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FIS-4R

116
2/7

REFINED RESPONSE SPECTRA FOR

SERVICE WATER INTAKE STRUCTURE

COMANCHE PEAK STEAM ELECTRIC STATION NUCLEAR POWER PLANT

8411060420 840620
PDR ADOCK 05000445
A PDR

GIBBS & HILL

RECEIVED DECEMBER '82

JUN 7 1984

GYGNA - SAN FRANCISCO

CPSES

REFINED RESPONSE SPECTRA FOR SERVICE WATER INTAKE STRUCTURE

Presented herewith are the refined floor response spectra for the S.W. Intake structure (references 2 and 3) based on existing response spectra (reference 1) and developed primarily for as-built piping analysis. These response spectra have been refined based upon improved curve smoothing techniques by use of computer, instead of by hand. Therefore, undue hand smoothing and digitizing have been eliminated. Also, improved interpolation has been used at lumped masses based on time history responses. The results are plotted in terms of accelerations versus frequencies for ease of use.

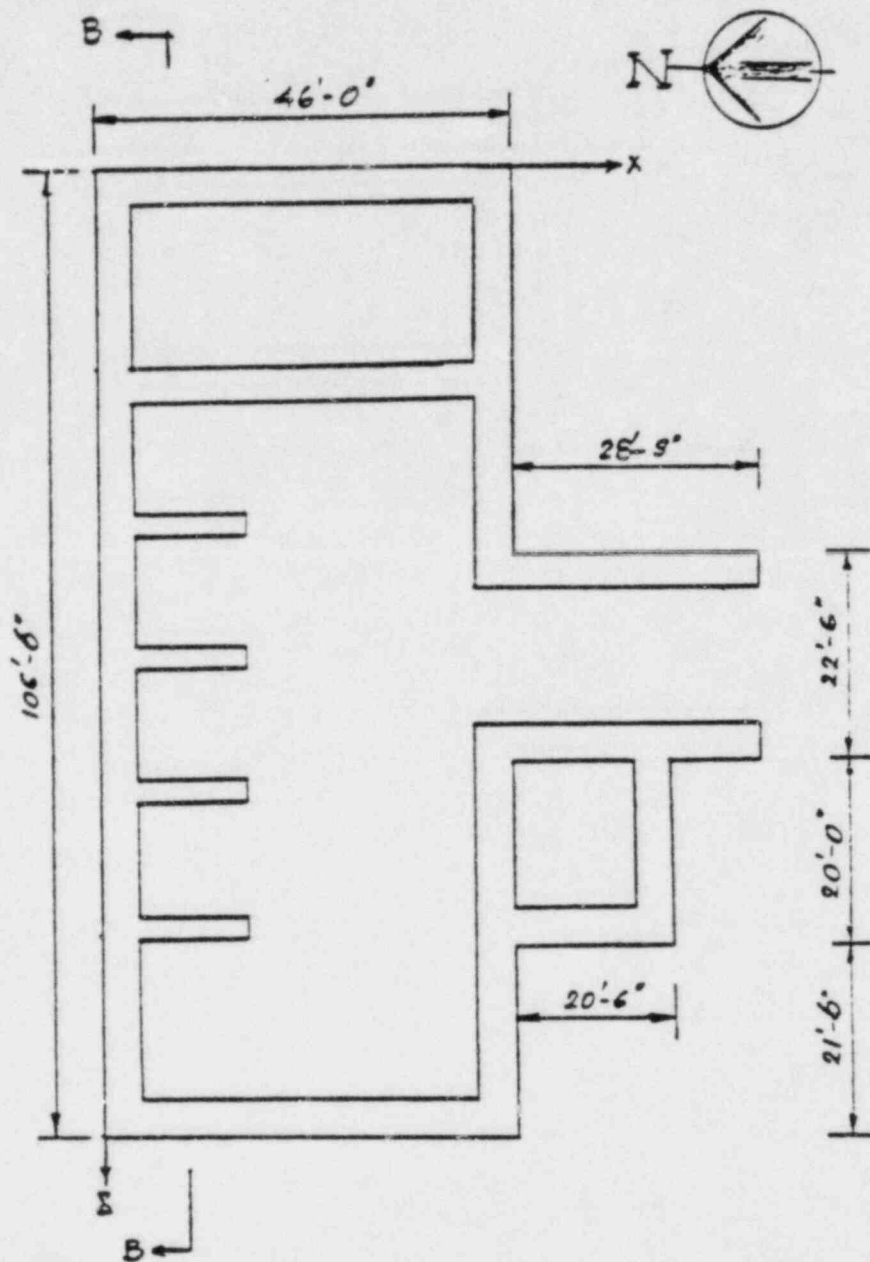
The results are presented in figures 1358-B through 1363-B and 1349-B through 1354-B which are summarized in Table no. 2. Also the digitized values of the same spectra are included at the end of the book.

Each figure refers to a specific floor of the building, and contains three curves labeled Ax, Ay and Az, which represent the spectral accelerations in the x, y and z orthogonal directions respectively due to the combined effect of three simultaneous earthquakes at the specified % damping. Please note that Az and Ax are in the east-west and the north-south directions respectively while Ay is in the vertical direction based upon the plant's general coordinate system.

All spectra presented in this report include the coupling effects of non-symmetric structure. The curves shown are for the most critical location of the floor, considering the combined effect of translation and rotation.

References:

1. "Instructure Response Spectra for S.W. Intake Structure," Gibbs & Hill report no. FIS-2R, June 1976.
2. "TUSI - Refined Response Spectra for S.W. Intake Structure," calculation book no. FIS-2C, Rev. 0
3. "TUSI - Computer Output for S.W. Intake Structure," computer output file no. FMI-1P Set 4, Rev. 0.



PLAN VIEW EL. 752'-0"

