.14052	11.0000	1.18359	10.4940	1.34607	9.2730	1.49168
8.8880	1.50739	7.8210	2.07225	7.1280	2.66110	7.0290	2.70579
6.9960	2.74448	5.7240	2.71731	5.4630	2.63079	5.0040	1.92045
4.1490	1.90768	4.0860	1.87718	3.8790	1.58158	3.2130	.89555
2.9970	.86275	2.6460	.68596	2.5378	.62063	2.3670	.61449
2.2500	.58496	1.8720	.39903	1.7280	.38018	1.6650	.36294
1.6416	.35712	1.5030	.35358	1.4490	.33491	1.4044	.30123
1.3230	.29825	1.2870	.29282	1.1970	.26701	1.1250	.22981
.9450	.21229	.9000	.20003				

SPAY F G	LUG R AUXILIARY BLDG		ELEV=899.50 DAMP=0.07 SSE			(VERT)	
39.5000	.56237	36.3000	.57689	27.0930	.74986	20.0310	1.21012
17.5120	1.70203	17.1600	1.74170	16.7420	1.78682	16.1480	1.80835
13.2038	1.79045	12.3200	1.86949	7.6000	1.85098	7.1280	2.09291
6.9960	2.10177	6.8750	2.13068	5.6250	2.10958	5.4630	2.02158
5.0040	1.75604	4.5000	1.72499	3.7530	1.18604	3.4650	1.00219
3.2130	.82611	2.5020	.44090	2.3670	.41580	2.1420	.36961
2.0430	.33332	1.9530	.29251	1.7280	.24671	1.5480	.23131
1.5030	.22671	1.4040	.20432	1.1970	.18752	1.1250	.17097
.9990	.15517	.9450	.15022	.9000	.14375		

SPAZ F G	LUG R AUXILIARY BLDG		ELEV=899.50 DAMP=0.07 SSE			(N-S)	
39.5000	.51410	29.4140	.54631	26.9487	.54090	22.8690	.63289
16.1480	.71525	14.4367	.70817	14.2120	.71884	13.6950	.76299
12.3200	.81907	10.4940	1.27698	9.2730	1.59149	8.8880	1.65527
7.8540	2.18015	7.0290	2.37984	5.7510	2.35628	5.6250	2.32775
5.4630	2.12337	5.0420	1.55742	4.0860	1.54200	4.0318	1.54038
3.7530	1.52513	3.4650	1.25599	2.9970	.91355	2.8170	.85504
2.6460	.78831	2.5020	.63403	2.3670	.61239	2.2500	.55897
2.1420	.49494	2.0430	.47403	1.8720	.39767	1.7280	.39654
1.6650	.36076	1.5480	.35618	1.5030	.34718	1.4490	.32062
1.4140	.29486	1.3230	.29194	1.2870	.28817	1.1970	.26851
1.1250	.23067	.9450	.20569	.9000	.19319		

AUXILIARY 8886.50SSE

SPAX F G	LOG R AUXILIARY BLDG		ELEV=886.50 DAMP=0.07 SSE			(E-W)	
39.5000	.51003	22.8690	.58480	18.5460	.70289	17.5120	.73277
17.1600	.77634	16.7420	.80550	16.1480	.82684	12.3200	.87064
11.0000	.99668	10.4940	1.11580	9.2730	1.26010	8.8880	1.28799
7.8210	1.78735	7.1280	2.32345	6.9960	2.38791	5.7240	2.36427
5.6250	2.34601	5.4630	2.29785	5.0067	1.72322	4.1490	1.70616
4.0860	1.67876	3.7530	1.33504	3.2130	.82931	2.9970	.80329
2.6460	.64994	2.5409	.59682	2.3670	.59091	2.2500	.56185
1.8720	.38642	1.7280	.37073	1.6650	.35550	1.6391	.34936
1.5480	.34590	1.5030	.34545	1.4490	.32640	1.4080	.29618
1.3230	.29325	1.2870	.28811	1.1970	.26415	1.1250	.22733
.9450	.21004	.9000	.19740				

SPAY F G	LOG R AUXILIARY BLDG		ELEV=886.50 DAMP=0.07 SSE			(VERT)	
39.5000	.56104	36.3000	.56166	29.4140	.65059	27.0930	.71568
20.0310	1.17325	17.5120	1.64515	17.1600	1.68354	16.7420	1.72247
16.1480	1.74833	14.1354	1.73102	13.6950	1.76648	12.3200	1.84760
7.7000	1.82931	6.8750	2.17824	5.6250	2.15667	5.0040	1.79465
4.5000	1.75471	3.7530	1.18243	2.9970	.69704	2.5020	.44026
2.3670	.41592	2.1420	.37021	2.0430	.33369	1.9530	.29372
1.8000	.26330	1.7280	.24724	1.5480	.23217	1.5030	.22773
1.4040	.20509	1.1970	.18764	1.1250	.17177	.9450	.15097
.9000	.14405						

SPAZ F G	LOG R AUXILIARY BLDG		ELEV=886.50 DAMP=0.07 SSE			(N-S)	
39.5000	.46974	29.4140	.49088	27.0930	.49322	22.8690	.56985
20.0310	.59777	16.7420	.63021	16.1480	.63785	14.5187	.63153
13.6950	.68532	12.3200	.74799	10.4940	1.17826	9.2730	1.47368
8.8880	1.53491	7.8540	2.01952	7.0290	2.20194	5.7510	2.18014
5.7240	2.17579	5.6250	2.15497	5.4630	1.97223	5.0321	1.43327
4.0860	1.41908	4.0676	1.42889	3.7530	1.41474	3.4650	1.18106
2.9970	.86167	2.8170	.81072	2.6460	.75221	2.5020	.60942
2.3670	.59422	2.2500	.54502	2.1420	.48710	2.0430	.46400
1.8720	.38952	1.7280	.38481	1.6650	.35569	1.5480	.35135
1.5030	.34236	1.4490	.31618	1.4163	.29184	1.3230	.28895
1.2870	.28508	1.1970	.26637	1.1250	.22959	.9450	.20513
.9000	.19206						

AUXILIARY 8873.50SSE

SPAX F G	LOG R AUXILIARY BLDG		ELEV=873.50 DAMP=0.07 SSE			(E-W)	
39.5000	.41519	22.8690	.45772	16.7420	.55267	16.1480	.56104
15.2570	.56235	12.3200	.65045	10.4940	.89264	9.2730	1.03444
8.8880	1.07395	7.8210	1.50756	7.1280	1.99109	6.9960	2.01661
6.8750	2.03887	5.6250	2.01868	5.4630	1.96948	5.0213	1.52165
4.1490	1.50658	4.0860	1.48213	3.7530	1.21055	3.2130	.76399
2.9970	.74454	2.6460	.61443	2.5453	.57343	2.3670	.56775
2.2500	.53907	1.8720	.37405	1.7280	.36152	1.6650	.34829
1.6380	.34248	1.5480	.33909	1.5030	.33747	1.4490	.31803
1.4116	.29126	1.3230	.28838	1.2870	.28354	1.1970	.26143
1.1250	.22500	.9450	.20784	.9000	.19485		

SPAY F G	LOG R AUXILIARY BLDG		ELEV=873.50 DAMP=0.07 SSE			(VERT)	
39.5000	.58287	29.4140	.62423	27.0930	.68866	20.0310	1.15141
17.5120	1.60744	17.1600	1.64488	16.7420	1.67913	16.1480	1.71024
14.6220	1.69331	14.2120	1.75487	13.6950	1.79002	12.3200	1.83879
10.0800	1.82058	7.8540	1.82748	7.1280	2.19342	6.8750	2.24113
5.6250	2.21894	5.0040	1.85110	4.5000	1.80833	3.7530	1.20544
3.4650	1.01007	2.9970	.70513	2.5020	.44440	2.3670	.41921
2.1420	.37257	2.0430	.33550	1.9530	.29631	1.8000	.26625
1.7280	.24896	1.5480	.23357	1.5030	.22932	1.4040	.20642
1.2870	.19642	1.1970	.18806	1.1250	.17282	.9450	.15192
.9000	.14444						

SPAZ F G	LOG R AUXILIARY BLDG		ELEV=873.50 DAMP=0.07 SSE			(N-S)	
39.5000	.42379	29.4140	.43906	20.0310	.53877	16.7420	.58019
16.1480	.58947	14.3029	.58363	12.3200	.67505	10.4940	1.07723
9.2730	1.35411	9.1630	1.35805	7.8540	1.85766	7.0290	2.02309
5.7510	2.00306	5.7240	2.00060	5.6250	1.98124	5.4630	1.82031
5.0206	1.30873	4.9940	1.29577	4.5870	1.31720	3.7530	1.30416
2.9970	.80969	2.8170	.76631	2.6460	.71601	2.5020	.58472
2.3670	.57587	2.0430	.45388	1.8720	.38126	1.7280	.37300
1.6650	.35053	1.5480	.34652	1.5030	.33745	1.4490	.31164
1.4184	.28873	1.3230	.28587	1.2870	.28189	1.1970	.26423
1.1250	.22852	.9450	.20456	.9000	.19093		

AUXILIARY B852.50SSE

SPAX F G	LOG R AUXILIARY BLDG		ELEV=852.50 DAMP=0.07 SSE			(E-W)	
39.5000	.36451	29.4140	.36913	22.0000	.41612	20.0310	.42767
18.5460	.42905	16.1480	.47273	15.2570	.48901	13.7165	.48417
12.3200	.51791	10.4940	.69134	8.8880	.86011	7.8210	1.22400
7.1280	1.65349	6.9960	1.67524	6.8750	1.70653	5.6250	1.68963
5.4630	1.62450	5.0040	1.27340	4.9253	1.27925	4.1490	1.26658
4.0860	1.24137	3.7530	1.05725	3.2130	.69769	2.9970	.67304
2.6460	.57066	2.5525	.54394	2.3670	.53855	2.2500	.51161
1.8720	.35983	1.7280	.35154	1.6650	.33882	1.6389	.33442
1.5480	.33111	1.5030	.32855	1.4490	.30879	1.4159	.28607
1.3230	.28324	1.2870	.27793	1.1970	.25761	1.1250	.22217
.9450	.20587	.9000	.19232				

SPAY F G	LOG R AUXILIARY BLDG		ELEV=852.50 DAMP=0.07 SSE			(VERT)	
39.5000	.54579	29.4140	.56215	27.0930	.59517	20.0310	1.02987
17.5120	1.44353	17.1600	1.48880	16.7420	1.52202	16.1480	1.55639
14.6596	1.54098	14.2120	1.59693	13.6950	1.63785	12.3200	1.71991
10.0800	1.70288	7.8540	1.74929	7.1280	2.10590	6.8750	2.14829
5.6250	2.12702	5.0040	1.77196	4.5000	1.72996	3.7530	1.16681
2.9970	.68958	2.5020	.43609	2.3670	.41274	2.1420	.36783
2.0430	.33131	1.9530	.29224	1.8000	.26231	1.7280	.24612
1.5030	.22708	1.4040	.20412	1.1970	.18759	1.1250	.17149
.9450	.15112	.9000	.14369				

SPAZ F G	LOG R AUXILIARY BLDG		ELEV=852.50 DAMP=0.07 SSE			(N-S)	
39.5000	.37033	22.8690	.39942	20.0310	.45851	18.5460	.47487
17.1600	.48661	16.7420	.49467	15.8897	.48977	12.3200	.55180
9.2730	1.13299	9.1630	1.13702	7.8540	1.59208	7.8210	1.59729
7.0290	1.73656	5.7510	1.71937	5.7240	1.71896	5.6250	1.70467
5.4630	1.58123	5.0040	1.12964	4.7237	1.11846	4.5870	1.14223
3.7530	1.13092	2.9970	.73574	2.6460	.65600	2.5020	.55108
2.3670	.54696	2.0430	.43667	1.8720	.36661	1.5480	.33728
1.5030	.32939	1.4490	.30442	1.4214	.28391	1.3230	.28110
1.2870	.27695	1.1970	.26045	1.1250	.22557	.9450	.20318
.9000	.18891						

AUXILIARY B831.50SSE

SPAX F G	LOG R AUXILIARY BLDG		ELEV=831.50 DAMP=0.07 SSE			(E-W)	
39.5000	.28478	29.4140	.29394	20.0310	.34250	18.5460	.34376
17.5120	.37063	16.1480	.40568	13.2120	.40166	12.4830	.40109
12.4470	.40466	12.1665	.40065	11.0000	.45830	9.2730	.65662
9.1630	.67367	8.8575	.66700	7.8540	.79224	7.1280	1.12416
7.0290	1.14841	6.8750	1.18290	5.6250	1.17119	5.4630	1.12710
5.0436	.97238	4.1490	.96275	4.0860	.95354	3.7530	.85363
3.4650	.73154	3.2130	.60774	2.9970	.57922	2.5846	.50510
2.3670	.50010	2.2500	.47318	2.0430	.40658	1.8720	.34074
1.7280	.33787	1.6650	.32560	1.6372	.32123	1.5480	.31805
1.5030	.31478	1.4490	.29524	1.4211	.27755	1.3230	.27480
1.2870	.27088	1.1970	.25284	1.1250	.21827	.9450	.20170
.9000	.18751						

SPAY F G	LOG R AUXILIARY BLDG		ELEV=831.50 DAMP=0.07 SSE			(VERT)	
39.5000	.51664	27.0930	.53613	22.8690	.65934	22.0000	.71978
20.0310	.85756	17.5120	1.22483	17.1600	1.26636	16.7420	1.29015
16.1480	1.32355	14.7160	1.31045	14.2120	1.37003	13.6950	1.41626
12.3200	1.52075	10.0800	1.50569	9.8789	1.48508	9.1630	1.47038
7.8540	1.65795	7.1280	2.00541	6.8750	2.04278	5.6250	2.02255
5.0040	1.68545	4.5000	1.65422	3.7530	1.14002	3.4650	.96475
3.2130	.79877	2.5020	.42867	2.3670	.40781	2.1420	.36307
2.0430	.32694	1.9530	.28868	1.7280	.24388	1.5480	.22893
1.5030	.22448	1.4040	.20157	1.1970	.18524	1.1250	.16947
.9450	.14942	.9000	.14252				