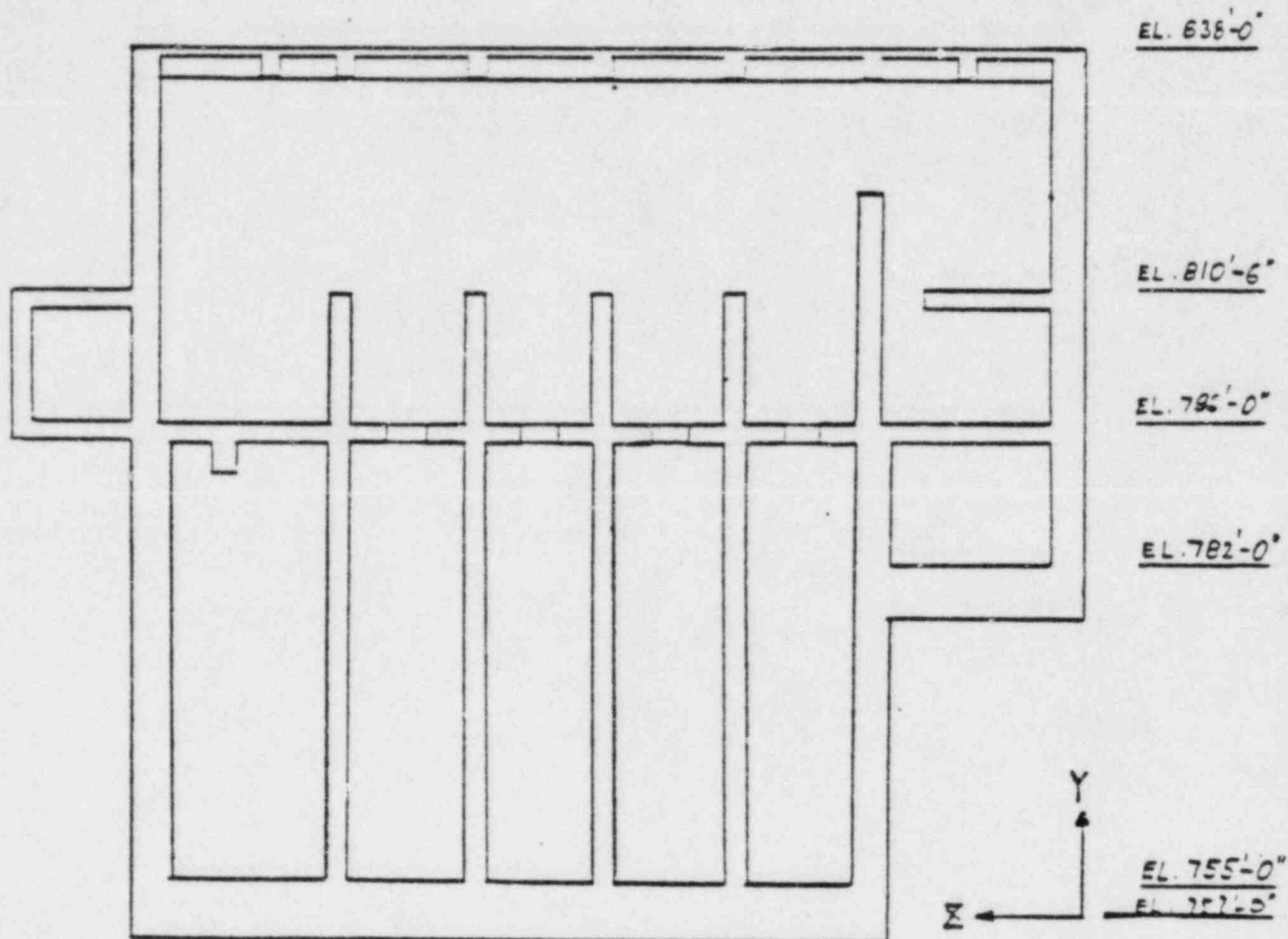
TUSI
S.W. INTAKE STRUCTURE

Gibbs & Hill, Inc.
ENGINEERS, ARCHITECTS, CONSTRUCTORS
RINO 1991

SCALE - 1/32" = 2'-0"

SKETCH 1.

DATE	BY	CHKD	APPD	ISSUED FOR



SECTION B-B

TUSI
S.W. INTAKE STRUCTURE

Gibbs & Hill, Inc.

ENGINEERS, DESIGNERS, CONSULTANTS

NEW YORK

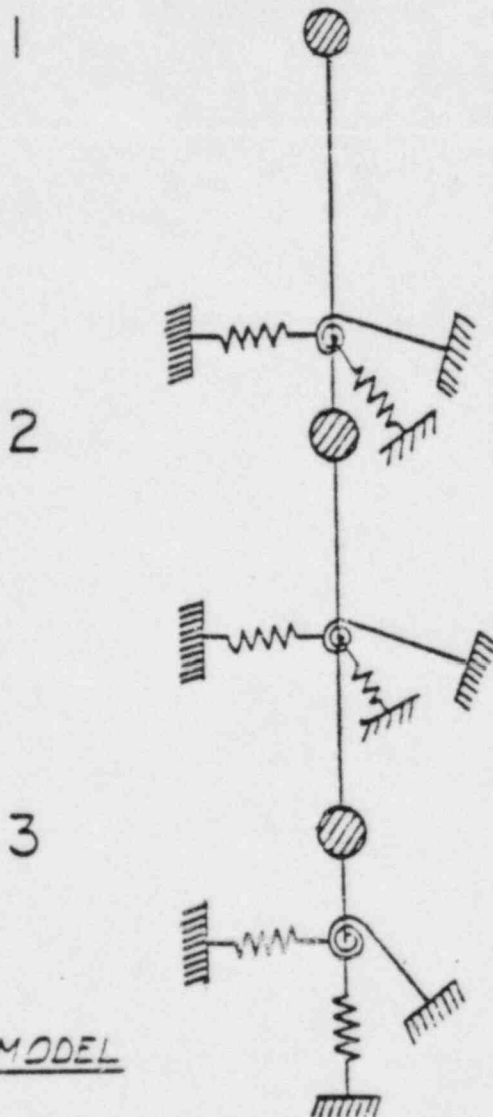
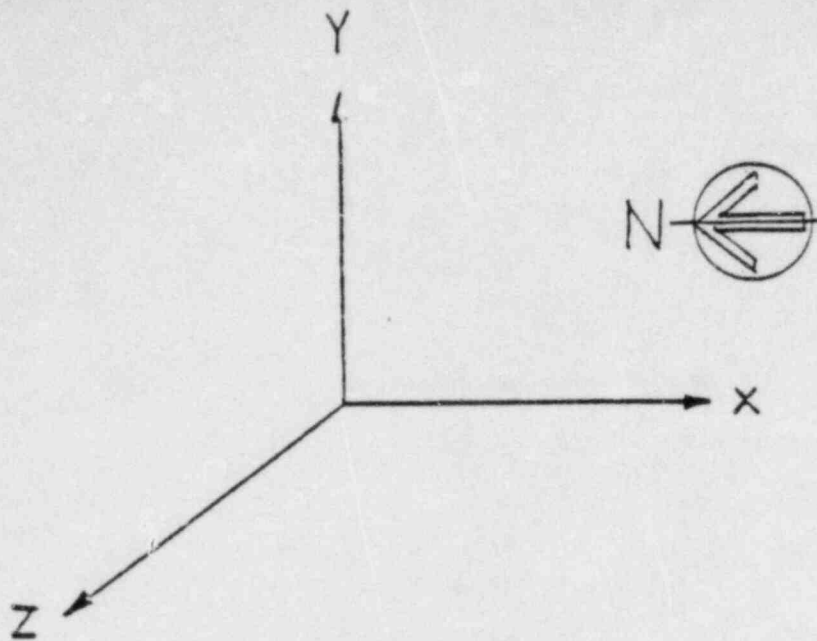
SCALE - 1/32" = 1'-0"

SKETCH 2

DATE: 10/10/61
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APPROVED: [Signature]

ISSUED FOR

PROJECT NO. 6223-4



DYNAMIC MODEL

TUSI
S.W. INTAKE STRUCTURE

Gibbs & Hill, Inc.

ENGINEERS: MECHANICAL CONSTRUCTION

REV 1004

SCALE -

SKETCH 3

FOR NO. 2322-A

ISSUED FOR

DATE: 1964-11-11

11.

MASS NO.		X (FT.)	Y (FT.)	Z (FT.)
1		21.95	72.36	53.13
2		26.87	36.02	57.97
3		29.63	10.70	59.62
BASE SOIL SPRING		29.52	1.57	54.83
EMBEDDED SOIL SPRING	LOWER	17.90	24.00	64.25
	UPPER	6.95	39.86	53.25

TUSI

SERVICE WATER INTAKE STRUCTURE

55-1441

BOOKSHELVES, 72344-0000, COUNTRY CLUB

1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 26

REF ID: A6223

Focus:

TABLE 1

SUMMARY OF REFINED FLOOR RESPONSE SPECTRA

FIGURE NO.	FLOOR ELEVATION	DAMPING %	EARTHQUAKE	TYPE OF MOTION
1358-B	838.00 FT.	1	1/2 SSE	TRANSL. & ROT.
1359-B	796.00 FT.	1	1/2 SSE	TRANSL. & ROT.
1360-B	755.00 FT.	1	1/2 SSE	TRANSL. & ROT.
1361-B	838.00 FT.	2	1/2 SSE	TRANSL. & ROT.
1362-B	796.00 FT.	2	1/2 SSE	TRANSL. & ROT.
1363-B	755.00 FT.	2	1/2 SSE	TRANSL. & ROT.
1349-B	838.00 FT.	2	SSE	TRANSL. & ROT.
1350-B	796.00 FT.	2	SSE	TRANSL. & ROT.
1351-B	755.00 FT.	2	SSE	TRANSL. & ROT.
1352-B	838.00 FT.	3	SSE	TRANSL. & ROT.
1353-B	796.00 FT.	3	SSE	TRANSL. & ROT.
1354-B	755.00 FT.	3	SSE	TRANSL. & ROT.

TUSI

SERVICE WATER INTAKE STRUCT.