SPAZ F G	LOG R AUXILIARY BLDG		ELEV=831.50 DAMP=0.07 SSE			(N-S)	
39.5000	.31577	22.8690	.34371	18.5460	.42632	17.5120	.44572
17.1600	.45144	16.7420	.45732	16.1480	.46217	14.0331	.45759
13.9370	.46649	12.2946	.46187	11.0000	.61872	10.4940	.72598
9.2730	.84562	9.1630	.84577	7.8540	1.23436	7.8210	1.24150
7.0290	1.35248	6.9960	1.36858	5.7240	1.35503	5.6250	1.34552
5.4630	1.26999	5.0040	.93222	4.6613	.92299	4.5870	.94401
3.7530	.93466	3.4650	.84347	3.2130	.75224	2.9970	.65268
2.6460	.58781	2.5020	.51330	2.3670	.51310	2.0430	.41667
1.8720	.35002	1.5480	.32628	1.5030	.31911	1.4490	.29534
1.4249	.27852	1.3230	.27576	1.2870	.27094	1.1970	.25554
1.1250	.22255	.9450	.20079	.9000	.18601		

AUXILIARY 8810.50SSE

SPAX F G	LOG R AUXILIARY BLDG		ELEV=810.50 DAMP=0.07 SSE			EE-W)	
39.5000	.22188	27.0930	.25125	20.0310	.29375	17.1600	.29807
16.1480	.32341	13.6950	.38095	11.0952	.37708	11.0000	.37871
10.4940	.40713	9.2730	.53193	9.1630	.53957	8.8880	.55269
7.8540	.55629	7.1280	.59143	7.0290	.62428	6.9960	.62975
6.8750	.64242	6.6770	.65616	5.2448	.64966	5.0710	.67972
4.1490	.67299	3.7530	.64715	3.4650	.59392	3.2130	.51426
2.7165	.46351	2.3670	.45892	2.1420	.41120	2.0430	.38086
1.8720	.32422	1.7280	.32325	1.6650	.31114	1.6361	.30670
1.5480	.30366	1.5030	.29988	1.4490	.28110	1.4268	.26849
1.3230	.26583	1.2870	.26288	1.1970	.24694	1.1250	.21358
.9450	.19801	.9000	.18339				
SPAY F G	LOG R AUXILIARY BLDG		ELEV=810.50 DAMP=0.07 SSE			EWERT)	
39.5000	.48285	22.0000	.51549	20.0310	.60422	17.5120	.89080
17.1600	.93105	16.7420	.94787	16.1480	.97859	15.2170	.96890
14.2120	1.11021	13.6950	1.15570	12.3200	1.26327	9.6917	1.25076
9.1630	1.39267	8.8880	1.43772	7.8540	1.54469	7.1280	1.86879
6.8750	1.89528	5.6250	1.87651	5.0040	1.56502	4.5000	1.53408
3.7530	1.06961	3.4650	.91438	3.2130	.76039	2.5020	.41365
2.3670	.39552	2.1420	.35358	2.0430	.31858	1.9530	.28273
1.7280	.23895	1.5480	.22472	1.5030	.22003	1.4040	.19700
1.1970	.18279	1.1250	.16663	.9450	.14802	.9000	.14034
SPAZ F G	LOG R AUXILIARY BLDG		ELEV=810.50 DAMP=0.07 SSE			(N-S)	
39.5000	.22964	27.0930	.25191	22.8690	.29254	20.0310	.30576
17.9477	.30273	17.5120	.31489	16.7420	.33273	16.1480	.34000
15.2570	.34389	14.6076	.34049	13.6950	.36998	12.1200	.37288
11.0000	.49125	10.4940	.57529	8.8880	.74742	7.4996	.74002
7.0290	.81593	6.9960	.83105	5.7240	.82282	5.6250	.82265
5.4630	.80798	5.0040	.64152	4.8534	.63517	4.7410	.66078
4.5870	.69850	3.7530	.69158	3.4650	.66534	3.2130	.61769
2.9970	.54078	2.6460	.50109	2.5185	.47288	2.3670	.46820
2.1420	.42027	2.0430	.38851	1.8720	.32805	1.7280	.32332
1.5480	.31052	1.5030	.30415	1.4490	.28261	1.4289	.27011
1.3230	.26744	1.2870	.26395	1.1970	.24968	1.1250	.21729
.9450	.19804	.9000	.18290				

AUXILIARY B790.50SSE

SPAX F G	LOG R AUXILIARY BLDG		ELEV=790.50 DAMP=0.07 SSE			(E-W)	
39.5000	.19019	29.4140	.19920	22.0000	.24852	20.0310	.25972
18.5460	.29004	16.6533	.28717	15.2130	.32534	14.6630	.32782
13.6950	.37820	10.9639	.37446	10.4940	.38477	8.8880	.53712
7.2720	.53180	6.3990	.51668	5.9281	.46202	5.1106	.45745
5.0710	.46168	4.5870	.43278	3.7530	.48790	3.4650	.48069
3.1117	.42700	2.3670	.42277	2.1420	.39265	1.8720	.31031
1.7280	.31005	1.6650	.29877	1.6373	.29532	1.5490	.29240
1.5030	.28784	1.4490	.26985	1.4324	.26164	1.3230	.25905
1.2870	.25673	1.1970	.24222	1.1250	.21030	.9990	.20235
.9450	.19506	.9000	.17985				

SPAY F G	LOG R AUXILIARY BLDG		ELEV=790.50 DAMP=0.07 SSE			(VERT)	
39.5000	.46932	22.0000	.52444	20.0310	.53180	18.5460	.59852
17.5120	.69872	17.1600	.71988	16.7420	.73901	15.2570	.80807
14.6630	.93020	14.2120	1.00099	13.9370	1.03444	13.6950	1.04962
12.3200	1.12405	10.4155	1.11292	9.2730	1.43877	9.1630	1.46656
8.8880	1.52404	7.8540	1.52732	7.1280	1.83124	7.0290	1.85850
5.7510	1.84010	5.6250	1.83600	5.0040	1.52512	4.5000	1.47754
3.7530	1.03083	3.4650	.88511	3.2130	.73840	2.5020	.40715
2.3670	.38846	2.1420	.34913	2.0430	.31419	1.9530	.28041
1.7280	.23735	1.5480	.22240	1.5030	.21771	1.4040	.19452
1.2870	.18860	1.1970	.18156	1.1250	.16542	.9450	.14656
.9000	.13949						

SPAZ F G	LOG R AUXILIARY BLDG		ELEV=790.50 DAMP=0.07 SSE			(N-S)	
39.5000	.21470	27.0930	.22901	22.0000	.29259	20.0310	.33961
16.3890	.33625	15.8965	.33334	13.0801	.33004	12.3200	.33622
10.4940	.44832	9.1630	.64983	8.8880	.68799	7.2720	.68118
6.4260	.59051	5.7510	.49406	5.7240	.49310	5.6250	.47731
5.4630	.44021	4.9009	.43585	4.7410	.46646	4.5870	.48960
4.2350	.51494	3.4650	.50984	3.2130	.49209	2.9970	.43659
2.3670	.42500	2.1420	.39602	1.8720	.31274	1.7280	.30980
1.6650	.30123	1.5480	.29583	1.5030	.29035	1.4490	.27102
1.4328	.26229	1.3230	.25969	1.2870	.25680	1.1970	.24352
1.1250	.21280	.9990	.20266	.9450	.19572	.9000	.17998

ELECTRICAL 873.33SSE

SPAX F G	LOG R ELECTRICAL BLDG		ELEV=873.33 DAMP=0.07 SSE			(E-W)	
39.5000	.37702	22.8690	.46029	16.7420	.55052	16.1480	.56502
13.0720	.55943	12.3200	.57209	11.0000	.70841	10.4940	.76296
8.8880	.95519	7.8210	1.36106	7.1280	1.81336	6.9960	1.83500
6.8750	1.86381	5.6250	1.84536	5.4630	1.79221	5.0319	1.41367
4.1490	1.39967	4.0460	1.38422	3.2130	.73765	2.9970	.71576
2.6460	.59505	2.5487	.56024	2.3670	.55469	2.2500	.52687
1.8720	.36808	1.7280	.35685	1.6650	.34399	1.6401	.33978
1.5480	.33642	1.5030	.33416	1.4490	.31409	1.4145	.28953
1.3230	.28666	1.2870	.28140	1.1970	.25925	1.1250	.22373
.9450	.20683	.9000	.19370				
SPAY F G	LOG R ELECTRICAL BLDG		ELEV=873.33 DAMP=0.07 SSE			(VERT)	
39.5000	.50383	29.4140	.72421	27.0930	.76291	22.0000	1.13881
20.0310	1.32096	18.3056	1.30788	17.1600	1.51521	16.7420	1.57416
13.6980	1.55857	13.2120	1.55591	10.4940	1.49663	8.8880	1.56248
7.7759	1.54701	7.1280	1.75468	7.0290	1.79025	5.7510	1.77252
5.7240	1.77200	5.4630	1.65757	5.0040	1.37956	4.5000	1.35475
4.0860	1.17574	3.7530	.87744	3.4650	.74765	2.9970	.56709
2.5020	.38534	2.3670	.37175	2.1420	.33627	2.0430	.30152
1.8000	.24546	1.7280	.23035	1.5480	.22083	1.5030	.21571
1.4490	.19881	1.1970	.17886	1.0620	.15133	.9990	.15077
.9450	.14507	.9000	.13597				
SPAZ F G	LOG R ELECTRICAL BLDG		ELEV=873.33 DAMP=0.07 SSE			(N-S)	
39.5000	.38281	34.5248	.37902	29.4140	.40273	27.0930	.40847
22.8690	.48111	20.9979	.47635	20.0310	.49361	18.5460	.51893
14.9054	.51379	12.3200	.60465	10.4940	.92566	9.2730	1.14226
9.1630	1.15793	8.8880	1.19794	7.8540	1.56107	7.8210	1.57061
7.0290	1.78556	5.7510	1.76788	5.7240	1.76720	5.6250	1.72351
5.4630	1.60905	5.0751	1.23544	3.7530	1.22321	2.9970	.77795
2.6460	.69190	2.5020	.56602	2.3670	.55996	2.2500	.52034
1.8720	.37531	1.7280	.36304	1.5480	.34130	1.5030	.33243
1.4490	.30615	1.4230	.28708	1.3230	.28424	1.2870	.27894
1.1970	.26132	1.1250	.22723	.9450	.20365	.9000	.18924

ELECTRICAL 854.33SSE

SPAX F G	LOG R ELECTRICAL BLDG		ELEV=854.33 DAMP=0.07 SSE			(E-W)	
39.5000	.34596	27.0930	.36175	22.8690	.41785	22.0000	.42751
20.0310	.43418	18.5460	.43729	17.5120	.46989	16.1480	.50576
12.1497	.50075	8.8880	.81764	7.8210	1.17120	7.1280	1.58017
6.9960	1.60006	6.8750	1.63418	5.6250	1.61800	5.4630	1.55455
5.0087	1.24250	4.1490	1.23020	4.0860	1.21035	3.7530	1.03757
3.2130	.68850	2.9970	.66325	2.6460	.56344	2.5537	.53854
2.3670	.53321	2.2500	.50708	1.8720	.35689	1.7280	.34994
1.6650	.33702	1.6398	.33314	1.5480	.32984	1.5030	.32705
1.4490	.30704	1.4170	.28511	1.3230	.28229	1.2870	.27749
1.1970	.25707	1.1250	.22188	.9450	.20488	.9000	.19131
SPAY F G	LOG R ELECTRICAL BLDG		ELEV=854.33 DAMP=0.07 SSE			(VERT)	
39.5000	.51765	36.3000	.51831	29.4140	.66339	27.0930	.71214
20.0310	1.25916	18.4228	1.24669	17.5120	1.40200	17.1600	1.45398
16.7420	1.51733	13.6980	1.50231	13.2120	1.49586	10.4940	1.49781
8.8880	1.57332	7.7229	1.55774	7.1280	1.75702	7.0290	1.77372
6.9960	1.79213	5.7240	1.77439	5.4630	1.67263	5.0040	1.41756
4.5000	1.41308	4.0860	1.25243	3.8790	1.06237	3.4650	.79568
2.9970	.58827	2.5020	.39578	2.3670	.37811	2.1420	.33909
2.0430	.30396	1.8000	.24746	1.5480	.22124	1.5030	.21611
1.4490	.19940	1.1970	.17949	1.0620	.15166	.9990	.15120
.9450	.14531	.9000	.13548				
SPAZ F G	LOG R ELECTRICAL BLDG		ELEV=854.33 DAMP=0.07 SSE			(N-S)	
39.5000	.32552	29.4140	.33781	18.5460	.43397	16.7420	.44782
15.2570	.47857	12.3200	.53915	11.0000	.73551	10.4940	.86914
9.1630	1.01066	8.8880	1.04099	7.8540	1.36810	7.8210	1.37845
7.0290	1.54781	6.9960	1.56539	5.7240	1.54989	5.6250	1.50776
5.4630	1.42111	5.0252	1.08725	3.7530	1.07649	3.2130	.83032
2.9970	.71745	2.6460	.64116	2.5020	.53544	2.3670	.53470
2.2500	.49936	2.0430	.42875	1.9530	.38218	1.8720	.36282
1.7280	.34709	1.5480	.33369	1.5030	.32539	1.4490	.29993
1.4256	.28309	1.3230	.28029	1.2870	.27480	1.1970	.25807
1.1250	.22453	.9450	.20241	.9000	.18696		

ELECTRICAL 830.00SSE

SPAX F G	LOG R ELECTRICAL BLDG		ELEV=830.00 DAMP=0.07 SSE			(E-W)	
39.5000	.28000	27.0930	.31189	20.0310	.33269	16.1480	.41905
12.8287	.41490	11.0000	.43978	9.2730	.64617	9.1630	.66245
8.9173	.65589	7.8540	.78726	7.1280	1.10980	7.0290	1.13482
6.8750	1.16955	5.6250	1.15797	5.4630	1.10662	5.0053	.94198
4.1490	.93265	4.0860	.92700	3.7530	.83564	3.4650	.72010
3.2130	.59997	2.9970	.57043	2.5917	.50112	2.3670	.49616
2.2500	.46895	2.0430	.40428	1.8720	.33885	1.7280	.33577
1.6650	.32425	1.6380	.32022	1.5480	.31705	1.5030	.31376
1.4490	.29417	1.4218	.27702	1.3230	.27428	1.2870	.27040
1.1970	.25137	1.1250	.21720	.9450	.20135	.9000	.18714
SPAY F G	LOG R ELECTRICAL BLDG		ELEV=830.00 DAMP=0.07 SSE			(VERT)	
39.5000	.49228	27.0930	.53349	20.0310	.98802	18.5460	1.06470
17.5120	1.23565	17.1600	1.27618	16.7420	1.33030	11.0000	1.31713
10.4940	1.40289	9.2730	1.42476	8.8880	1.44212	7.7219	1.42784
7.1280	1.64312	6.9960	1.67056	5.7240	1.65402	5.4630	1.57845
5.0040	1.35931	4.5000	1.35296	4.0860	1.19332	3.8790	1.01835
3.4650	.75563	2.9970	.56320	2.6460	.43348	2.5020	.38428
2.3670	.36879	2.1420	.33166	2.0430	.29738	1.8000	.24244
1.5480	.21776	1.5030	.21273	1.4490	.19637	1.1970	.17837
1.0631	.15179	.9990	.15029	.9450	.14439	.9000	.13417
SPAZ F G	LOG R ELECTRICAL BLDG		ELEV=830.00 DAMP=0.07 SSE			(N-S)	
39.5000	.27279	29.4140	.27991	20.0310	.32784	18.5460	.33038
12.3200	.50742	11.0000	.68155	10.4940	.81288	9.1630	.95496
8.8880	.98250	7.8540	1.02129	7.0290	1.15797	6.9960	1.17447
5.7240	1.16284	5.6250	1.14475	5.4630	1.09735	5.0040	.86427
3.7530	.85571	3.2130	.71494	2.9970	.62234	2.6460	.56416
2.5097	.50074	2.3670	.49578	2.2500	.46631	2.1420	.43669
2.0430	.40569	1.8720	.34387	1.5480	.32088	1.5030	.31340
1.4490	.28937	1.4294	.27656	1.3230	.27382	1.2870	.26857
1.1970	.25254	1.1250	.22080	.9450	.19973	.9000	.18438

ELECTRICAL 807.00SSE

SPAX F G	LOG R ELECTRICAL BLDG	ELEV=807.00 DAMP=0.07 SSE		(E-W)		
39.5000	.23150	22.8690	.29723	18.7110	.29429	18.6770	.29675
18.5460	.29381	17.5120	.31536	17.1600	.31869	16.1480	.34481
14.7266	.34140	12.3200	.38079	11.0000	.38187	9.2730	.52945
9.1630	.53776	8.8880	.55198	7.8540	.56648	7.0290	.72965
6.9960	.73459	6.8750	.75750	5.6250	.75000	4.9898	.69220
4.1490	.68535	3.7530	.65539	3.4650	.59948	3.2130	.51889
2.7075	.46505	2.3670	.46045	2.1420	.41289	2.0430	.38251
1.8720	.32488	1.7280	.32349	1.6650	.31225	1.6362	.30778
1.5480	.30473	1.5030	.30111	1.4490	.28228	1.4265	.26946
1.3230	.26679	1.2870	.26311	1.1970	.24701	1.1250	.21371
.9450	.19805	.9000	.18344				

SPAY F G	LOG R ELECTRICAL BLDG	ELEV=807.00 DAMP=0.07 SSE		(VERT)		
39.5000	.49416	27.0930	.51549	22.8690	.58279	22.0000	.63742
20.0310	.76257	17.5120	1.08300	16.7420	1.16785	16.1480	1.18209
11.5000	1.17039	10.4940	1.41540	8.8880	1.50357	7.7147	1.48868
7.1280	1.68875	6.9960	1.71688	5.7240	1.69988	5.6250	1.66883
5.4630	1.60369	5.0040	1.36148	4.5000	1.32575	4.0860	1.17220
3.8790	.99960	3.4650	.74939	2.9970	.56103	2.5020	.38305
2.3670	.36745	2.1420	.33271	2.0430	.29653	1.8000	.24222
1.5480	.21906	1.5030	.21410	1.4490	.19774	1.3590	.18710
1.1970	.17887	1.0620	.15112	.9990	.15040	.9450	.14454
.9000	.13469						

SPAZ F G	LOG R ELECTRICAL BLDG	ELEV=807.00 DAMP=0.07 SSE		(N-S)		
39.5000	.25894	27.0930	.27487	22.0000	.32463	20.0310	.34049
16.9565	.33712	16.7420	.34095	16.1480	.34605	14.2120	.37752
12.3200	.43309	11.0000	.55102	10.4940	.64907	8.8880	.87800
7.2720	.86931	6.5592	.73719	5.6250	.72989	5.4630	.71699
5.0040	.64521	3.7530	.63882	3.4650	.62007	3.2130	.58915
2.9970	.51770	2.6460	.48309	2.5321	.45955	2.3670	.45500
2.1420	.41287	1.8720	.32347	1.7280	.31956	1.5480	.30637
1.5030	.29983	1.4490	.27823	1.4326	.26877	1.3230	.26611
1.2870	.26189	1.1970	.24747	1.1250	.21608	.9990	.20345
.9450	.19743	.9000	.18168				

ELECTRICAL 778.00SSE

SPAX F G	LOG R ELECTRICAL BLDG		ELEV=778.00 DAMP=0.07 SSE			(E-W)	
39.5000	.18003	27.0930	.20419	22.0000	.25890	20.0310	.27588
18.5460	.27871	16.5473	.27595	14.2120	.31497	13.6950	.32739
12.2925	.32415	10.4940	.37160	9.1630	.41011	6.9960	.41524
5.7240	.41113	5.6250	.41068	5.4633	.40426	5.4466	.40724
5.0710	.40321	4.5870	.41725	4.2350	.43236	3.4650	.42808
3.2130	.40738	2.9049	.40335	2.8930	.40819	2.3670	.40415
2.2500	.39483	2.1420	.38075	1.8795	.31246	1.7280	.30937
1.6650	.29609	1.6344	.29156	1.5480	.28867	1.5030	.28486
1.4490	.26861	1.4399	.26575	1.3230	.26312	1.2870	.26152
1.1970	.24814	1.1250	.21556	.9990	.20914	.9450	.20065
.9000	.18408						

SPAY F G	LOG R ELECTRICAL BLDG		ELEV=778.00 DAMP=0.07 SSE			(VERT)	
39.5000	.48284	29.4140	.49761	20.0310	.56222	18.5460	.68090
17.5120	.80869	17.1600	.84807	16.7420	.87786	16.1480	.91381
14.3324	.90476	14.2120	.91868	13.9370	.95077	12.3200	1.01104
10.4940	1.39550	8.8880	1.51015	7.6637	1.49520	7.1280	1.66922
7.0290	1.70173	5.7510	1.68488	5.7240	1.68435	5.6250	1.65124
5.4630	1.57826	5.0040	1.32686	4.5000	1.25404	4.0860	1.10623
3.7530	.84953	3.2130	.61554	2.5020	.37618	2.3670	.36223
2.1420	.32938	2.0430	.29319	1.8000	.24083	1.5480	.21900
1.5030	.21410	1.4490	.19725	1.3590	.18688	1.1970	.17843
1.1250	.16142	.9450	.14499	.9000	.13575		

SPAZ F G	LOG R ELECTRICAL BLDG		ELEV=778.00 DAMP=0.07 SSE			(N-S)	
39.5000	.20529	27.0930	.21873	22.8690	.26433	20.0310	.33409
16.3890	.33069	16.3048	.33313	13.2120	.32983	13.1044	.33058
12.1969	.32731	11.0000	.39822	10.4940	.42763	9.1630	.60587
8.8880	.63080	7.2720	.62455	6.3990	.55595	5.8320	.45075
5.6250	.44238	5.4630	.40846	5.0040	.39781	4.7725	.39387
4.7410	.39604	4.2350	.43356	3.4650	.42927	3.2130	.42649
3.0890	.40487	2.3670	.40086	2.2500	.39815	2.1420	.38388
1.9808	.31536	1.7280	.31224	1.6650	.29902	1.6345	.29449
1.5480	.29157	1.5030	.28762	1.4490	.27108	1.4402	.26825
1.3230	.26559	1.2870	.26404	1.1970	.25077	1.1250	.21737
.9990	.21092	.9450	.20251	.9000	.18572		

SAFEGUARDS 896.50SSE

SPAX F G	LOG R	SAFEGUARDS BLDG	ELEV=896.50 DAMP=0.07 SSE			(E-W)	
39.5000	.66297	23.7050	.77681	20.4050	.85175	18.4250	.85659
14.6630	1.04328	11.6490	1.41445	11.0000	1.59502	10.0760	1.71472
9.1630	2.42261	8.6570	2.47259	7.0830	2.44811	6.4260	2.42511
6.3720	2.41405	5.2470	2.26383	4.2930	2.24142	4.0950	2.08336
3.7530	1.47182	3.2130	.90234	2.9970	.83915	2.8170	.73799
2.5305	.63730	2.3670	.63099	2.2500	.59235	1.8720	.39741
1.7280	.38485	1.6650	.37018	1.6453	.36710	1.5480	.36347
1.5030	.36230	1.4490	.33991	1.4040	.30163	1.3230	.29913
1.2870	.29155	1.1970	.26435	1.1250	.23001	1.0740	.21969
.9450	.21751	.9000	.20370				

SPAY F G	LOG R	SAFEGUARDS BLDG	ELEV=896.50 DAMP=0.07 SSE			(VERT)	
39.5000	.65565	22.8690	1.33526	17.3470	2.02719	14.1930	2.00712
13.4370	1.99816	12.9005	1.84434	8.2440	1.82608	8.2260	1.82423
5.6250	1.61893	5.2832	1.49971	4.5000	1.48486	4.2930	1.43482
4.0950	1.29652	3.7530	.88498	3.4650	.73791	3.2130	.59878
2.9970	.50946	2.6460	.41807	2.5020	.37077	2.3670	.36411
2.2500	.32986	2.1420	.31887	1.8720	.24378	1.7280	.23438
1.5480	.21807	1.5030	.21321	1.4490	.19550	1.1970	.18260
1.0847	.15573	.9990	.15419	.9450	.14720	.9000	.13820

SPAZ F G	LOG R	SAFEGUARDS BLDG	ELEV=896.50 DAMP=0.07 SSE			(N-S)	
39.5000	.63038	23.7050	.78373	20.4050	.88153	17.3470	.99253
16.4230	1.05340	14.6630	1.11017	11.6490	1.45836	10.5270	2.00864
10.0540	2.13905	8.2260	2.11787	5.6250	1.94588	5.1450	1.58713
4.2930	1.57142	4.0950	1.38180	3.7530	.98465	3.2130	.67127
2.6908	.53212	2.3670	.52685	2.1420	.46476	2.0430	.42837
1.8720	.35530	1.7280	.34205	1.6650	.33513	1.6551	.33614
1.5480	.33281	1.5030	.33140	1.4490	.30924	1.4123	.28236
1.3230	.27956	1.1970	.25935	1.1250	.22805	.9450	.20763
.9000	.19429						

SAFEGUARDS 873.50SSE

SPAX F G	LOG R SAFEGUARDS BLDG		ELEV=873.50 DAMP=0.07 SSE		(E-W)		
39.5000	.62366	23.7050	.71591	20.4050	.87452	18.4250	.92946
11.6490	1.27953	11.0000	1.44772	10.5270	1.51070	10.0760	1.57187
9.1630	2.19944	8.6570	2.28192	7.0830	2.25933	6.4260	2.22026
6.3720	2.21499	5.2470	2.03698	4.2930	2.01681	4.0950	1.88611
3.7530	1.34946	3.2130	.84233	2.4979	.78605	2.6460	.63276
2.3670	.60773	2.2500	.56789	1.8720	.38491	1.7280	.38102
1.6650	.36429	1.6396	.35887	1.5480	.35532	1.5030	.35339
1.4490	.33054	1.4069	.29934	1.3230	.29638	1.2870	.28899
1.1970	.26470	1.1250	.23068	1.0685	.21915	.9990	.21698
.9450	.21505	.9000	.20038				

SPAY F G	LOG R SAFEGUARDS BLDG		ELEV=873.50 DAMP=0.07 SSE		(VERT)		
39.5000	.83600	23.7050	1.55271	17.3470	2.23456	14.1930	2.21244
10.0760	2.21428	8.2440	2.19236	8.2260	2.18828	5.5000	2.13234
4.5000	2.11123	4.2930	2.04922	4.0950	1.83100	3.7530	1.20474
3.2130	.75350	2.8170	.53823	2.3670	.41072	1.8720	.26410
1.7280	.25167	1.5480	.23138	1.5030	.22562	1.4490	.20617
1.1970	.19069	1.0785	.15985	.9990	.15827	.9450	.15199
.9000	.13957						

SPAZ F G	LOG R SAFEGUARDS BLDG		ELEV=873.50 DAMP=0.07 SSE		(N-S)		
39.5000	.66715	22.8690	.78907	17.3470	1.14401	16.4230	1.19703
14.5530	1.24647	11.6490	1.67395	10.5270	1.93679	10.0760	2.04597
10.0540	2.07164	8.2260	2.05113	6.3720	2.00645	5.6250	1.98096
5.1926	1.66981	4.2930	1.65328	4.0950	1.45877	3.7530	1.02508
3.2130	.69849	2.6723	.53604	2.3670	.53073	2.1420	.47060
2.0430	.43301	1.8720	.36227	1.7280	.35038	1.6650	.34180
1.6463	.34042	1.5480	.33705	1.5030	.33417	1.4490	.31186
1.4159	.28834	1.3230	.28549	1.2870	.28022	1.1970	.26525
1.1250	.23334	.9450	.21158	.9000	.19788		