Robert C. McLean

SEISMIC ENGINEER

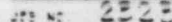
San Francisco, California

DATE: 11/21/71

TABLE 2

TABLE 2

838.00



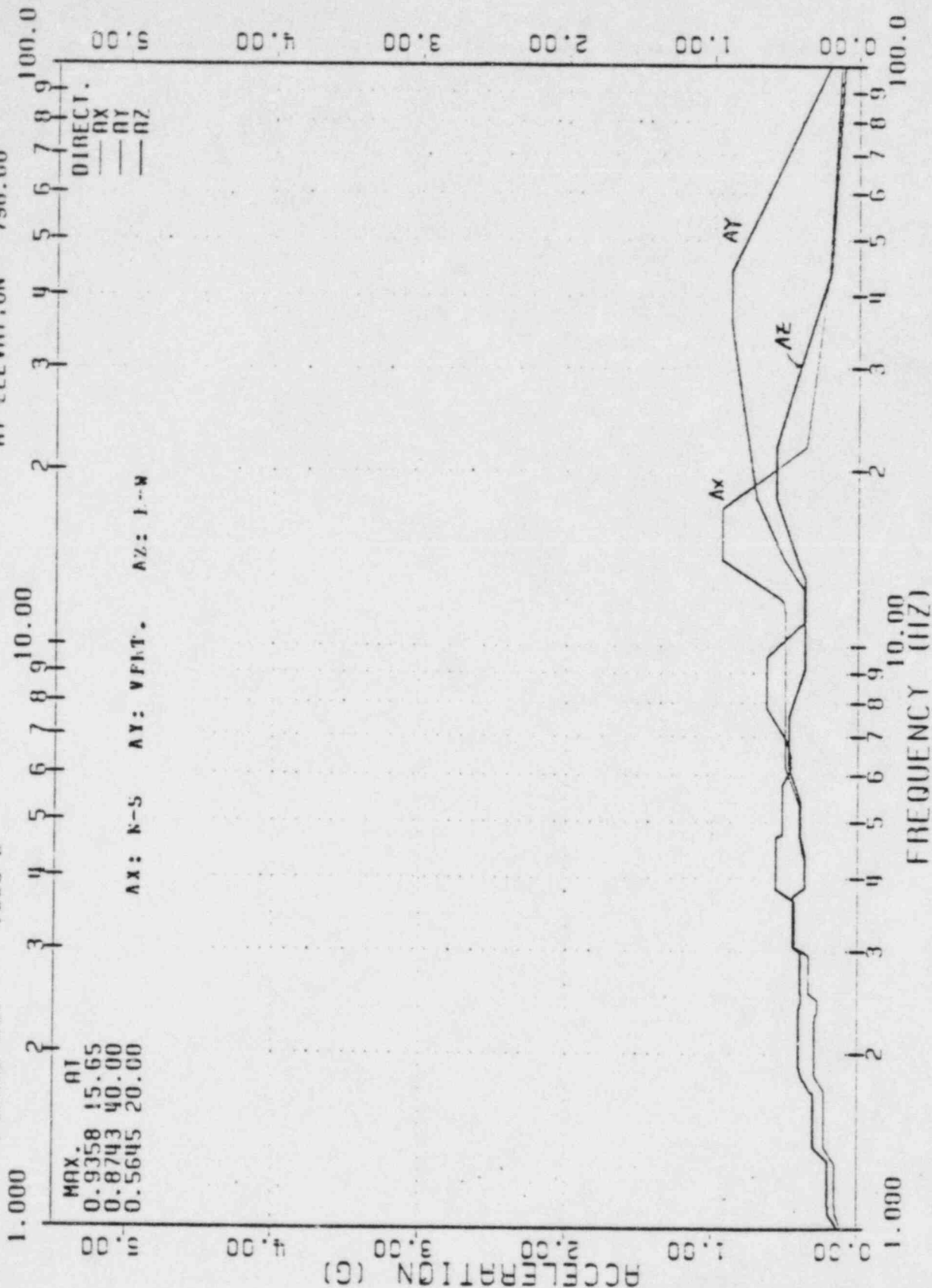
TUSI-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STR

FLOOR RESPONSE SPECTRA FOR 1/255SE;

FIGURE NO. 1359-B

DAMPING = 0.01

AT ELEVATION 796.00



TUSI-S.W.INTAKE STR.

REFINED RESPONSE SPECTRA

GIBBS & HILL, INC.

ENGINEERS, DESIGNERS, CONSTRUCTORS

JOB NO. 2325

FIGURE-1359-B

12/25/58

APPROVED FOR THE PROJECT

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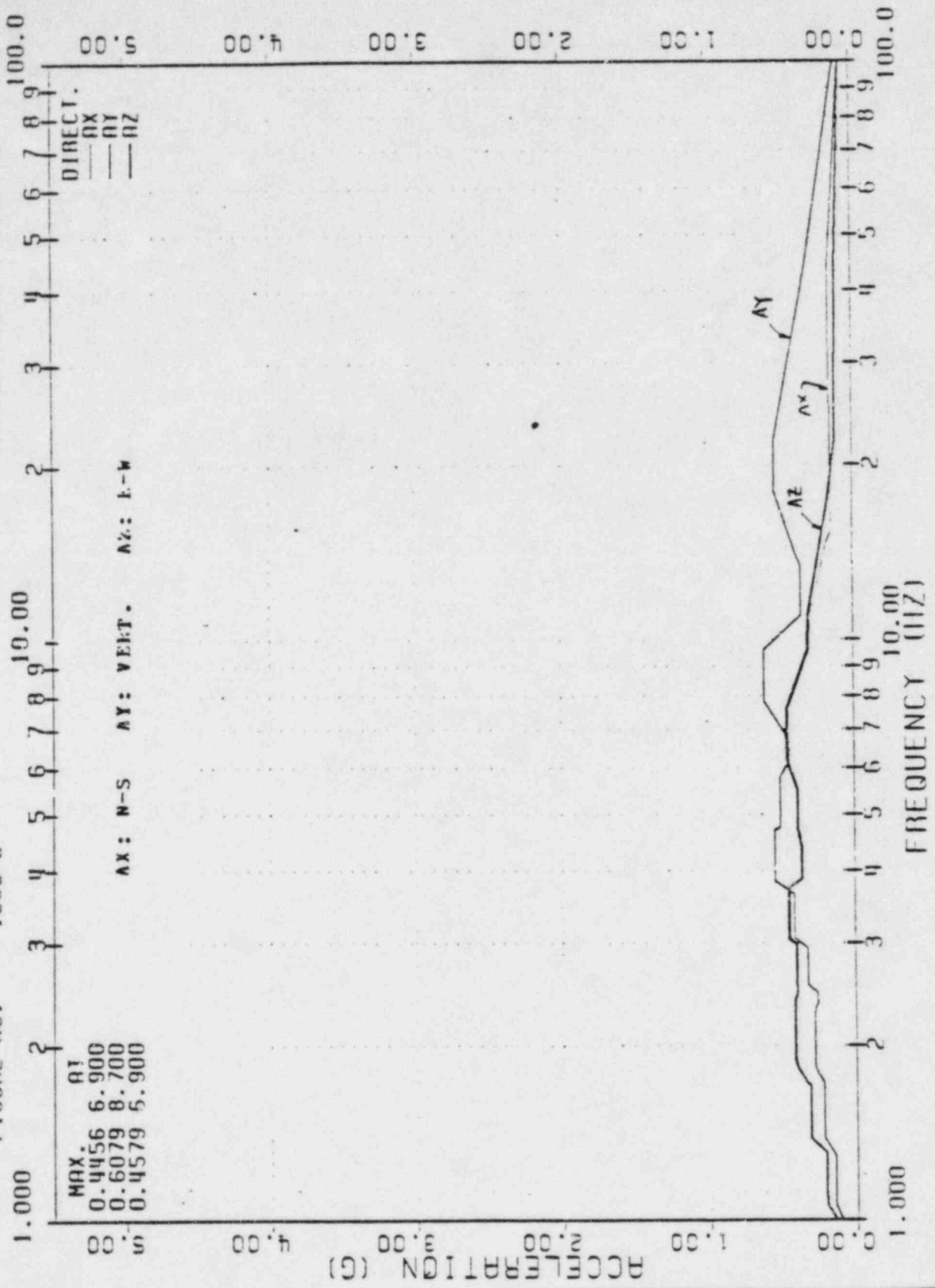
TUSI-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STR

FLOOR RESPONSE SPECTRA FOR 1/25SE;