SAFEGUARDS 852.50SSE

SPAX F G	LOG R SAFEGUARDS BLDG	ELEV=852.50 DAMP=0.07 SSE			(E-W)	
39.5000	.50733	23.7050	.58189	20.4050	.74131	17.3470	.81111
16.4230	.81280	14.5530	.93658	11.6490	1.02229	10.0760	1.17349
9.1630	1.66349	8.6570	1.76925	7.0830	1.75173	6.3720	1.71532
5.2470	1.61177	4.2930	1.59581	4.0950	1.51420	3.7530	1.12300
3.2130	.71693	2.9970	.68289	2.6460	.56229	2.3670	.56054
2.2500	.52152	1.8795	.36717	1.7280	.36353	1.6650	.34721
1.6377	.34164	1.5480	.33826	1.5030	.33564	1.4490	.31350
1.4125	.28868	1.3230	.28582	1.2870	.27999	1.1970	.25850
1.1250	.22490	1.0648	.21411	.9990	.21199	.9450	.20887
.9000	.19536						

SPAY F G	LOG R SAFEGUARDS BLDG	ELEV=852.50 DAMP=0.07 SSE			(VERT)	
39.5000	.76310	23.7050	1.28472	18.4250	1.72746	17.3470	1.81438
10.0760	2.06172	8.2440	2.04131	8.2260	2.03762	5.5000	1.97742
4.5000	1.95784	4.2930	1.90110	4.0950	1.70310	3.7530	1.12906
3.2130	.71144	2.9970	.59163	2.6460	.46921	2.3670	.39651
1.8720	.25766	1.7280	.24684	1.5480	.22747	1.5030	.22050
1.4490	.20232	1.1970	.18793	1.0792	.15830	.9990	.15673
.9450	.15073	.9000	.13815				

SPAZ F G	LOG R SAFEGUARDS BLDG	ELEV=852.50 DAMP=0.07 SSE			(N-S)	
39.5000	.58953	22.8690	.67886	17.3470	.94993	14.5530	1.10290
11.6490	1.49710	11.0000	1.54418	10.0540	1.59937	9.5260	1.62187
8.7019	1.60581	7.7880	1.66132	6.8750	1.67969	5.6250	1.66306
5.2329	1.44520	4.2930	1.43089	4.0950	1.27920	3.7530	.91098
3.4650	.76224	2.9970	.56855	2.7159	.51026	2.3670	.50521
2.1420	.45352	1.8720	.35139	1.7280	.34275	1.6650	.33303
1.6411	.32997	1.5480	.32670	1.5030	.32433	1.4490	.30263
1.4203	.28349	1.3230	.28068	1.2970	.27642	1.1970	.26173
1.1250	.22965	.9450	.20848	.9000	.19462		

SAFEGUARDS 831.50SSE

SPAX F G	LOG R	SAFEGUARDS BLDG	ELEV=831.50	DAMP=0.07 SSE	(E-W)	
39.5000	.38316	23.7050	.44607	20.4050	.50690	18.4250	.51870
16.4230	.62985	14.5530	.71524	11.6490	.75236	9.9185	.74491
9.5260	.81847	9.1630	.98055	8.6570	1.06710	7.7880	1.08137
5.6092	1.07066	5.5000	1.11730	5.2470	1.15534	4.2930	1.14390
4.0950	1.10989	3.7530	.86886	3.2130	.58559	2.9970	.56747
2.7206	.51010	2.3670	.50505	2.0433	.40232	1.8885	.34631
1.7280	.34288	1.6650	.32695	1.6356	.32115	1.5480	.31797
1.5030	.31480	1.4490	.29454	1.4206	.27727	1.3230	.27452
1.2870	.27046	1.1970	.25207	1.1250	.21918	1.0670	.20979
.9990	.20771	.9450	.20280	.9000	.18891		

SPAY F G	LOG R	SAFEGUARDS BLDG	ELEV=831.50	DAMP=0.07 SSE	(VERT)	
39.5000	.65677	23.7050	.85521	22.0000	.98703	20.4050	1.11426
18.4250	1.28181	17.3470	1.34066	16.4230	1.35199	11.0000	1.73230
10.0760	1.82679	8.2440	1.80870	8.2260	1.80661	5.5000	1.72597
4.5000	1.70888	4.2930	1.66002	4.0950	1.49072	3.7530	1.00105
3.2130	.64634	2.9970	.54231	2.6460	.43852	2.3670	.37411
2.1420	.32045	1.8720	.24707	1.7280	.23927	1.5480	.22023
1.5030	.21432	1.4490	.19636	1.1970	.18357	1.0817	.15606
.9990	.15451	.9450	.14714	.9000	.13562		

SPAZ F G	LOG R	SAFEGUARDS BLDG	ELEV=831.50	DAMP=0.07 SSE	(N-S)	
39.5000	.44545	23.7050	.52264	20.4050	.60017	18.4250	.60185
17.3470	.65121	14.5530	.78330	11.6490	1.08661	9.5310	1.07585
9.0000	1.08456	7.9898	1.07382	7.8540	1.09618	7.7880	1.10370
6.8750	1.17058	5.6250	1.15899	5.3802	1.09340	4.2930	1.08257
4.0950	.98757	3.7530	.72720	2.9970	.49024	2.8147	.46981
2.3670	.46516	2.1420	.42458	1.8720	.33185	1.7280	.32842
1.6650	.31738	1.6398	.31357	1.5480	.31047	1.5030	.30709
1.4490	.28659	1.4268	.27401	1.3230	.27130	1.2870	.26918
1.1970	.25481	1.1250	.22290	.9990	.21060	.9450	.20277
.9000	.18867						

SAFEGUARDS 810.50SSE

SPAX F G	LOG R	SAFEGUARDS BLDG	ELEV=810.50	DAMP=0.07 SSE	(E-W)	
39.5000	.32247	22.8690	.40434	22.0000	.41912	20.4050	.44667
18.4250	.48222	14.5530	.65833	11.6490	.68090	9.5310	.67416
8.7351	.63510	7.8540	.62881	7.7880	.63303	6.8750	.68915
5.9763	.68233	5.5000	.83002	5.2470	.86743	4.2930	.85884
4.0950	.82846	3.7530	.68117	3.4650	.59951	3.2130	.51591
2.7954	.46744	2.3670	.46281	2.1420	.41254	1.8833	.33151
1.7280	.32823	1.6359	.30722	1.5480	.30418	1.5030	.29971
1.4490	.28017	1.4348	.27371	1.3230	.27100	1.2870	.26923
1.1970	.25476	1.1250	.22187	.9990	.21525	.9450	.20573
.9000	.18900						

SPAY F G	LOG R	SAFEGUARDS BLDG	ELEV=810.50	DAMP=0.07 SSE	(VERT)	
39.5000	.63590	22.8690	.80330	16.4230	1.30511	14.6630	1.44439
14.5530	1.45081	10.5270	1.71302	10.0760	1.76446	8.2440	1.74699
8.2260	1.74620	5.5000	1.66849	4.5000	1.65197	4.2930	1.60214
4.0950	1.43971	3.7530	.97207	3.4650	.78407	2.9970	.53128
2.6460	.43299	2.3670	.36935	2.1420	.31716	1.9530	.26692
1.8720	.24518	1.7280	.23836	1.5480	.21986	1.5030	.21223
1.4490	.19491	1.1970	.18291	1.0794	.15425	.9990	.15272
.9450	.14669	.9000	.13558				

SPAZ F G	LOG R	SAFEGUARDS BLDG	ELEV=810.50	DAMP=0.07 SSE	(N-S)	
39.5000	.33802	23.7050	.41066	22.0000	.45083	20.4050	.48448
18.4250	.49807	16.4230	.55440	11.6490	.79572	9.5310	.78784
6.8750	.78754	5.5714	.77974	5.5000	.79028	5.2470	.80900
4.2930	.80099	4.0950	.74138	3.7530	.58117	3.4650	.53156
3.2130	.47622	3.0348	.43752	2.3670	.43319	2.2500	.41800
2.1420	.40279	1.8720	.31642	1.7280	.31596	1.6650	.30367
1.6352	.29948	1.5480	.29651	1.5030	.29307	1.4490	.27334
1.4338	.26622	1.3230	.26358	1.2870	.26197	1.1970	.24864
1.1250	.21678	.9990	.20727	.9450	.19875	.9000	.18402

SAFEGUARDS 790.50SSE

SPAX F G	LOG R	SAFEGUARDS BLDG		ELEV=790.50 DAMP=0.07 SSE		(E-W)	
39.5000	.26106	22.0000	.36841	20.4050	.39183	18.4250	.39822
14.5530	.48551	11.6490	.50403	6.9263	.49904	6.8750	.50892
5.9418	.50388	5.5000	.58964	5.2470	.62972	4.2930	.62349
4.0950	.60229	3.4650	.49934	3.2130	.44602	3.0247	.43227
2.3670	.42799	2.2500	.41505	2.1420	.39989	1.8830	.33001
1.7280	.32674	1.6650	.31211	1.6374	.30783	1.5480	.30478
1.5030	.30126	1.4490	.28231	1.4421	.28052	1.3230	.27774
1.2870	.27685	1.1970	.26191	1.1250	.22761	.9990	.22121
.9450	.21141	.9000	.19453				

SPAY F G	LOG R	SAFEGUARDS BLDG		ELEV=790.50 DAMP=0.07 SSE		(VERT)	
39.5000	.47878	23.7050	.55534	18.4250	.74983	10.0760	1.47080
8.2440	1.45624	8.2260	1.45520	5.6250	1.25465	4.5000	1.11959
4.2930	1.07532	4.0950	.93439	3.7530	.71040	2.9970	.44501
2.6460	.38030	2.5020	.34318	2.3670	.33595	2.1420	.29750
1.9530	.25266	1.8720	.23064	1.7280	.22646	1.5480	.21035
1.5030	.20509	1.4490	.18708	1.1970	.17773	1.0819	.15324
.9990	.15172	.9450	.14598	.9000	.13655		

SPAZ F G	LOG R	SAFEGUARDS BLDG		ELEV=790.50 DAMP=0.07 SSE		(N-S)	
39.5000	.23246	23.7050	.29539	20.4050	.34902	11.6490	.50190
11.0000	.51164	9.0000	.50657	6.8750	.47915	5.7451	.47441
5.2470	.50632	4.2930	.50131	4.0950	.47802	3.7530	.43170
3.4650	.42714	3.2130	.40389	3.1636	.39873	3.0580	.39478
2.8930	.40840	2.7500	.41280	2.2500	.40871	2.1420	.39382
1.8830	.32457	1.7280	.32136	1.6650	.30686	1.6378	.30296
1.5480	.29996	1.5030	.29632	1.4490	.27747	1.4428	.27620
1.3230	.27347	1.2870	.27193	1.1970	.25728	1.1250	.22402
.9990	.21757	.9450	.20829	.9000	.19137		

SAFEGUARDS 785.50SSE

SPAX F G	LOG R SAFEGUARDS BLDG		ELEV=785.50 DAMP=0.07 SSE			(E-W)	
39.5000	.24284	22.0000	.35283	20.4050	.37657	18.4250	.38533
14.5530	.46647	11.6490	.48056	9.5310	.47580	8.6130	.46144
7.7940	.44791	7.2614	.44348	6.8750	.47854	5.9364	.47380
5.5000	.54133	5.2470	.57941	4.2930	.57367	4.0950	.55509
3.4650	.47644	3.0627	.41480	3.0580	.41069	2.8930	.42451
2.3670	.42031	2.2500	.41789	2.1420	.40249	1.8827	.33200
1.7280	.32871	1.6650	.31394	1.6374	.30979	1.5480	.30672
1.5030	.30313	1.4490	.28407	1.4421	.28228	1.3230	.27949
1.2870	.27840	1.1970	.26337	1.1250	.22909	.9990	.22248
.9450	.21276	.9000	.19574				

SPAY F G	LOG R SAFEGUARDS BLDG		ELEV=785.50 DAMP=0.07 SSE			(VERT)	
39.5000	.45835	23.7050	.53131	18.4250	.70490	10.0760	1.42432
8.2440	1.41022	8.2260	1.40898	5.6250	1.20769	4.5000	1.05102
4.2930	1.00770	4.0950	.92750	3.7530	.67801	3.4650	.59421
2.9970	.43444	2.6460	.37356	2.5020	.33676	2.3670	.33156
2.1420	.29468	1.9530	.25068	1.8720	.22872	1.7280	.22477
1.5480	.20908	1.5030	.20402	1.4490	.18602	1.1970	.17703
1.0819	.15258	.9990	.15107	.9450	.14521	.9000	.13580

SPAZ F G	LOG R SAFEGUARDS BLDG		ELEV=785.50 DAMP=0.07 SSE			(N-S)	
39.5000	.22278	23.7050	.28389	20.4050	.33571	11.6490	.48463
11.0000	.50114	9.0000	.49618	7.7639	.45272	5.7240	.44824
5.2470	.47341	4.2930	.46872	4.0950	.45000	3.7530	.41541
3.4650	.41511	3.2130	.39645	3.1975	.39756	3.0580	.39362
2.8930	.40727	2.7500	.41170	2.2500	.40762	2.1420	.39263
1.8828	.32361	1.7280	.32041	1.6650	.30601	1.6378	.30211
1.5480	.29912	1.5030	.29548	1.4490	.27674	1.4429	.27550
1.3230	.27277	1.2870	.27124	1.1970	.25662	1.1250	.22345
.9990	.21692	.9450	.20765	.9000	.19082		

SAFEGUARDS 773.50SSE

SPAX F G	LOG R SAFEGUARDS BLDG	ELEV=773.50 DAMP=0.07 SSE		(E-W)	
39.5000	.22301	23.7050	.29517	20.4050	.34579	18.4250	.36384
14.5530	.44038	11.6490	.44246	10.5270	.44725	8.6130	.44282
7.7940	.42680	7.4970	.42022	7.4564	.42279	5.9953	.41860
5.2470	.47865	4.2930	.47391	4.0950	.45944	3.4650	.42830
3.2130	.40522	3.1267	.40121	3.0580	.41134	2.8930	.42581
2.7500	.43035	2.2500	.42609	2.1420	.41025	1.8817	.33799
1.7280	.33464	1.6650	.31948	1.6371	.31552	1.5480	.31240
1.5030	.30870	1.4490	.28933	1.4423	.28763	1.3230	.28478
1.2870	.28316	1.1970	.26792	1.1250	.23351	.9990	.22641
.9450	.21680	.9000	.17936				

SPAY F G	LOG R SAFEGUARDS BLDG	ELEV=773.50 DAMP=0.07 SSE		(VERT)	
39.5000	.41811	23.7050	.48596	20.4050	.56481	18.4250	.61507
14.5530	.84845	10.0760	1.32694	8.2440	1.31380	8.2260	1.31211
5.6250	1.10829	4.5000	.90733	4.2930	.86554	4.0950	.80936
3.7530	.61158	3.4650	.55273	2.9970	.41312	2.6460	.35992
2.5020	.32368	2.3670	.32269	2.1420	.28895	1.9530	.24660
1.8720	.22479	1.7280	.22123	1.5480	.20652	1.5030	.20177
1.4490	.18384	1.1970	.17536	1.0813	.15038	.9990	.14889
.9450	.14279	.9000	.13345				

SPAZ F G	LOG R SAFEGUARDS BLDG	ELEV=773.50 DAMP=0.07 SSE		(N-S)	
39.5000	.20928	23.7050	.25992	16.4230	.37888	11.0000	.48721
9.0000	.48239	8.6130	.47258	7.7940	.44411	7.4970	.43266
7.0830	.40863	7.0227	.40895	5.6250	.40490	5.6128	.40874
4.2930	.40469	4.0950	.39515	3.4650	.39027	3.2130	.38536
3.1037	.38154	3.0580	.38789	2.8930	.40154	2.7500	.40596
2.2500	.40194	2.1420	.38687	1.8823	.31888	1.7280	.31572
1.6650	.30169	1.6375	.29779	1.5480	.29484	1.5030	.29127
1.4490	.27289	1.4429	.27172	1.3230	.26903	1.2870	.26752
1.1970	.25310	1.1250	.22039	.9990	.21377	.9450	.20459
.9000	.18807						

INTERNAL ST905.75SSE

SPAX F G	LOG INT.	STRUCT. OF RB	ELEV=905.75	DAMP=0.07 SSE	(N-S)	
39.5000	.55321	27.5000	.58474	15.8273	.72380	13.7500	.84674
10.6383	1.35983	8.0763	2.13310	7.9538	2.18853	6.5076	2.16686
6.1771	2.13524	5.8709	2.07045	5.6890	2.01457	5.6250	1.99123
5.6215	1.98764	5.6037	1.98890	5.0000	1.96921	4.9806	1.96219
4.7493	1.74349	4.0909	1.05030	3.7500	.83952	3.4616	.63159
3.3751	.62534	3.2353	.63856	3.0556	.79317	2.8948	.87452
2.7521	.92383	2.7500	.92453	2.6849	.94254	2.1967	.93321
2.1429	.92610	2.0454	.87229	1.9565	.77442	1.8750	.67895
1.6071	.49540	1.5000	.44171	1.4062	.36065	1.3755	.33603
1.3235	.33270	1.2857	.32731	1.2500	.31457	1.0945	.25263
1.0228	.25013	.9783	.24036	.9375	.22416	.9000	.20286
SPAY F G	LOG INT.	STRUCT. OF RB	ELEV=905.75	DAMP=0.07 SSE	(VERT)	
39.5000	.93527	27.5000	1.08670	15.0273	1.72948	8.0763	1.71236
6.8750	1.96335	5.6215	1.94391	5.4711	1.94207	5.0000	1.80981
4.9806	1.79917	4.7493	1.66928	4.5000	1.48450	3.7500	.79326
3.4616	.64011	3.2143	.62086	3.0454	.60018	2.3684	.59424
2.3220	.58726	2.3190	.58664	2.2517	.57235	2.2500	.57198
2.1967	.55941	2.1429	.54273	2.0454	.48426	1.9565	.41709
1.8750	.39022	1.7308	.32427	1.5000	.24946	1.4062	.20951
1.1842	.18204	1.0998	.16043	1.0228	.15884	.9783	.15483
.9375	.14687	.9000	.13498				
SPAZ F G	LOG INT.	STRUCT. OF RB	ELEV=905.75	DAMP=0.07 SSE	(E-W)	
39.5000	.71859	27.5000	.73717	13.7500	1.04978	9.1666	1.80730
8.0763	2.22351	7.1755	2.95914	7.1521	2.97200	6.9532	3.01701
5.6890	2.98714	5.6250	2.95666	5.6215	2.95319	5.1646	2.35603
4.7493	2.33270	4.5000	1.88851	4.0909	1.47020	3.7500	1.03451
3.4616	.77471	3.2766	.68566	3.2353	.67887	3.0556	.83935
2.8948	.92985	2.7500	.96569	2.6849	.98765	2.1967	.97787
2.1429	.97447	2.0454	.92694	1.9565	.82772	1.9132	.77350
1.7308	.62019	1.6667	.54768	1.5000	.45963	1.4062	.37242
1.3736	.34350	1.3235	.34010	1.2857	.33665	1.2500	.32517
1.1250	.26901	1.0993	.25687	1.0228	.25433	.9783	.24844
.9375	.23532	.9000	.21335				

INTERNAL ST885.50SSE

SPAX F G	LOG INT.	STRUCT. OF RB	ELEV=885.50	DAMP=0.07 SSE	(N-S)	
39.5000	.47146	27.5000	.49859	15.8273	.62411	13.7500	.71392
11.8535	.94320	9.1666	1.43063	8.0763	1.76510	7.9538	1.81378
6.5076	1.79582	6.1771	1.78492	5.8709	1.73552	5.7015	1.71307
5.0000	1.69611	4.9806	1.69151	4.7493	1.51424	4.0909	.94038
3.7500	.76626	3.4616	.58333	3.3049	.57755	3.2353	.58265
3.0556	.71494	2.8948	.79029	2.7521	.83394	2.7500	.83451
2.6849	.85024	2.1967	.84182	2.1429	.83849	2.0454	.79454
1.9565	.70847	1.9132	.66086	1.7308	.53966	1.6667	.48990
1.5000	.41329	1.3734	.32084	1.3235	.31766	1.2857	.31343
1.2500	.30295	1.0959	.24579	1.0228	.24336	.9783	.23435
.9375	.21913	.9000	.19867				

SPAY F G	LOG INT.	STRUCT. OF RB	ELEV=885.50	DAMP=0.07 SSE	(VERT)	
39.5000	.77443	27.5000	.89817	15.0273	1.49283	8.2090	1.47805
7.1521	1.67477	6.9532	1.77605	6.8750	1.81545	6.8707	1.81560
6.6869	1.83937	5.4711	1.82116	5.0000	1.68673	4.9806	1.67705
4.7493	1.55780	4.5000	1.39100	4.0909	1.06838	3.7500	.76131
3.4616	.62912	3.2143	.61111	3.0242	.58707	2.3684	.58126
2.3220	.57438	2.3190	.57378	2.2517	.55924	2.2500	.55886
2.1967	.54616	2.1429	.52948	2.0454	.47203	1.9565	.40700
1.8750	.38458	1.7308	.31998	1.5000	.24606	1.4062	.20669
1.1842	.18093	1.1000	.15954	1.0228	.15796	.9783	.15399
.9375	.14605	.9000	.13426				

SPAZ F G	LOG INT.	STRUCT. OF RB	ELEV=885.50	DAMP=0.07 SSE	(E-W)	
39.5000	.60800	27.5000	.62600	13.7500	.89755	11.8535	1.07677
9.1666	1.47832	8.0763	1.81915	7.1755	2.42188	7.1521	2.43233
6.9532	2.47642	5.6890	2.45190	5.6250	2.43141	5.6215	2.42883
5.1926	2.00590	4.7493	1.98604	4.5000	1.63223	4.0909	1.28847
3.7500	.92322	3.4616	.69830	3.2640	.62027	3.2353	.61413
3.0556	.75065	2.8948	.83372	2.7521	.86608	2.7500	.86650
2.6849	.88505	2.1967	.87629	2.1429	.87604	2.0454	.83734
1.9565	.75076	1.9132	.70289	1.7308	.57240	1.6667	.51010
1.5000	.42747	1.3717	.32687	1.3235	.32363	1.2857	.32103
1.2500	.31148	1.1842	.28563	1.1250	.25941	1.1001	.24894
1.0228	.24648	.9783	.24088	.9375	.22837	.9000	.20756

INTERNAL ST860.00SSE

SPAX F G	LOG INT.	STRUCT. OF RB	ELEV=860.00 DAMP=0.07 SSE		(N-S)	
39.5000	.36954	27.5000	.39096	15.8273	.52064	13.7500	.54806
11.8535	.70587	9.1666	1.04815	8.0763	1.30260	7.9538	1.32952
7.5497	1.35871	6.1441	1.34526	6.1112	1.36655	5.0000	1.35302
4.9806	1.35150	4.7493	1.22654	4.0909	.80281	3.7500	.67461
3.4616	.51788	3.4250	.51742	3.2353	.51230	3.0556	.61646
2.8948	.68426	2.7521	.72077	2.7500	.72118	2.6849	.72675
2.6191	.73546	2.1429	.72818	2.0454	.69666	1.9565	.62544
1.8750	.55434	1.5000	.37751	1.3693	.30172	1.3235	.29873
1.2857	.29598	1.2500	.28833	1.1842	.26971	1.0960	.23720
1.0228	.23485	.9783	.22678	.9375	.21282	.9000	.19341
SPAY F G	LOG INT.	STRUCT. OF RB	ELEV=860.00 DAMP=0.07 SSE		(VERT)	
39.5000	.56351	36.3036	.57835	27.5000	.66104	15.0273	1.19683
8.2090	1.18498	6.8750	1.66143	6.6869	1.69261	5.4711	1.67585
5.0000	1.53747	4.9806	1.52896	4.7493	1.42264	4.5000	1.27766
4.0909	1.00283	3.7500	.72254	3.4616	.61530	3.2143	.59882
2.9977	.57063	2.3684	.56498	2.3220	.55822	2.3190	.55766
2.2517	.54281	2.1567	.52956	2.1429	.51288	2.0454	.45673
1.9565	.39440	1.9129	.38665	1.8750	.37748	1.7308	.31459
1.5517	.25856	1.5000	.24185	1.4062	.20321	1.2500	.18713
1.1842	.17956	1.1002	.15842	1.0228	.15685	.9783	.15295
.9375	.14503	.9000	.13339				
SPAZ F G	LOG INT.	STRUCT. OF RB	ELEV=860.00 DAMP=0.07 SSE		(E-W)	
39.5000	.47234	27.5000	.48807	15.0273	.66958	11.2820	.84569
8.0763	1.30997	7.1755	1.74533	7.1521	1.75274	6.9532	1.79568
5.6890	1.77790	5.6250	1.77000	5.6215	1.76853	5.2696	1.56502
4.7493	1.54952	4.5000	1.30956	4.0909	1.05966	3.7500	.78311
3.4616	.60813	3.1167	.60211	3.0556	.63895	2.8948	.71266
2.8344	.72462	2.7521	.74132	2.7500	.74160	2.6849	.74836
2.6191	.75962	2.1429	.75210	2.0454	.72450	1.9565	.65383
1.9132	.61396	1.7308	.51223	1.6667	.46278	1.5000	.38696
1.3685	.30630	1.3235	.30327	1.2857	.30138	1.2500	.29425
1.1842	.27479	1.1007	.23897	1.0228	.23660	.9783	.23136
.9375	.21962	.9000	.20027				

INTERNAL ST832.50SSE

SPAX F G	LOG INT.	STRUCT. OF RB	ELEV=832.50 DAMP=0.07 SSE		(N-S)	
39.5000	.27641	27.5000	.28394	15.8273	.42561	14.9194	.42140
13.7500	.49004	11.6897	.53637	11.2820	.55131	10.5698	.54585
9.1666	.64022	7.9538	.82969	7.5497	.88438	7.1283	.87562
6.8750	.92293	6.4174	.91379	6.1112	.98509	6.0874	.99678
4.9806	.98691	4.7493	.91861	4.5000	.83540	4.0909	.65615
3.7500	.57690	3.4616	.45438	3.3116	.45051	3.2116	.44605
3.0556	.51033	2.8948	.56998	2.8380	.58341	2.8344	.58407
2.7521	.59877	2.7500	.59900	2.6191	.61536	2.1429	.60927
2.0454	.59114	1.9565	.53594	1.9132	.50391	1.7308	.43484
1.6667	.40400	1.4516	.31906	1.4062	.29233	1.2857	.27846
1.2500	.27361	1.1842	.26055	1.0958	.22794	1.0228	.22568
.9783	.21863	.9375	.20602	.9000	.18791		

SPAY F G	LOG INT.	STRUCT. OF RB	ELEV=832.50 DAMP=0.07 SSE		(VERT)	
39.5000	.39410	27.5000	.43027	15.0273	.88257	8.4811	.87383
8.2090	.90382	6.8750	1.50782	6.6869	1.54551	5.4711	1.53021
5.0000	1.38590	4.9806	1.37856	4.7493	1.28541	4.5000	1.16246
4.0909	.93626	3.7500	.68283	3.4616	.60042	3.2143	.58558
2.9691	.55296	2.3684	.54749	2.3220	.54088	2.3190	.54035
2.2517	.52518	2.1967	.51176	2.1429	.49511	2.0454	.44039
1.9565	.38097	1.9132	.37833	1.9129	.37827	1.8750	.36985
1.6667	.28016	1.5517	.25416	1.5000	.23737	1.4062	.19953
1.2500	.18534	1.1842	.17810	1.1004	.15724	1.0228	.15568
.9783	.15184	.9375	.14395	.9000	.13248		

SPAZ F G	LOG INT.	STRUCT. OF RB	ELEV=832.50 DAMP=0.07 SSE		(E-W)	
39.5000	.32520	27.5000	.33939	15.0273	.51258	11.8535	.68047
10.2709	.67373	9.1666	.78659	8.0094	.77880	7.1755	1.01573
7.1521	1.01986	6.9532	1.05105	6.8750	1.06728	5.8900	1.05671
5.8047	1.08961	4.7493	1.07882	4.0909	.81300	3.4616	.50342
3.1034	.49844	3.0556	.51849	2.8948	.58211	2.8344	.59519
2.7521	.60678	2.6191	.62462	2.1429	.61844	2.0454	.60282
1.9565	.54931	1.9132	.51807	1.7308	.44735	1.6667	.41175
1.4516	.32218	1.4062	.29419	1.2857	.28091	1.2500	.27576
1.1842	.26311	1.0992	.22820	1.0228	.22594	.9783	.22110
.9375	.21018	.9000	.19240				