FIGURE NO. 1360-B

DAMPING = 0.01

AT ELEVATION 755.00



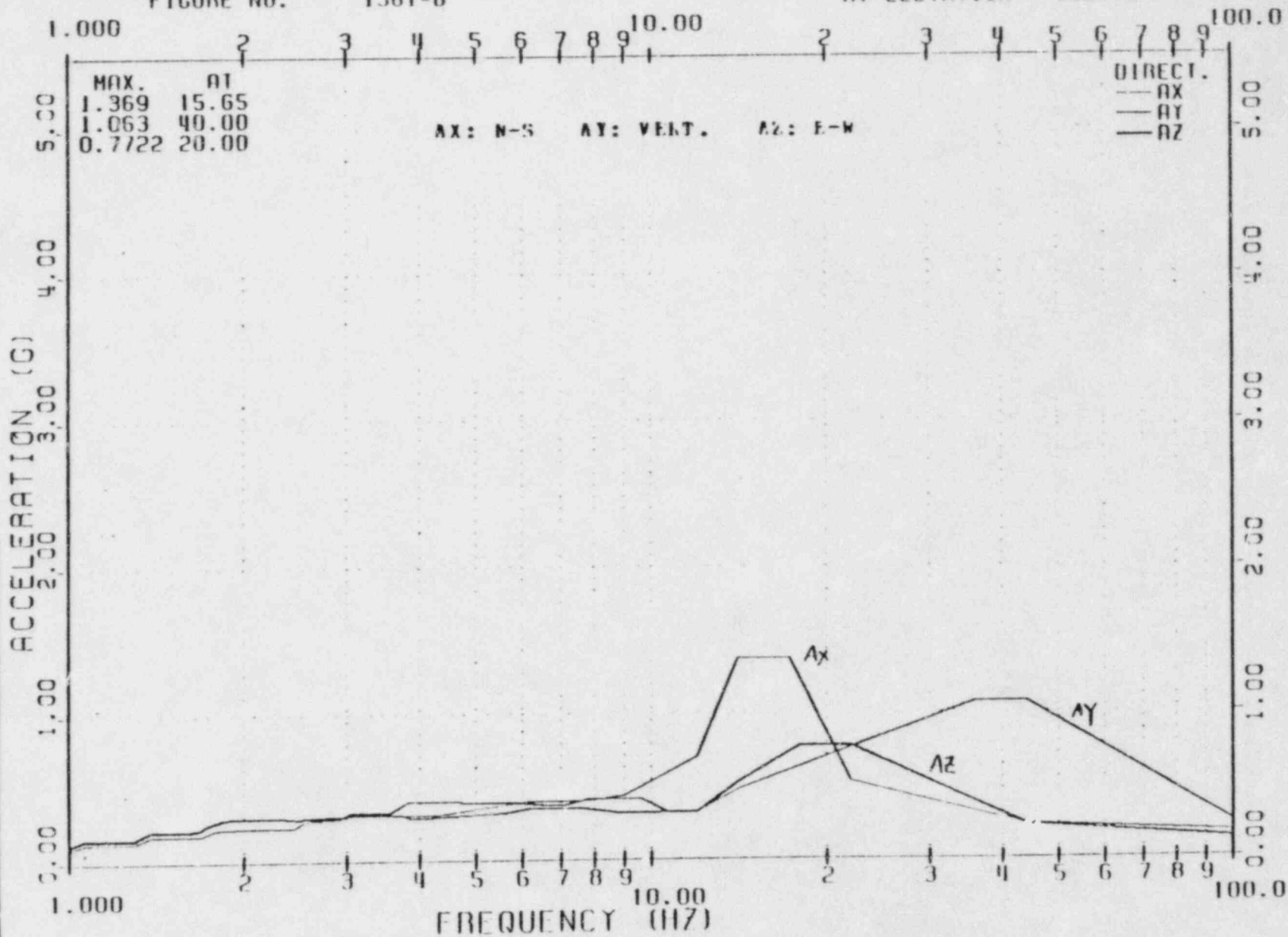
MAX. AT
0.4456 6.900
0.6079 8.700
0.4579 5.900

AX: N-S AY: VERT. AZ: E-W

TUSI-S.W. INTAKE STR.	
REFINED RESPONSE SPECTRA	
GIBBS & HILL, INC.	FIGURE-1360-B
ENGINEERS DESIGNERS, CONSTRUCTORS.	
JOB NO. 2523	

TUSI-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STR
 FLOOR RESPONSE SPECTRA FOR 1/2SSE;
 FIGURE NO. 1361-B

DAMPING = 0.02
 AT ELEVATION 838.00



TUSI-S.W. INTAKE STR.

REFINED RESPONSE SPECTRA

GIBBS & HILL, INC.

ENGINEERING, DESIGN, CONSTRUCTION

225 25

FIGURE-1361-B

YTF-40K

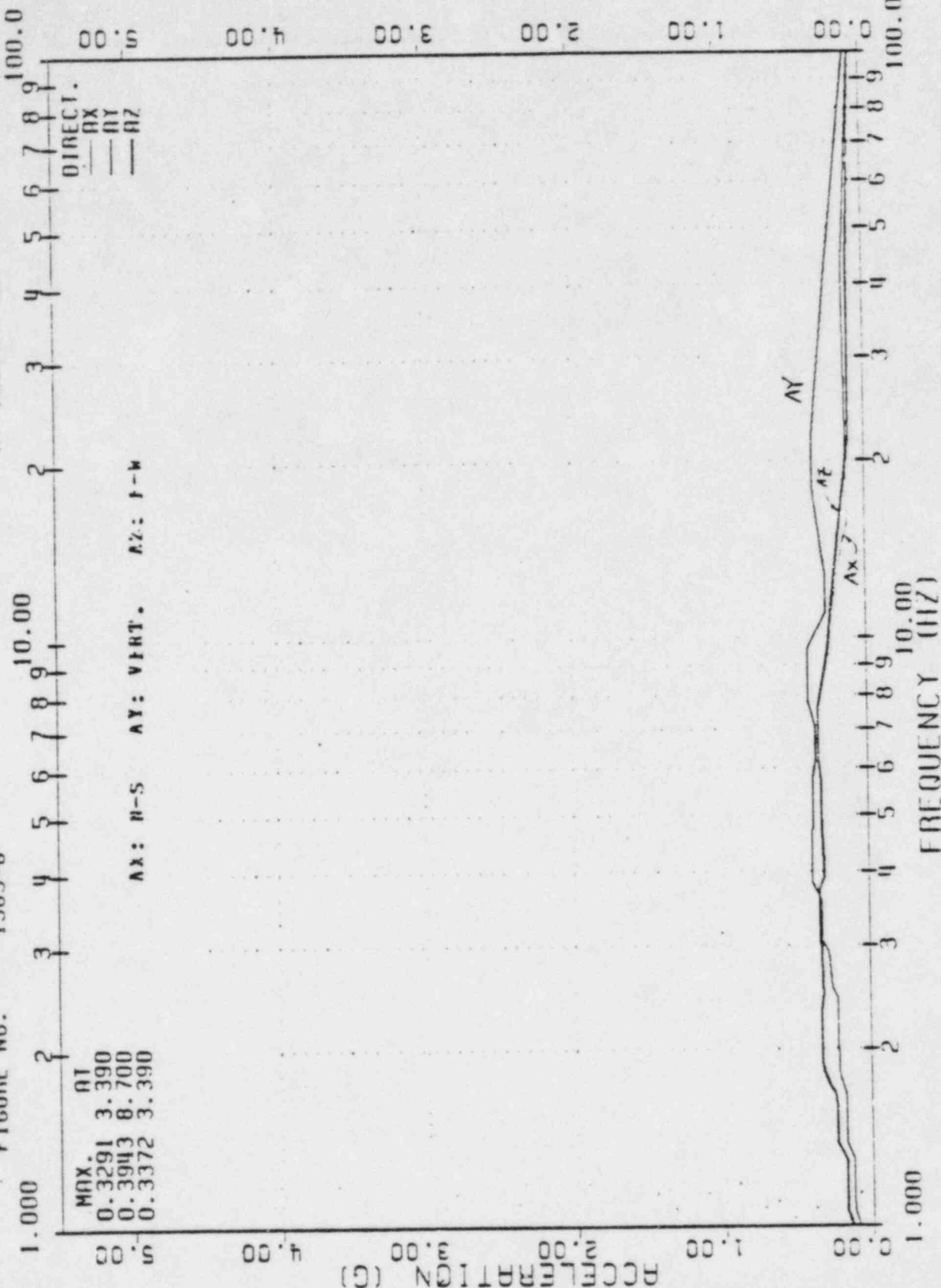
TUSI-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STR

FLOOR RESPONSE SPECTRA FOR 1/25SE;

FIGURE NO. 1363-B

DAMPING = 0.02

AT ELEVATION 755.00



TUSI-S.W. INTAKE STR.

REFINED RESPONSE SPECTRA

GIBBS & HILL, INC.
ENGINEERS, DESIGNERS, CONSTRUCTORS

FIGURE-1363-B

JOB NO. 2323

ISSUED FOR

DATE

12/28/68

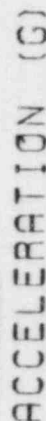
BY

APPROVED

TW-6

AT ELEVATION 796.00

DIRECT.
— AX
— AY
— AZ



REFINED RESPONSE SPECTRA

GIBBS & HILL, INC.