INTERNAL ST808.00SSE

SPAX F G	LOG INT.	STRUCT. OF RB	ELEV=808.00 DAMP=0.07 SSE			(N-S)	
39.5000	.21000	27.5000	.21402	15.8273	.34844	15.0168	.34499
13.7500	.45128	11.8535	.45764	11.6897	.46258	9.5643	.45800
9.2308	.46211	7.7465	.45753	7.5497	.49330	6.8750	.59685
6.2393	.62513	6.1112	.66298	6.0874	.67445	4.9806	.66777
4.7493	.65005	4.5000	.62906	4.0909	.52867	3.7500	.49140
3.4888	.41203	3.0978	.40795	2.8948	.46825	2.8380	.48235
2.8344	.48270	2.6191	.50842	2.1429	.50339	2.0454	.49718
1.9565	.45624	1.9132	.43141	1.7308	.38641	1.5517	.32276
1.4516	.29430	1.4062	.26952	1.3235	.26895	1.2857	.26755
1.2500	.26449	1.1842	.25240	1.0957	.21971	1.0228	.21753
.9783	.21138	.9375	.19997	.9000	.18355		

SPAY F G	LOG INT.	STRUCT. OF RB	ELEV=808.00 DAMP=0.07 SSE			(VERT)	
39.5000	.32655	27.5000	.33286	15.8273	.58680	15.0273	.64044
12.2008	.63410	11.2820	.66242	10.6383	.68252	8.9624	.67576
8.4811	.71763	8.2090	.70984	6.8750	1.38532	6.6869	1.42706
5.4711	1.41293	5.3731	1.39398	4.9806	1.25542	4.7493	1.17307
4.5000	1.06785	4.0909	.88130	3.7500	.64962	3.4616	.58718
3.2143	.57379	2.8846	.53730	2.3684	.53198	2.3220	.52549
2.3190	.52499	2.2517	.50957	2.1967	.49601	2.1429	.47942
2.0454	.42597	1.9592	.37461	1.9132	.37090	1.9129	.37083
1.8750	.36307	1.7308	.30370	1.6667	.27497	1.5517	.25029
1.5000	.23346	1.4062	.19632	1.2500	.18378	1.1842	.17681
1.1005	.15619	1.0228	.15464	.9783	.15086	.9375	.14301
.9000	.13169						

SPAZ F G	LOG INT.	STRUCT. OF RB	ELEV=808.00 DAMP=0.07 SSE			(E-W)	
39.5000	.20457	27.5000	.21186	15.8273	.42224	11.8535	.60080
9.6983	.59485	5.8047	.66623	4.7493	.65963	4.5000	.65208
4.0909	.59343	3.7500	.49769	3.5025	.42381	3.0603	.41961
2.8948	.46580	2.8344	.47989	2.6191	.50435	2.1429	.49936
2.0454	.49441	1.9565	.45619	1.9132	.43263	1.7308	.38954
1.6667	.36628	1.6071	.33276	1.5517	.32314	1.4516	.29264
1.4082	.27179	1.3235	.26910	1.2857	.26700	1.2500	.26399
1.1842	.25270	1.0977	.21862	1.0228	.21646	.9783	.21196
.9375	.20177	.9000	.18540				

INTERNAL ST783.58SSE

SPAX F G	LOG INT.	STRUCT. OF RB	ELEV=783.58 DAMP=0.07 SSE		(N-S)	
39.5000	.15100	27.5000	.15587	15.8273	.29914	14.9496	.29618
13.7500	.41649	11.2500	.41237	6.1112	.44097	5.5651	.43660
5.5000	.44875	4.5000	.44431	4.0909	.41427	3.7500	.41356
3.6147	.39399	3.2143	.39009	3.1099	.37101	3.1083	.37423
3.0480	.37052	2.3948	.38125	2.6191	.39737	2.5000	.40708
2.0454	.40305	1.9565	.37641	1.9132	.35875	1.7308	.33785
1.6667	.32453	1.6071	.29214	1.5000	.28677	1.4516	.26945
1.4258	.25910	1.2857	.25653	1.2500	.25525	1.1842	.24414
1.1250	.21415	1.1081	.21172	1.0228	.20962	.9783	.20434
.9375	.19414	.9000	.17937				

SPAY F G	LOG INT.	STRUCT. OF RB	ELEV=783.58 DAMP=0.07 SSE		(VERT)	
39.5000	.27815	27.5000	.28238	15.0273	.57783	12.2951	.57211
11.7991	.55943	11.6897	.55389	10.6383	.62506	8.4811	.61887
6.8750	1.27672	6.8707	1.27747	6.6869	1.32076	5.4711	1.30768
5.3731	1.28538	4.6909	.81792	3.7500	.60960	3.4616	.53982
3.2143	.51879	2.5316	.39567	2.3684	.39175	2.3220	.38634
2.3190	.38598	2.1429	.36256	2.0454	.32618	1.9565	.29013
1.8750	.27924	1.8009	.26637	1.7308	.24985	1.6667	.22865
1.6071	.22599	1.5517	.22254	1.5000	.21126	1.4516	.19051
1.3637	.18235	1.2500	.17708	1.1842	.17168	1.1045	.15360
1.0228	.15208	.9783	.14870	.9375	.14114	.9000	.13026

SPAZ F G	LOG INT.	STRUCT. OF RB	ELEV=783.58 DAMP=0.07 SSE		(E-W)	
39.5000	.14547	27.5000	.15670	15.8273	.36578	11.8535	.54347
9.6983	.53809	9.5643	.52393	9.2308	.48671	8.7041	.42229
7.5000	.36451	5.5000	.41617	5.0000	.42538	4.0909	.42117
3.7500	.39466	3.7363	.39682	3.2143	.39289	3.1099	.37781
3.0958	.37560	3.0556	.37188	2.9948	.37929	2.6191	.38956
2.5000	.39806	2.0454	.39412	1.9565	.37004	1.9132	.35340
1.7308	.33553	1.6667	.32418	1.6071	.29100	1.5000	.28876
1.4516	.26946	1.4257	.25774	1.2857	.25519	1.2500	.25422
1.1842	.24409	1.0957	.21043	1.0228	.20835	.9783	.20418
.9375	.19468	.9000	.17963				

CONTAINMENT000.50SSE

SPAX F G	LOG CONTAINMENT BLDG.		ELEV=000.50 DAMP=0.07 SSE			(N-S)	
39.5000	.72700	27.5000	.75002	15.8273	.97233	13.7500	1.09665
11.2500	1.08579	9.6983	1.06884	9.3258	1.05826	8.4811	1.09286
8.0763	1.19156	7.9538	1.19648	7.8572	1.20996	7.3653	1.19798
6.8750	1.40418	6.2812	1.39028	6.0874	1.46385	4.5963	1.44936
4.5834	1.44936	4.2308	1.71812	3.9285	1.90162	3.8009	2.13923
3.6666	2.30684	3.6197	2.33417	3.0738	2.31106	3.0556	2.35297
2.8948	2.50393	2.3684	2.47914	2.3220	2.46378	2.3190	2.46117
2.2517	2.40095	2.2500	2.39836	2.2357	2.39935	1.9565	2.37559
1.4516	.89151	1.3674	.68776	1.3235	.68095	1.2857	.66277
1.2500	.63240	1.1842	.55180	1.0714	.39252	.9783	.33428
.9375	.30423	.9000	.27138				

SPAY F G	LOG CONTAINMENT BLDG.		ELEV=000.50 DAMP=0.07 SSE			(VERT)	
39.5000	.76845	27.5000	.81887	15.0273	1.47058	13.7500	1.52284
11.6897	1.95267	8.2090	2.53449	6.4286	2.50940	5.0000	2.38292
4.9806	2.36350	4.0909	1.32109	3.4616	.76644	3.2143	.75272
3.0000	.70960	2.9900	.71496	2.8948	.70788	2.5033	.70788
2.5000	.71689	2.0454	.70979	1.9129	.68919	1.8750	.68144
1.6667	.43842	1.5517	.35782	1.5000	.31890	1.4516	.27889
1.3637	.23603	1.2857	.22145	1.2500	.21415	1.1842	.19749
1.1250	.18132	1.0866	.17169	1.0228	.16999	.9783	.16173
.9375	.15054	.9000	.13877				

SPAZ F G	LOG CONTAINMENT BLDG.		ELEV=000.50 DAMP=0.07 SSE			(E-W)	
39.5000	.72900	27.5000	.74288	15.8273	1.01099	11.8535	1.25467
6.6724	1.24225	6.1112	1.32053	5.8047	1.35132	4.6466	1.33794
4.5834	1.36372	4.2308	1.72405	3.9285	1.91689	3.8009	2.15488
3.6666	2.32035	3.6184	2.34458	3.0711	2.32137	3.0556	2.35765
2.8948	2.51917	2.3684	2.49423	2.3190	2.47851	2.2517	2.41338
2.2500	2.41070	2.2289	2.40018	1.9565	2.37642	1.6667	1.56825
1.4516	.89033	1.3674	.69051	1.3235	.68367	1.2857	.66492
1.2500	.63355	1.1842	.55172	1.1250	.47044	1.0714	.39203
.9783	.33671	.9375	.30464	.9000	.26870		

CONTAINMENT950.58SSE

SPAX F G	LOG CONTAINMENT BLDG.		ELEV=950.58 DAMP=0.07 SSE			(N-S)	
39.5000	.58200	27.5000	.61079	15.8273	.80445	13.7500	.91501
8.5550	.90595	8.4811	.91134	8.0763	.99627	7.9538	1.00268
7.8572	1.01319	7.4637	1.00316	6.8750	1.21085	6.3269	1.19886
6.0874	1.27459	4.4756	1.26197	4.2308	1.37378	3.9285	1.50835
3.8009	1.68370	3.6666	1.81060	3.6197	1.83583	3.0798	1.81765
3.0556	1.86094	2.8948	1.98823	2.3684	1.96854	2.3220	1.96070
2.3190	1.95886	2.2517	1.91627	2.2500	1.91437	2.1998	1.87357
1.9565	1.85502	1.5800	.98173	1.4516	.73604	1.3680	.57969
1.3235	.57395	1.2857	.56042	1.2500	.53724	1.1842	.47465
1.0714	.34545	1.0228	.32417	.9783	.30309	.9375	.27777
.9000	.24906						

SPAY F G	LOG CONTAINMENT BLDG.		ELEV=950.58 DAMP=0.07 SSE			(VERT)	
39.5000	.63237	27.5000	.67448	15.0273	1.26926	13.6547	1.25669
11.6897	1.60339	8.2090	2.03425	6.3428	2.01411	6.2393	2.06743
6.1112	2.11429	5.0000	2.09336	4.9806	2.07732	4.7493	1.86809
4.0909	1.20717	3.4616	.70776	3.2143	.69081	2.9598	.65852
2.3684	.65200	2.3220	.63981	2.3190	.63895	2.2567	.62420
2.0454	.61802	1.9129	.59720	1.8750	.58955	1.6667	.38972
1.5517	.32506	1.4062	.23309	1.2500	.20458	1.1842	.19079
1.1250	.17477	1.0927	.16717	1.0228	.16551	.9783	.15851
.9375	.14823	.9000	.13661				

SPAZ F G	LOG CONTAINMENT BLDG.		ELEV=950.58 DAMP=0.07 SSE			(E-W)	
39.5000	.59400	27.5000	.60534	15.8273	.83765	11.8535	1.04319
6.9960	1.03286	6.1112	1.14320	5.8047	1.19219	4.4876	1.18039
4.2308	1.38003	3.9285	1.51748	3.8009	1.69277	3.6666	1.82018
3.6184	1.84256	3.0773	1.82432	3.0556	1.86368	2.8948	1.99947
2.3684	1.97967	2.3190	1.97154	2.2517	1.92509	2.2500	1.92309
2.1967	1.85837	2.1948	1.87445	1.9565	1.85589	1.6667	1.25355
1.5000	.85980	1.4516	.73577	1.3681	.58189	1.3235	.57613
1.2857	.56231	1.2500	.53831	1.1842	.47472	1.0714	.34442
1.0228	.32630	.9783	.30511	.9375	.27862	.9000	.24763

CONTAINMENT905.75SSE

SPAX F G	LOG CONTAINMENT BLDG.		ELEV=905.75 DAMP=0.07 SSE			(N-S)	
39.5000	.45200	27.5000	.48576	15.8273	.65371	13.7500	.75189
11.2500	.74445	9.5643	.73770	9.2308	.74295	8.6907	.73559
8.4811	.74834	8.0763	.82091	7.9538	.82865	7.5497	.83953
6.8750	1.03730	6.3820	1.02703	6.0874	1.10470	4.2308	1.09376
3.9285	1.15520	3.8009	1.27464	3.6666	1.36497	3.6197	1.38831
3.0893	1.37456	3.0556	1.41909	2.8948	1.52510	2.3684	1.51000
2.3220	1.50891	2.3190	1.50776	2.2517	1.48101	2.2500	1.47973
2.1967	1.43686	1.9565	1.38753	1.8750	1.36025	1.6667	.96722
1.5000	.68623	1.4516	.59645	1.3690	.48265	1.3235	.47787
1.2857	.46852	1.2500	.45179	1.1842	.40539	1.0714	.30320
1.0228	.29161	.9783	.27510	.9375	.25401	.9000	.22901
SPAY F G	LOG CONTAINMENT BLDG.		ELEV=905.75 DAMP=0.07 SSE			(VERT)	
39.5000	.51024	27.5000	.54489	15.0273	1.07624	13.4449	1.06558
11.6897	1.29021	11.2820	1.31325	10.6383	1.34843	8.4811	1.40646
8.2090	1.54122	6.2393	1.85195	5.0000	1.83361	4.9806	1.82059
4.7493	1.65122	3.7500	.84365	3.4616	.65642	3.2143	.63752
2.9476	.60881	2.3684	.60278	2.3220	.59249	2.3190	.59176
2.1967	.55518	2.0454	.53794	1.9129	.51647	1.8750	.50891
1.6667	.34765	1.5517	.29726	1.5000	.27043	1.4062	.21744
1.2500	.19673	1.1842	.18539	1.0980	.16335	1.0228	.16173
.9783	.15582	.9375	.14633	.9000	.13483		
SPAZ F G	LOG CONTAINMENT BLDG.		ELEV=905.75 DAMP=0.07 SSE			(E-W)	
39.5000	.47300	27.5000	.48184	15.8273	.69304	11.8535	.90808
7.0413	.89909	5.8047	1.04946	4.3862	1.03907	4.2308	1.07113
3.9285	1.15883	3.8009	1.27779	3.6666	1.37101	3.6184	1.39175
3.0870	1.37797	3.0556	1.42007	2.8948	1.53275	2.3684	1.51757
2.3190	1.51627	2.2517	1.48659	2.2500	1.48520	2.1967	1.44082
1.9565	1.38845	1.8750	1.36292	1.6667	.97096	1.5000	.68936
1.4516	.59699	1.3693	.48437	1.3235	.47957	1.2857	.47018
1.2500	.45281	1.1842	.40558	1.0714	.30167	1.0228	.29279
.9783	.27675	.9375	.25526	.9000	.22872		