EMC MEERS, DIST. GEMERS, CONSTRUCTION

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2375 JRP m.

FILED-1350-5

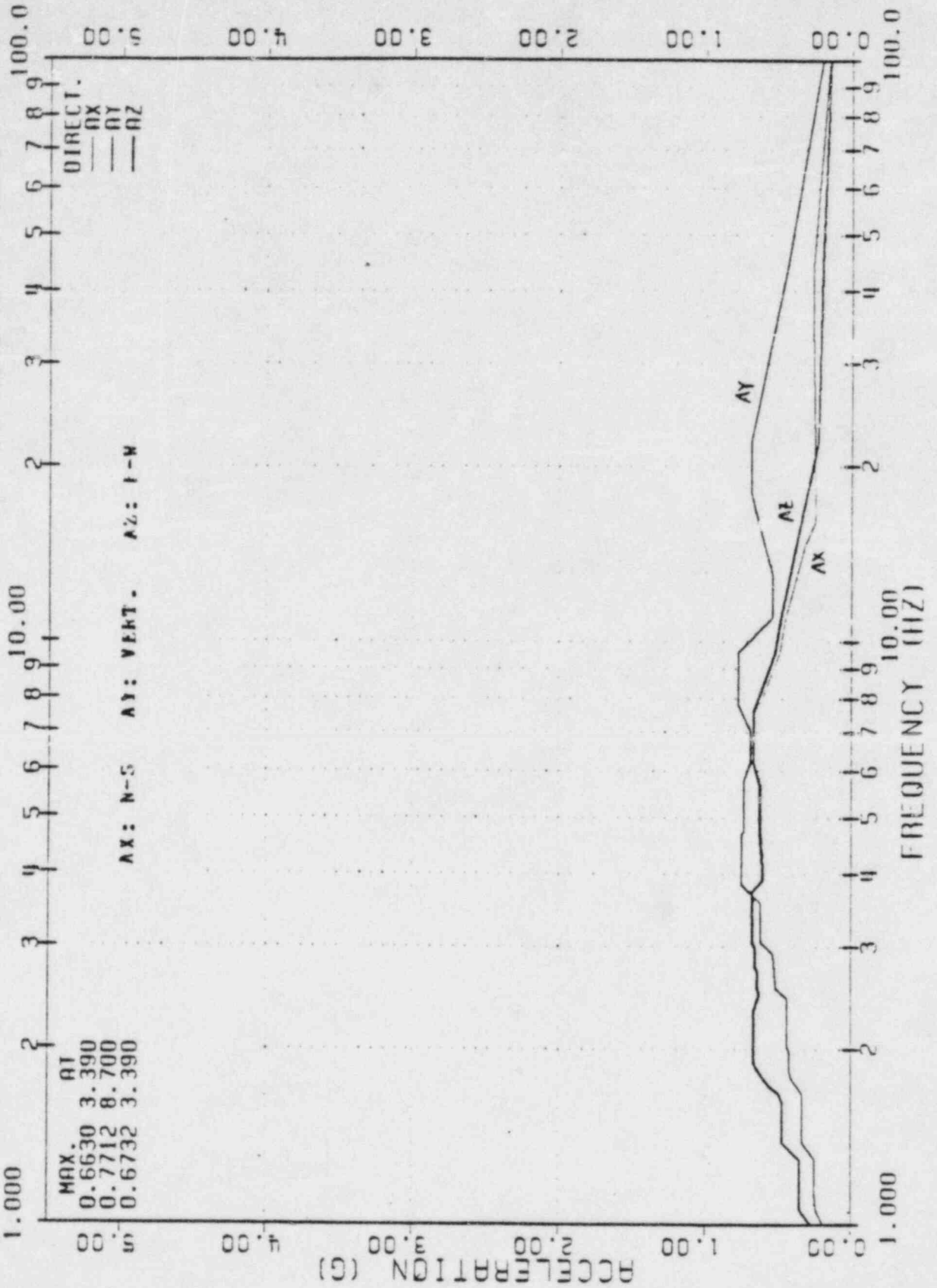
TUSI-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STR

FLOOR RESPONSE SPECTRA FOR SSE;

FIGURE NO. 1351-B

DAMPING = 0.02

AT ELEVATION 755.00



TUSI-S.W. INTAKE STR.

REFINED RESPONSE SPECTRA

GIBBS & HILL, INC.

ENGINEERS, DESIGNERS, CONSTRUCTORS

JOB NO. 2323

FIGURE-1351-B

ISSUE NO. DATE PLT. CHG. BY: APPR. BY: DATE

ISSUED FOR

AT ELEVATION	038.00
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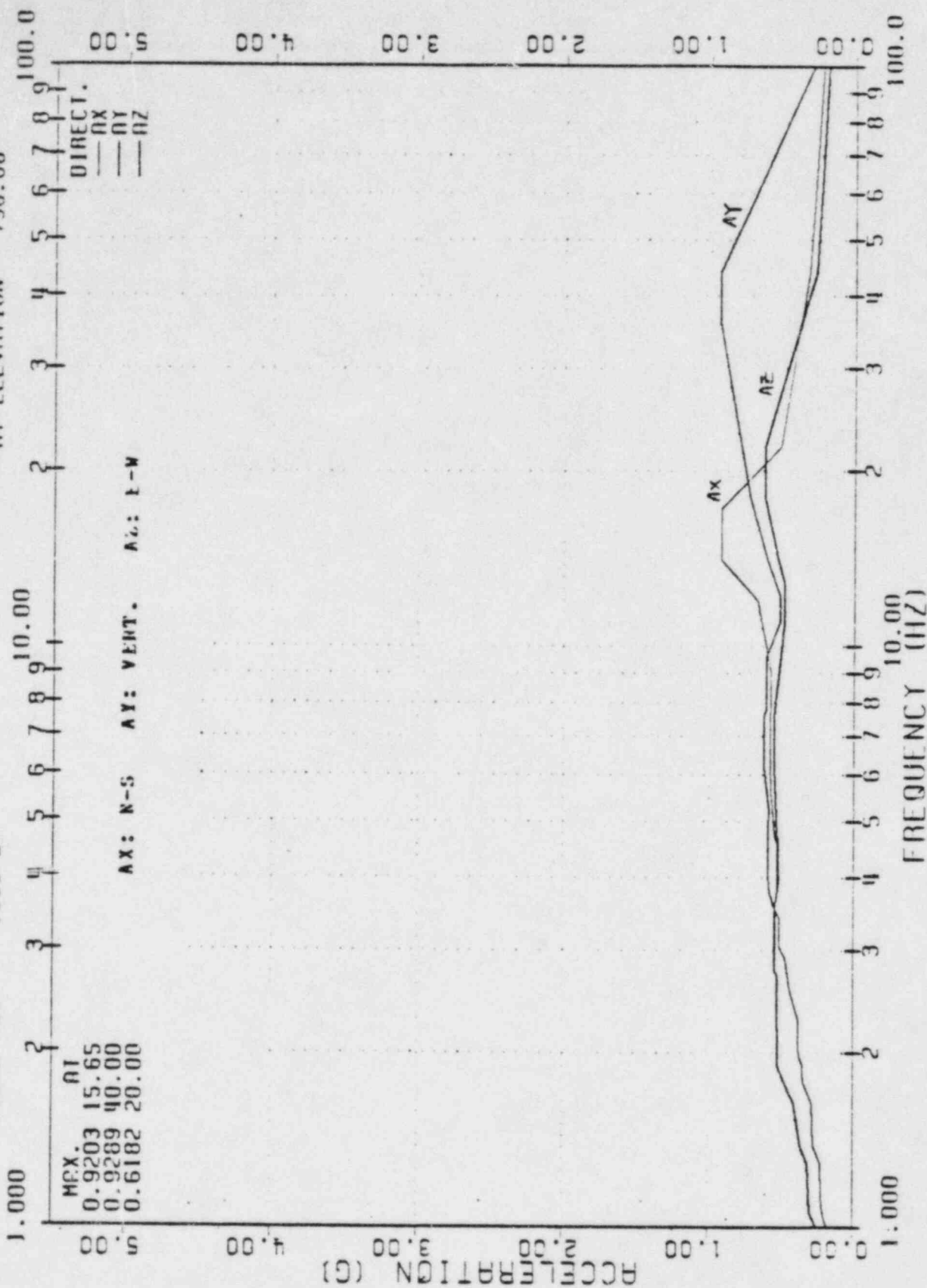
TUSI-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STR

FLOOR RESPONSE SPECTRA FOR SSE:

FIGURE NO. 1353-B

DAMPING = 0.03

AT ELEVATION 796.00



TUSI-S.W. INTAKE STR.