CONTAINMENT860.00SSE

SPAX F G	LOG CONTAINMENT BLDG.		ELEV=860.00 DAMP=0.07 SSE			(N-S)	
39.5000	.32700	27.5000	.35820	15.8273	.49990	13.7500	.60992
11.8535	.61489	11.6897	.62133	9.5643	.61518	9.2308	.61461
8.7041	.60284	8.3790	.59687	8.0763	.64198	7.9538	.65108
6.8750	.86029	6.4606	.85177	6.0874	.93144	4.9806	.92222
3.6197	.93165	3.1095	.92243	3.0556	.96817	2.8948	1.04206
2.8380	1.05833	2.3220	1.04785	2.3190	1.04741	2.2517	1.03682
2.2500	1.03616	2.1429	.99187	2.0454	.92002	1.8750	.90426
1.6667	.67896	1.5000	.51207	1.4516	.45404	1.4062	.39762
1.3757	.38365	1.3235	.37985	1.2857	.37477	1.2500	.36463
1.1842	.33472	1.0714	.26010	1.0228	.25839	.9783	.24654
.9375	.22979	.9000	.20858				

SPAY F G	LOG CONTAINMENT BLDG.		ELEV=860.00 DAMP=0.07 SSE			(VERT)	
39.5000	.39501	27.5000	.41279	15.0273	.88087	13.1335	.87215
11.6897	.97156	11.2820	.99725	10.6383	1.04975	8.3419	1.03936
6.8750	1.59082	5.4711	1.57507	5.0000	1.56893	4.9806	1.55897
4.7493	1.43005	3.7500	.75393	3.4616	.61546	3.2143	.60097
2.8687	.55929	2.3684	.55375	2.3220	.54535	2.3190	.54474
2.1967	.51326	2.1429	.49525	2.0454	.45973	1.9129	.43699
1.8750	.42956	1.6667	.30704	1.5517	.27096	1.5000	.24967
1.4062	.20292	1.3637	.20011	1.2500	.18953	1.1842	.18053
1.1027	.15971	1.0228	.15813	.9783	.15328	.9375	.14459
.9000	.13318						

SPAZ F G	LOG CONTAINMENT BLDG.		ELEV=860.00 DAMP=0.07 SSE			(E-W)	
39.5000	.34900	27.5000	.35582	15.8273	.56630	11.8535	.77023
6.8750	.76260	5.8047	.90407	4.7493	.89512	3.6184	.93173
3.1081	.92250	3.0556	.96736	2.8948	1.04600	2.8344	1.06218
2.3190	1.05166	2.2517	1.03908	2.1429	.99518	2.0454	.92063
1.8750	.90564	1.6667	.68261	1.6071	.60340	1.5517	.56559
1.5000	.51546	1.4062	.39780	1.3769	.38487	1.3235	.38106
1.2857	.37618	1.2500	.36558	1.1842	.33505	1.0722	.26120
1.0228	.25861	.9783	.24782	.9375	.23144	.9000	.20943

CONTAINMENT@05.50SSE

SPAX F G	LOG CONTAINMENT BLDG.		ELEV=805.50 DAMP=0.07 SSE			(N-S)	
39.5000	.19400	27.5000	.22380	15.4273	.35925	14.9813	.35569
13.7500	.45614	11.8535	.46848	11.6897	.46945	11.2820	.47537
9.2308	.47066	8.4659	.44647	8.2090	.44205	7.5497	.53661
6.8750	.64326	6.5671	.64878	6.0874	.72532	4.9806	.71814
4.7493	.69223	4.5000	.66115	4.0909	.54864	3.7500	.52568
2.1429	.52048	2.0454	.51232	1.9565	.46908	1.9132	.44309
1.7308	.39420	1.5517	.32852	1.4516	.29827	1.4062	.27317
1.3235	.27113	1.2857	.26928	1.2500	.26593	1.1842	.25368
1.0957	.22105	1.0228	.21886	.9783	.21255	.9375	.20095
.9000	.18425						

SPAY F G	LOG CONTAINMENT BLDG.		ELEV=805.50 DAMP=0.07 SSE			(VERT)	
39.5000	.32279	27.5000	.32897	15.0273	.65231	11.7663	.64585
10.6383	.68011	8.9402	.67338	8.4811	.71492	8.2090	.79866
6.8750	1.38743	6.6869	1.43004	5.4711	1.41588	5.3731	1.38679
4.7493	1.16690	4.5000	1.06315	4.0909	.87932	3.7500	.64818
3.4616	.57720	3.2143	.56119	2.7803	.50240	2.3684	.49743
2.3220	.49117	2.3190	.49071	2.1967	.46512	2.1429	.45098
2.0454	.40187	1.9565	.34997	1.9132	.34897	1.8750	.34175
1.7308	.28985	1.6667	.26324	1.5517	.24332	1.5000	.22807
1.4062	.19273	1.2500	.18216	1.1842	.17567	1.1018	.15575
1.0228	.15421	.9783	.15055	.9375	.14276	.9000	.13142

SPAZ F G	LOG CONTAINMENT BLDG.		ELEV=805.50 DAMP=0.07 SSE			(E-W)	
39.5000	.21862	27.5000	.22701	15.8273	.42729	11.8535	.60609
9.6983	.60009	6.2393	.60573	5.8047	.73145	4.7493	.72421
4.5000	.69849	4.0909	.62641	3.4778	.42998	3.0851	.42572
2.8948	.48423	2.8344	.49819	2.7521	.50599	2.6191	.52353
2.1429	.51835	2.0454	.51171	1.9565	.47102	1.9132	.44622
1.7308	.39868	1.6667	.37344	1.6071	.33984	1.5517	.32950
1.4516	.29725	1.4062	.27210	1.3235	.27156	1.2857	.26911
1.2500	.26577	1.1842	.25427	1.0980	.22012	1.0228	.21794
.9783	.21339	.9375	.20309	.9000	.18649		

CONTAINMENT783.58SSE

SPAX F G	LOG CONTAINMENT BLDG.		ELEV=783.58 DAMP=0.07 SSE			(N-S)	
39.5000	.14200	27.5000	.17754	15.8273	.31645	14.8564	.31332
13.7500	.38781	11.8535	.40446	11.6897	.40601	11.2820	.41284
9.2308	.40875	8.7041	.37541	8.5672	.37488	8.4811	.37117
7.9538	.43310	6.8750	.53583	6.6869	.54703	6.1112	.64400
6.0874	.65384	4.9806	.64737	4.7493	.62858	4.5000	.60618
4.0909	.50193	3.7500	.46207	3.4616	.35528	3.2143	.34131
3.1099	.31954	3.0733	.31269	2.9764	.30959	2.8948	.32787
2.7521	.34313	2.5000	.35076	2.0454	.34729	1.9565	.33037
1.9132	.31751	1.7308	.30570	1.6667	.29098	1.6071	.26758
1.5517	.26752	1.5000	.26353	1.4516	.24984	1.4454	.24981
1.2500	.24734	1.1842	.24035	1.0877	.20511	1.0228	.20308
.9783	.19899	.9375	.18945	.9000	.17572		

SPAY F G	LOG CONTAINMENT BLDG.		ELEV=783.58 DAMP=0.07 SSE			(VERT)	
39.5000	.27367	27.5000	.27736	15.8273	.50983	15.0273	.55876
12.2951	.55323	11.5066	.52833	10.6383	.52310	9.1666	.53630
8.4811	.61632	6.8750	1.27451	6.8707	1.27524	6.6869	1.31955
5.4711	1.30649	5.3731	1.28378	4.5000	.97461	4.0909	.79795
3.7500	.58622	3.2143	.50960	2.5174	.37106	2.3684	.36739
2.1429	.34361	2.0454	.31057	1.9565	.27803	1.8000	.25024
1.7308	.23692	1.6667	.21856	1.6071	.21847	1.5517	.21674
1.5000	.20714	1.4516	.18807	1.3637	.18094	1.2500	.17632
1.1842	.17099	1.1036	.15286	1.0228	.15135	.9783	.14839
.9375	.14112	.9000	.13014				

SPAZ F G	LOG CONTAINMENT BLDG.		ELEV=783.58 DAMP=0.07 SSE			(E-W)	
39.5000	.17003	27.5000	.18221	15.8273	.35519	11.8535	.51783
6.4881	.51270	6.2393	.51545	5.8047	.65591	4.7493	.64942
4.5000	.62839	4.0909	.57851	3.4616	.35965	3.2143	.35048
3.1099	.33409	3.0400	.31414	2.9855	.31103	2.8948	.33115
2.7521	.34465	2.7500	.34473	2.6849	.34568	2.5000	.34976
2.0454	.34630	1.9565	.33225	1.9132	.32072	1.7308	.31010
1.6667	.29327	1.6090	.27066	1.5517	.26798	1.5000	.26179
1.4516	.24819	1.4486	.24946	1.2500	.24699	1.1842	.24079
1.0839	.20345	1.0228	.20144	.9783	.19943	.9375	.19157
.9000	.17714						

FUEL BUILDI918.00SSE

SPAX	F G	LOG FUEL	BUILDING	ELEV=918.00 DAMP=0.07 SSE			(E-W)	
44.0000	.62710	32.5444	.67070	24.6636	.83690	22.0000	1.10890	
20.1096	1.16827	17.1381	1.15670	16.0116	1.18580	14.6666	1.21950	
11.3754	2.00770	10.4266	2.38764	10.0416	2.36400	9.1666	2.73074	
7.5000	2.70370	7.2115	2.63360	6.4286	1.74310	5.6250	1.26810	
5.0000	.95630	4.5000	.66610	4.0909	.63370	3.7793	.52904	
3.2143	.52380	2.8125	.46300	2.7575	.44662	2.2500	.44220	
2.1429	.43250	1.8750	.33300	1.6667	.31290	1.5517	.31100	
1.5000	.30710	1.4516	.28540	1.4351	.27422	1.3235	.27150	
1.2000	.25100	1.1250	.21740	1.0000	.20810	.9473	.20040	
.9000	.18300							
SPAY	F G	LOG FUEL	BUILDING	ELEV=918.00 DAMP=0.07 SSE			(VERT)	
44.0000	.39470	37.1621	.47531	30.2234	.47060	24.6636	.61870	
22.6337	.70930	20.1096	.89250	19.2983	1.03680	16.0116	1.21887	
12.4128	1.20680	11.0000	1.29846	9.0000	1.28560	8.3334	1.21370	
7.2115	1.19670	6.4286	.87280	5.6250	.65370	5.0000	.54020	
4.5000	.49940	4.0909	.49690	3.7500	.44330	3.4616	.43550	
3.2143	.40040	3.0000	.35760	2.6471	.32710	2.5339	.30381	
2.3684	.30080	2.1429	.27690	1.9565	.23320	1.8827	.21675	
1.7308	.21460	1.5517	.20210	1.5000	.19590	1.4236	.17715	
1.3637	.17540	1.2000	.17060	1.0883	.14675	1.0000	.14530	
.9473	.13960	.9000	.12800					
SPAZ	F G	LOG FUEL	BUILDING	ELEV=918.00 DAMP=0.07 SSE			(N-S)	
44.0000	.63770	32.5444	.69100	24.6636	.91390	22.6337	1.16150	
17.4651	1.15600	16.0116	1.20250	14.6666	1.64210	11.4107	1.98889	
10.4026	1.96920	10.1852	2.13030	9.1666	2.42067	7.5000	2.39670	
7.2115	2.33140	6.4286	1.52150	5.6250	1.12240	4.5000	.59510	
4.0909	.58990	3.8018	.50894	3.2143	.50390	2.8125	.43730	
2.7957	.43743	2.2500	.43310	2.1429	.42060	1.9565	.35670	
1.8848	.31977	1.8000	.31660	1.7308	.31300	1.5517	.30610	
1.5000	.30180	1.4516	.27990	1.4375	.27119	1.3235	.26850	
1.2000	.24520	1.1250	.21900	1.0000	.20640	.9473	.19970	
.9000	.18320							