REFINED RESPONSE SPECTRA

GIBBS & HILL, INC.

ENGINEERS, DESIGNERS, CONSTRUCTORS

NEW YORK

JOB NO. 2323

FIGURE-1353-B

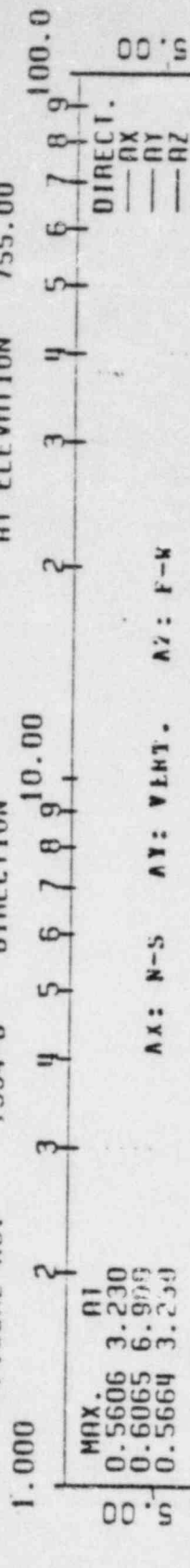
TUSI-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STR

FLOOR RESPONSE SPECTRA FOR SSE;

DAMPING = 0.03

AT ELEVATION 755.00

FIGURE NO. 1354-B DIRECTION



TUSI-S.W. INTAKE STR.

REFINED RESPONSE SPECTRA

GIBBS & HILL, INC.
ENGINEERS, DESIGNERS, CONSTRUCTORS

JOB NO. 2525

FIGURE-1354-B

12/28/68 DATE PLTD. CHAS. J. GIBBS

12/28/68 DATE PLTD. CHAS. J. GIBBS

ISSUED FOR

TUST-RITFIND RESPONSE SPCIRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPCIRA FOR 1/2SSE; COMPONENT AX ; DAMPING = 0.01 FIGURE NO. 135B-B DIRECTION 1 AT ELEVATION 838.00									
BROADBAND SPCIRUM FOR MODE=135B	FIGURE NO.	135B-B	DIRECTION	1	DEGREE OF FREEDOM =	1	NUMBER OF GRIDS =	33	DAMPING VALUE =
1	0.9000	0.12800	2	0.9450	0.13340	3	1.0098	0.13340	0.010
5	1.1250	0.18950	6	1.3056	0.18950	7	1.3860	0.28760	0.18300
9	1.1280	0.31130	10	1.8360	0.37200	11	1.8990	0.38700	0.28760
13	2.3870	0.38460	14	2.4383	0.37470	15	2.5242	0.37470	0.38530
17	2.9966	0.38530	18	3.0510	0.43000	19	3.7290	0.43000	0.35670
21	4.1465	0.35670	22	4.3920	0.39030	23	4.7340	0.41870	0.41870
25	6.2100	0.55810	26	8.8265	0.55816	27	9.0400	0.56970	0.86290
29	14.0850	1.83130	30	17.2150	1.83130	31	22.0000	0.60660	0.25700
33	110.0000	0.16920							

TUST-RITFIND RESPONSE SPCIRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPCIRA FOR 1/2SSE; COMPONENT AY ; DAMPING = 0.01 FIGURE NO. 135B-B DIRECTION 2 AT ELEVATION 838.00									
BROADBAND SPCIRUM FOR MODE=135B	FIGURE NO.	135B-B	DIRECTION	2	DEGREE OF FREEDOM =	2	NUMBER OF GRIDS =	35	DAMPING VALUE =
1	1.0000	0.10967	2	1.0103	0.10967	3	1.0620	0.15110	0.010
5	1.2908	0.15510	6	1.3060	0.23200	7	1.6940	0.23200	0.15510
9	1.7280	0.23070	10	1.7820	0.26680	11	1.8360	0.29570	0.23070
13	2.3210	0.29630	14	2.3469	0.28270	15	2.4651	0.28270	0.29570
17	2.9292	0.33050	18	3.0510	0.43670	19	3.6383	0.43670	0.33850
21	4.6860	0.57520	22	4.7562	0.52860	23	5.7860	0.52860	0.57520
25	6.4431	0.45640	26	6.9210	0.50240	27	7.8300	0.60410	0.45640
29	11.0000	0.37570	30	12.0650	0.37570	31	14.0850	0.63960	0.60410
33	36.0000	1.44790	34	44.790	1.44790	35	110.0000	0.14730	0.88090

TUST-RITFIND RESPONSE SPCIRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPCIRA FOR 1/2SSE; COMPONENT AZ ; DAMPING = 0.01 FIGURE NO. 135B-B DIRECTION 3 AT ELEVATION 838.00									
BROADBAND SPCIRUM FOR MODE=135B	FIGURE NO.	135B-B	DIRECTION	3	DEGREE OF FREEDOM =	3	NUMBER OF GRIDS =	32	DAMPING VALUE =
1	0.9000	0.12780	2	0.9450	0.13350	3	1.0098	0.13350	0.010
5	1.1250	0.18890	6	1.3055	0.18890	7	1.3866	0.28680	0.18370
9	1.1280	0.31160	10	1.8360	0.36880	11	1.8990	0.38350	0.28680
13	2.3870	0.38140	14	2.4481	0.36950	15	2.5279	0.36950	0.38350
17	2.9939	0.37680	18	3.0510	0.42290	19	3.7290	0.42290	0.37680
21	4.3920	0.35710	22	4.7340	0.38520	23	5.3586	0.38520	0.48670
25	6.5900	0.48670	26	8.6643	0.41400	27	12.1550	0.41400	0.68090
29	18.0000	1.04280	30	22.0000	1.04280	31	44.0000	0.29110	0.11910

TUST-RITFIND RESPONSE SPCIRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPCIRA FOR 1/2SSE; COMPONENT AX ; DAMPING = 0.01 FIGURE NO. 135B-B DIRECTION 1 AT ELEVATION 796.00									
BROADBAND SPCIRUM FOR MODE=135B	FIGURE NO.	135B-B	DIRECTION	1	DEGREE OF FREEDOM =	1	NUMBER OF GRIDS =	32	DAMPING VALUE =
1	0.9000	0.13320	2	0.9450	0.13910	3	1.0097	0.13910	0.010
5	1.1250	0.19720	6	1.3058	0.19720	7	1.3860	0.29870	0.19160
9	1.1280	0.32400	10	1.8360	0.38390	11	1.8990	0.39890	0.29870

13	2.3870	0.39710	14	2.4507	0.38400	15	2.5296	0.38400	16	2.5180	0.39020
17	2.9952	0.39020	18	3.0510	0.43640	19	3.1290	0.43640	20	3.0719	0.35410
21	4.1948	0.35410	22	4.3920	0.37260	23	4.7340	0.39940	24	5.3608	0.39940
25	6.2100	0.50100	26	11.3826	0.50100	27	11.9970	0.51650	28	14.0850	0.93580
29	17.2150	0.93580	30	22.0000	0.35700	31	44.0000	0.20616	32	110.0000	0.11460

JUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AY ; DAMPING = 0.01
 FIGURE NO. 1359-B DIRECTION 2 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR NODE=1359											
1	1.0000	0.10757	2	1.0097	0.10757	3	1.0620	0.10690	4	1.1250	0.15100
5	1.2911	0.15100	6	1.3860	0.22540	7	1.7274	0.22540	8	1.7280	0.22590
9	1.7820	0.26000	10	1.8360	0.28880	11	2.2440	0.28880	12	2.3210	0.23330
13	2.3484	0.27110	14	2.4583	0.27110	15	2.5380	0.33110	16	2.9385	0.33110
17	3.0510	0.42470	18	3.6396	0.42470	19	3.3440	0.55990	20	4.6860	0.55990
21	4.7529	0.51610	22	5.7860	0.51610	23	6.1730	0.44890	24	6.4572	0.44890
25	6.9210	0.48940	26	7.8300	0.62550	27	9.5700	0.62550	28	11.0000	0.36360
29	12.5032	0.36360	30	14.0850	0.50280	31	18.0000	0.69770	32	36.0000	0.87430
33	44.0000	0.87430	34	110.0000	0.11460						

JUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AZ ; DAMPING = 0.01
 FIGURE NO. 1359-B DIRECTION 3 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR NODE=1359											
1	0.9000	0.13440	2	0.9450	0.14040	3	1.0097	0.14040	4	1.0620	0.19300
5	1.1250	0.19830	6	1.3056	0.19830	7	1.3860	0.30100	8	1.7073	0.30100
9	1.7280	0.32590	10	1.8360	0.38520	11	1.8990	0.40020	12	2.3210	0.40020
13	2.3470	0.39840	14	2.4547	0.38440	15	2.5298	0.38440	16	2.5380	0.39040
17	2.9934	0.39040	18	3.0510	0.43890	19	3.7290	0.43890	20	3.8596	0.36190
21	4.3920	0.36190	22	4.7340	0.38870	23	5.4223	0.38870	24	6.2100	0.47210
25	7.5900	0.47210	26	9.1514	0.36210	27	13.0267	0.36210	28	14.0850	0.41730
29	18.0000	0.56450	30	22.0000	0.56450	31	44.0000	0.19260	32	110.0000	0.09130

JUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AX ; DAMPING = 0.01
 FIGURE NO. 1360-B DIRECTION 1 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR NODE=1360											
1	0.9000	0.13850	2	0.9450	0.14480	3	1.0098	0.14480	4	1.0620	0.010
5	1.1250	0.20480	6	1.3059	0.20480	7	1.3860	0.30980	8	1.7081	0.19930
9	1.7280	0.33470	10	1.8360	0.39560	11	1.8990	0.41080	12	2.3210	0.30980
13	2.3470	0.40940	14	2.4615	0.39320	15	2.5353	0.39320	16	2.5380	0.39510
17	2.9937	0.39510	18	3.0510	0.44280	19	3.7290	0.44280	20	3.8742	0.35690
21	4.3920	0.35690	22	4.7340	0.38230	23	5.5165	0.38230	24	6.2100	0.44560
25	7.5900	0.44560	26	9.1514	0.29870	27	11.0000	0.29870	28	14.0850	0.18220
29	15.3977	0.14600	30	18.0000	0.14600	31	36.0000	0.15830	32	44.0000	0.15830
33	110.0000	0.06570									

JUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AY ; DAMPING = 0.01
 FIGURE NO. 1360-B DIRECTION 2 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR NODE=1360											
1	1.0000	0.10757	2	1.0097	0.10757	3	1.0620	0.10690	4	1.1250	0.15100
5	1.2913	0.15100	6	1.3860	0.21910	7	1.7251	0.21910	8	1.7280	0.22150

9	1.7050	0.25360	10	1.8360	0.28240	11	2.2440	0.28240	12	2.3210	0.27290
13	2.3528	0.26070	14	2.4516	0.26070	15	2.5380	0.32410	16	2.9377	0.32410
17	3.0510	0.41330	18	3.6413	0.41330	19	3.8340	0.54500	20	4.6860	0.54500
21	4.7512	0.50420	22	5.7860	0.50420	23	6.1613	0.44180	24	6.4709	0.44180
25	6.9210	0.47710	26	7.8300	0.60190	27	9.5700	0.60740	28	11.0000	0.35290
29	13.4219	0.35290	30	14.0850	0.20770	31	16.0000	0.53020	32	22.0000	0.53020
33	44.0000	0.3460	34	110.0000	0.08250						

JUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/25SE ; COMPONENT A7 ; DAMP:RG = 0.01
 FIGURE NO. 1360-B DIRECTION 3 AT ELEVATION 755.00

SET NO. = 9
 NO. OF SPECTRA = 1

BROADENED SPECTRUM FOR MODE=1360											
1	0.9000	0.14220	2	0.9450	0.14840	3	1.0097	0.14840	4	1.0620	0.20320
5	1.1250	0.20880	6	1.3054	0.20880	7	1.3860	0.31740	8	1.7080	0.31740
9	1.7280	0.34250	10	1.8360	0.40380	11	1.8990	0.41910	12	2.3210	0.41910
13	2.3870	0.41760	14	2.4604	0.40160	15	2.5350	0.40160	16	2.5380	0.40370
17	2.9918	0.40370	18	3.0510	0.45450	19	3.7290	0.45450	20	3.8735	0.36660
21	4.3920	0.36660	22	4.7340	0.39200	23	5.5010	0.39200	24	6.2100	0.45790
25	7.5900	0.45790	26	9.5700	0.31280	27	11.0000	0.31150	28	17.2150	0.17060
29	22.0000	0.11300	30	44.0000	0.10880	31	110.0000	0.06540			

DAMPING VALUE =

NUMBER OF GRIDS = 31

DEGREE OF FREEDOM =

JUST-RIFTED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AX ; DAMPING = 0.02
FIGURE NO. 1361-B DIRECTION 1 AT ELEVATION 838.00

BROADBAND SPECTRUM FOR MODE-1361	DEGREE OF FREEDOM =	NUMBER OF GRIDS =	DAMPING VALUE =	SET NO. =
1 0.9040 0.12000 2	0.9450 0.12470	3 1.0038 0.12470	4 1.0620 0.15910	1
5 1.2924 0.15910 6	1.3860 0.21370	7 1.6015 0.21370	8 1.6830 0.22810	1
9 1.7280 0.25440 10	1.8360 0.29140	11 1.8990 0.30410	12 2.3210 0.30410	1
13 2.4750 0.29120 14	2.4852 0.29120	15 2.5380 0.30580	16 2.7426 0.30580	1
17 2.7170 0.31040 18	3.0058 0.31040	19 3.0510 0.31700	20 4.2763 0.31700	1
21 4.7340 0.34140 22	6.2100 0.40410	23 7.7426 0.40410	24 9.0000 0.44220	1
25 11.9970 0.69930 26	14.0850 1.36930	27 17.2150 1.36930	28 22.0000 0.53220	1
29 110.0000 0.23330 30	110.0000 0.16920			1

JUST-RIFTED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AY ; DAMPING = 0.02
FIGURE NO. 1361-B DIRECTION 2 AT ELEVATION 838.00

BROADBAND SPECTRUM FOR MODE-1361	DEGREE OF FREEDOM =	NUMBER OF GRIDS =	DAMPING VALUE =	SET NO. =
1 0.9040 0.09490 2	0.9990 0.09510	3 1.0620 0.12960	4 1.1250 0.13440	2
5 1.2982 0.13440 6	1.3860 0.17810	7 1.6871 0.17810	8 1.7820 0.21850	2
9 1.8360 0.22430 10	2.0250 0.23170	11 2.4391 0.23170	12 2.5380 0.27410	2
13 2.9070 0.26760 14	3.0510 0.33100	15 3.5533 0.33100	16 3.8340 0.40380	2
17 4.6860 0.40380 18	4.7366 0.49350	19 5.7860 0.49350	20 6.6136 0.51280	2
21 7.0897 0.37280 22	7.8300 0.41650	23 9.5700 0.41650	24 10.6518 0.32660	2
25 11.9970 0.32660 26	14.0850 0.41620	27 36.0000 1.06280	28 44.0000 1.06280	2
29 110.0000 0.14730				2

JUST-RIFTED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AZ ; DAMPING = 0.02
FIGURE NO. 1361-B DIRECTION 3 AT ELEVATION 838.00

BROADBAND SPECTRUM FOR MODE-1361	DEGREE OF FREEDOM =	NUMBER OF GRIDS =	DAMPING VALUE =	SET NO. =
1 0.9040 0.11990 2	0.9450 0.12490	3 1.0044 0.12490	4 1.0620 0.15870	3
5 1.2925 0.15870 6	1.3860 0.21270	7 1.6059 0.21270	8 1.6830 0.22580	3
9 1.7280 0.25290 10	1.8360 0.26940	11 1.8990 0.30230	12 2.3210 0.30230	3
13 2.4750 0.26820 14	2.5004 0.28820	15 2.5380 0.29780	16 2.7372 0.29780	3
17 2.7170 0.30320 18	2.9823 0.30320	19 3.0510 0.31380	20 3.7290 0.31380	3
21 3.8507 0.29310 22	4.0950 0.29310	23 5.6250 0.32620	24 6.2100 0.35320	3
25 7.5900 0.35320 26	8.7846 0.32060	27 9.0000 0.32060	28 11.9970 0.32400	3
29 14.0850 0.52330 30	18.0000 0.71220	31 22.0000 0.71220	32 44.0000 0.23210	3
33 110.0000 0.11910				3