FUEL BUILDI899.50SSE

SPAX F G	LOG FUEL	BUILDING	ELEV=899.50 DAMP=0.07 SSE			(E-W)	
44.0000	.56060	32.5444	.59570	24.6636	.74470	22.0000	.95950
20.1096	.98414	17.6623	.97440	14.6666	1.06840	11.3754	1.75620
10.4266	2.10928	10.0718	2.08840	9.1666	2.49319	7.5000	2.46850
7.2115	2.40650	6.4286	1.60000	5.6250	1.17350	5.0000	.90370
4.5000	.62240	4.0909	.60180	3.7815	.51187	3.2143	.50680
2.8125	.45120	2.7703	.44097	2.2500	.43660	2.1429	.42640
1.8750	.32850	1.6667	.30930	1.5517	.30740	1.5000	.30360
1.4516	.28210	1.4363	.27220	1.3235	.26950	1.2000	.24920
1.1250	.21620	1.0000	.20680	.9473	.19920	.9000	.18220
SPAY F G	LOG FUEL	BUILDING	ELEV=899.50 DAMP=0.07 SSE			(VERT)	
44.0000	.40360	37.1621	.46511	31.4722	.46050	24.6636	.63080
22.6337	.73650	20.1096	.91940	19.2983	1.05240	16.0116	1.23139
12.9052	1.21920	11.4107	1.30530	11.0000	1.32380	9.1666	1.35421
7.5000	1.34080	7.2115	1.34030	6.4286	.95450	5.6250	.69010
5.0000	.56030	4.5000	.51360	4.0909	.50440	3.7500	.44820
3.4616	.44120	3.2143	.40460	3.0000	.36240	2.6471	.32720
2.5359	.30431	2.3684	.30130	2.1429	.27710	2.0454	.24680
1.9565	.23360	1.8847	.21695	1.7308	.21480	1.5517	.20260
1.5000	.19640	1.4516	.17750	1.4377	.17726	1.3637	.17550
1.2000	.17020	1.0858	.14625	1.0000	.14480	.9473	.13970
.9000	.12820						
SPAZ F G	LOG FUEL	BUILDING	ELEV=899.50 DAMP=0.07 SSE			(N-S)	
44.0000	.54270	34.8101	.55280	24.6636	.66320	22.6337	.81103
18.3508	.80300	16.0116	.90810	14.6666	1.27340	11.4107	1.59085
11.0664	1.57510	10.4266	1.62440	10.1852	1.78070	9.1666	2.08313
7.5000	2.06250	7.2115	2.00260	6.4286	1.32920	5.6250	.99630
4.5016	.55439	4.0909	.54890	3.8081	.48702	3.2143	.48220
2.8457	.43046	2.2500	.42620	2.1429	.41370	1.8750	.32560
1.6667	.30620	1.5517	.30200	1.5000	.29780	1.4516	.27610
1.4384	.26836	1.3235	.26570	1.2000	.24420	1.1250	.21740
1.0000	.20560	.9473	.19860	.9000	.18210		

FUEL BUILDI860.00SSE

SPAX F G	LOG FUEL BUILDING		ELEV=860.00 DAMP=0.07 SSE		(E-W)	
44.0000	.29228	37.1621	.29755	34.6386	.29460	24.6636	.35650
22.6337	.42540	20.1096	.52409	16.4533	.51890	16.4234	.51790
16.3559	.51914	14.6666	.51400	11.4107	.78020	10.4266	.97350
10.1852	.98270	9.2359	1.36660	9.1666	1.39140	8.8141	1.46965
7.2115	1.45510	6.4286	1.01540	5.6250	.78080	5.0000	.66870
4.5000	.47980	4.0909	.47440	3.7858	.44369	3.2143	.43930
3.0000	.40713	2.9451	.40310	2.7500	.41804	2.2500	.41390
2.1429	.40220	1.8750	.31260	1.7308	.30380	1.6667	.29580
1.5517	.29490	1.5000	.29030	1.4516	.26940	1.4399	.26341
1.3235	.26080	1.2857	.25660	1.2000	.24140	1.1250	.21170
1.0000	.20200	.9473	.19540	.9000	.17920		
SPAY F G	LOG FUEL BUILDING		ELEV=860.00 DAMP=0.07 SSE		(VERT)	
44.0000	.36260	32.0699	.38770	22.6337	.58610	20.1096	.76000
19.2983	.86940	16.0116	1.05656	13.7474	1.04610	11.4107	1.22400
11.0000	1.24340	10.1852	1.27715	8.3334	1.26450	7.2115	1.24600
6.4286	.88760	5.6250	.65860	5.0000	.54000	4.5000	.49580
4.0909	.49250	3.7500	.43870	3.4616	.43400	3.2143	.39750
3.0000	.35560	2.6471	.32530	2.5367	.30169	2.3684	.29870
2.1429	.27490	2.0454	.24480	1.9565	.23260	1.8849	.21644
1.7308	.21430	1.5517	.20160	1.5000	.19540	1.4240	.17685
1.3637	.17510	1.2000	.17010	1.0863	.14625	1.0000	.14480
.9473	.13950	.9000	.12810				
SPAZ F G	LOG FUEL BUILDING		ELEV=860.00 DAMP=0.07 SSE		(N-S)	
44.0000	.32108	37.0993	.31790	24.6636	.36620	22.6337	.42170
19.2983	.43750	16.0116	.48740	14.6666	.55800	11.4107	.95290
10.4266	1.01740	10.1852	1.10670	9.1666	1.41804	7.5000	1.40400
7.2115	1.35670	6.4286	.95680	5.0000	.61460	4.5325	.47046
4.0909	.46580	3.8577	.44470	3.2143	.44030	3.0000	.40400
2.9292	.40000	2.8948	.40300	2.7500	.41632	2.2500	.41220
2.1429	.39800	1.8750	.31350	1.7308	.30340	1.6667	.29720
1.5517	.29390	1.5000	.28910	1.4516	.26780	1.4406	.26230
1.3235	.25970	1.2000	.24080	1.1250	.21310	1.0000	.20200
.9473	.19600	.9000	.17930				

FUEL BUILDI841.00SSE

SPAX F G	LOG FUEL	BUILDING	ELEV=841.00 DAMP=0.07 SSE			(E-W)	
44.0000	.26583	37.1621	.27129	34.7710	.26860	24.6636	.32980
22.0000	.43240	20.1096	.50096	16.4533	.49600	16.4234	.50035
14.6230	.49540	11.4107	.61680	10.4266	.78700	10.1852	.80280
9.2359	1.10710	9.1666	1.12320	8.8141	1.20574	7.2115	1.19380
6.4286	.86850	5.6250	.67540	5.0000	.60350	4.5000	.44660
4.0909	.43940	3.8420	.42784	3.2143	.42360	3.0832	.40541
2.8948	.40140	2.7500	.41188	2.2500	.40780	2.1429	.39530
1.8750	.30850	1.7308	.30300	1.6667	.29370	1.5517	.29170
1.5000	.28680	1.4516	.26650	1.4403	.26109	1.3235	.25850
1.2857	.25530	1.2000	.24030	1.1250	.21040	1.0000	.20150
.9473	.19470	.9000	.17840				
SPAY F G	LOG FUEL	BUILDING	ELEV=841.00 DAMP=0.07 SSE			(VERT)	
44.0000	.35295	32.5444	.36370	22.6337	.54430	20.1096	.69750
19.2983	.81220	16.0116	1.00051	13.4045	.99060	11.4107	1.17100
11.0000	1.20634	9.0000	1.19440	8.3334	1.19240	7.2115	1.17160
6.4286	.85100	5.6250	.63900	5.0000	.53010	4.5000	.48940
4.0909	.48900	3.7500	.43670	3.4616	.43180	3.2143	.39580
3.0000	.35380	2.6471	.32460	2.5365	.30108	2.3684	.29810
2.1429	.27440	2.0454	.24440	1.9565	.23230	1.8845	.21604
1.7308	.21390	1.5517	.20130	1.5000	.19520	1.4239	.17655
1.3637	.17480	1.2000	.17000	1.0866	.14615	1.0000	.14470
.9473	.13940	.9000	.12800				
SPAZ F G	LOG FUEL	BUILDING	ELEV=841.00 DAMP=0.07 SSE			(N-S)	
44.0000	.26910	34.8101	.27492	32.4506	.27220	22.6337	.38470
22.0000	.41910	16.0116	.43380	14.6666	.47580	11.4107	.77400
11.3754	.78396	10.9806	.77620	10.1852	.94660	9.1666	1.25543
7.5000	1.24300	7.2115	1.20340	6.4286	.86330	5.0000	.58170
4.5196	.44895	4.0909	.44450	3.9022	.43420	3.2143	.42990
3.0577	.40481	2.8948	.40080	2.7500	.41279	2.2500	.40870
2.1429	.39410	1.8750	.31060	1.7308	.30220	1.6667	.29550
1.5517	.29200	1.5000	.28690	1.4516	.26610	1.4409	.26098
1.3235	.25840	1.2857	.25310	1.2000	.23960	1.1250	.21210
1.0000	.20160	.9473	.19540	.9000	.17870		

FUEL BUILDI825.00SSE

SPAX F G	LOG FUEL	BUILDING	ELEV=825.00 DAMP=0.07 SSE			(E-W)	
44.0000	.25129	32.5444	.25590	24.6636	.31180	22.0000	.40370
20.1096	.45652	16.4533	.45200	16.4234	.45150	16.2593	.44460
15.0281	.44020	11.4107	.54320	10.4266	.66390	10.1852	.69210
9.2359	.93950	8.8141	1.03384	7.2115	1.02360	6.4286	.76950
5.6250	.60210	5.0000	.55830	4.5000	.42320	4.0909	.41370
3.2143	.41220	3.0844	.39390	3.0556	.39000	2.8948	.39840
2.7500	.40743	2.2500	.40340	2.1429	.39020	1.8750	.30570
1.7308	.30220	1.6667	.29200	1.5517	.28940	1.5000	.28420
1.4516	.26440	1.4409	.25977	1.3235	.25720	1.2857	.25450
1.2000	.23960	1.1250	.29950	1.0000	.20120	.9473	.19420
.9000	.17790						

SPAY F G	LOG FUEL	BUILDING	ELEV=825.00 DAMP=0.07 SSE			(VERT)	
44.0000	.34576	32.0699	.35690	22.6337	.52260	20.1096	.67360
19.2983	.78500	16.0116	.97202	13.4853	.96240	11.4107	1.15080
11.0000	1.18433	9.0000	1.17260	8.3334	1.16520	7.2115	1.13130
6.4286	.82920	5.6250	.62730	5.0000	.52440	4.5146	.49137
4.0909	.48650	3.7500	.43500	3.4616	.43030	3.2143	.39450
3.0000	.35260	2.6471	.32420	2.5365	.30068	2.3684	.29770
2.1429	.27400	2.0454	.24410	1.9565	.23200	1.8846	.21594
1.7308	.21380	1.5517	.20120	1.5000	.19500	1.4236	.17635
1.3637	.17460	1.2000	.16990	1.0870	.14615	1.0000	.14470
.9473	.13930	.9000	.12790				

SPAZ F G	LOG FUEL	BUILDING	ELEV=825.00 DAMP=0.07 SSE			(N-S)	
44.0000	.23226	32.5444	.23570	24.6636	.31070	22.6337	.35720
22.0000	.41006	18.0229	.40600	16.0116	.41950	14.6666	.44640
10.4266	.73120	9.2359	1.05610	9.1666	1.08535	7.5000	1.07460
7.2115	1.05490	6.4286	.76740	5.0000	.54650	4.5000	.42300
4.0909	.42150	4.0313	.42309	3.2143	.41890	3.1015	.40228
2.8948	.39830	2.7500	.40885	2.2500	.40480	2.1429	.38980
1.8750	.30770	1.7308	.30090	1.6667	.29380	1.5517	.28990
1.5000	.28480	1.4516	.26450	1.4412	.25987	1.3235	.25730
1.2857	.25250	1.2000	.23920	1.1250	.21120	1.0000	.20140
.9473	.19490	.9000	.17830				

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FUEL BUILDI810.50SSE
SPAX   F G   LOG   FUEL  BUILDING        ELEV=810.50 DAMP=0.07 SSE     (E-W )
  44.0000     .23748   34.8101     .24080    32.5444     .24330    24.6636     .28990
  22.0000     .36540   20.1096     .40723    17.1976     .40320    16.0116     .42652
  15.3232     .42230   14.6666     .44050    11.3754     .50870    11.0000     .54460
  10.4266     .57570    9.2359     .79760     8.8141     .88840     7.2115     .87960
   6.4286     .68350    5.6250     .54480     5.0000     .51860     4.5000     .40460
   3.2143     .40190    3.1260     .39067     3.0556     .38680     2.8948     .39530
   2.7500     .40329    2.2500     .39930     2.1429     .38550     1.8750     .30320
   1.7308     .30140    1.6667     .29040     1.5517     .28710     1.5000     .28200
   1.4516     .26270    1.4415     .25866     1.3235     .25610     1.2857     .25380
   1.2000     .23890    1.1250     .20870     1.0000     .20090      .9473     .19380
    .9000     .17750
SPAY   F G   LOG   FUEL  BUILDING        ELEV=810.50 DAMP=0.07 SSE     (VERT)
  44.0000     .32809   32.5444     .33770    24.6636     .42470    22.6337     .47360
  20.1096     .61480   19.2983     .71980    16.0116     .90728    13.6808     .89830
  11.4107    1.10170   11.0000    1.13009     9.0000    1.11890     8.8194    1.11009
   8.3334    1.09910    7.2115    1.03460     6.4286     .77440     5.6250     .59840
   5.0000     .50740    4.5840     .48258     4.0909     .47780     3.7500     .42840
   3.4616     .42450    3.2143     .38950     3.0000     .34820     2.6471     .32320
   2.5327     .29896    2.3684     .29600     2.1429     .27270     2.0454     .24290
   1.9565     .23100    1.8841     .21533     1.7308     .21320     1.5517     .20030
   1.5000     .19420    1.4248     .17594     1.3637     .17420     1.2000     .16980
   1.0865     .14615    1.0000     .14470      .9473     .13910      .9000     .12760
SPAZ   F G   LOG   FUEL  BUILDING        ELEV=810.50 DAMP=0.07 SSE     (N-S )
  44.0000     .21010   34.8101     .22260    32.5444     .22490    24.6636     .26950
  22.6337     .32870   22.0000     .37865    18.1825     .37490    16.0116     .41057
  15.2070     .40650   11.4107     .54940    10.1852     .64290     9.2359     .91810
   9.1666     .92960    7.5000     .92040     7.2115     .92020     6.4286     .68020
   5.0000     .51340    4.5000     .41188     4.0266     .40780     3.9285     .41279
   3.2143     .40870    3.0778     .38764     3.0556     .38380     2.8948     .39550
   2.7500     .40511    2.2500     .40110     2.1429     .38590     1.8750     .30520
   1.7308     .30000    1.6667     .29220     1.5517     .28800     1.5000     .28280
   1.4516     .26310    1.4414     .25886     1.3235     .25630     1.2857     .25230
   1.2000     .23890    1.1250     .21040     1.0000     .20110      .9473     .19440
    .9000     .17800
19.38.03.UCLP, FC, HHW03EG,      2.688KLNS.
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