JUST-RIFTED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AX ; DAMPING = 0.02
FIGURE NO. 1362-B DIRECTION 1 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR MODE-1362	DEGREE OF FREEDOM =	NUMBER OF GRIDS =	DAMPING VALUE =	SET NO. =
1 0.9040 0.12490 2	0.9450 0.13010	3 1.0043 0.13010	4 1.0620 0.16570	4
5 1.2924 0.16570 6	1.3860 0.22190	7 1.6074 0.22190	8 1.6830 0.23530	4
9 1.7280 0.26280 10	1.8360 0.30080	11 1.8990 0.31430	12 2.3210 0.31430	4
13 2.4750 0.29950 14	2.5017 0.29950	15 2.5380 0.30920	16 2.7379 0.30920	4

17	2.7120	0.31470	18	2.9952	0.31470	19	3.0510	0.32310	20	3.7290	0.32310
21	3.8646	0.29970	22	4.0950	0.29970	23	6.2100	0.36410	24	7.5900	0.36410
25	8.3699	0.33360	26	9.0000	0.33360	27	11.9970	0.42040	28	14.0850	0.70630
29	17.2150	0.70630	30	22.0000	0.31300	31	44.0000	0.18520	32	110.0000	0.11460

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/25SE; COMPONENT AY; DAMPING = 0.02
 FIGURE NO. 1362-B DIRECTION 2 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR MODE=1362											
1	0.9000	0.09280	2	0.9930	0.09300	3	1.0620	0.12550	4	1.1250	0.13030
5	1.2985	0.13030	6	1.3860	0.17370	7	1.6740	0.17770	8	1.7820	0.21170
9	1.8360	0.21950	10	2.0250	0.22690	11	2.4408	0.22690	12	2.5380	0.26483
13	2.9070	0.28040	14	3.0510	0.32350	15	3.5559	0.32350	16	3.8340	0.39140
17	4.6860	0.39140	18	4.7355	0.38230	19	5.7860	0.38230	20	6.7019	0.36040
21	7.0591	0.36040	22	7.8300	0.40500	23	9.5700	0.40500	24	10.9735	0.28590
25	11.9970	0.28590	26	14.0850	0.37830	27	18.0000	0.47160	28	36.0000	0.64790
29	44.0000	0.64790	30	110.0000	0.11460						

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/25SE; COMPONENT AZ; DAMPING = 0.02
 FIGURE NO. 1362-B DIRECTION 3 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR MODE=1362											
1	0.9000	0.12610	2	0.9450	0.13140	3	1.0045	0.13140	4	1.0620	0.16680
5	1.2928	0.16680	6	1.3860	0.22300	7	1.6102	0.22300	8	1.6830	0.23570
9	1.7200	0.26470	10	1.8360	0.30250	11	1.8990	0.31610	12	2.3210	0.31610
13	2.4750	0.30080	14	2.5089	0.30080	15	2.5300	0.30830	16	2.7363	0.30830
17	2.7720	0.31410	18	2.9849	0.31410	19	3.0510	0.32430	20	3.7290	0.32430
21	3.8689	0.29900	22	4.0950	0.29900	23	4.7340	0.31090	24	6.2100	0.34230
25	7.5900	0.34230	26	9.5700	0.27940	27	11.0000	0.27940	28	12.6535	0.27930
29	14.0850	0.33080	30	18.0000	0.42730	31	22.0000	0.42730	32	44.0000	0.16110
33	110.0000	0.09130									

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/25SE; COMPONENT AX; DAMPING = 0.02
 FIGURE NO. 1363-B DIRECTION 1 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR MODE=1363											
1	0.9000	0.12080	2	0.9450	0.13540	3	1.0047	0.13540	4	1.0620	0.17220
5	1.2932	0.17220	6	1.3860	0.23010	7	1.6137	0.23010	8	1.6830	0.24240
9	1.7280	0.27120	10	1.7820	0.29110	11	1.8360	0.31020	12	1.8990	0.32440
13	2.3210	0.32040	14	2.4750	0.30780	15	2.5190	0.30780	16	2.5380	0.31270
17	2.7345	0.31270	18	2.7720	0.31900	19	2.9852	0.31900	20	3.0510	0.32910
21	3.7290	0.32910	22	3.9047	0.29630	23	4.0950	0.29630	24	4.7340	0.30420
25	6.2100	0.32530	26	7.5900	0.32530	27	9.5700	0.24950	28	11.0000	0.22680
29	14.6630	0.15220	30	15.5227	0.11960	31	18.0000	0.11960	32	36.0000	0.14200
33	44.0000	0.14200									

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/25SE; COMPONENT AY; DAMPING = 0.02
 FIGURE NO. 1363-B DIRECTION 2 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR MODE=1363											
1	0.9000	0.09080	2	0.9930	0.09100	3	1.0620	0.12150	4	1.1250	0.12630
5	1.2985	0.12630	6	1.3860	0.16950	7	1.6755	0.16950	8	1.7820	0.20540
9	1.8360	0.21510	10	1.9802	0.21510	11	2.0250	0.22240	12	2.4408	0.22240

13	2.5380	0.25600	14	2.9070	0.27360	15	3.0510	0.31630	16	3.5583	0.31630
17	3.8340	0.37950	18	4.6860	0.37950	19	4.7346	0.37150	20	5.7860	0.37150
21	6.1919	0.34870	22	7.0298	0.34870	23	7.8300	0.39430	24	9.5700	0.39430
25	11.0000	0.26930	26	12.8636	0.26930	27	14.0850	0.29570	28	18.0000	0.35210
29	22.0000	0.35210	30	44.0000	0.24310	31	110.0000	0.08250			

TUFT-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR 1/2SSE; COMPONENT AZ ; DAMPING = 0.02
 FIGURE NO. 1363-B DIRECTION 3 AT ELEVATION 755.00

SET NO. = 9

NO. OF SPECTRA = 1

BROADENED SPECTRUM FOR NODE=1363			DEGREE OF FREEDOM = 3			NUMBER OF GRIDS = 32			DAMPING VALUE = 0.020		
1	0.9000	0.11350	2	0.9450	0.13900	3	1.0046	0.13900	4	1.0620	0.17600
5	1.2930	0.17600	6	1.3860	0.23420	7	1.6132	0.23420	8	1.6830	0.24670
9	1.7280	0.27870	10	1.8360	0.31790	11	1.8990	0.33220	12	2.3210	0.33220
13	2.4750	0.31570	14	2.5173	0.31570	15	2.5389	0.32110	16	2.7348	0.32110
17	2.7720	0.32740	18	2.9874	0.32740	19	3.0510	0.33720	20	3.7290	0.33720
21	3.8962	0.30470	22	4.0950	0.30470	23	4.7340	0.31360	24	5.6929	0.31360
25	6.2100	0.33170	26	7.5900	0.33170	27	9.5700	0.25790	28	11.0000	0.23900
29	14.6630	0.18590	30	21.8310	0.10330	31	44.0000	0.10330	32	110.0000	0.06570

11	2.1120	0.63420	18	2.9945	0.63420	19	3.0510	0.65260	20	3.1290	0.65260
21	3.8628	0.60620	22	4.0950	0.60620	23	4.1340	0.64030	24	6.2100	0.72600
25	1.5300	0.12600	26	8.3178	0.66150	27	9.0000	0.66150	28	11.9970	0.82090
29	14.0050	1.08900	30	17.2150	1.08900	31	22.0000	0.55420	32	24.0000	0.33790
33	110.0000	0.21310									

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AX; DAMPING = 0.02
 FIGURE NO. 1350-B DIRECTION 2 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR MODE=1350-B											
1	0.9000	0.18130	2	0.9990	0.18430	3	1.0620	0.23890	4	1.1250	0.24850
5	1.2975	0.24850	6	1.3860	0.33230	7	1.6740	0.33230	8	1.7820	0.40800
9	1.8360	0.42400	10	1.9828	0.42400	11	2.0250	0.43870	12	2.4371	0.43870
13	2.5300	0.51390	14	2.9070	0.53650	15	3.0510	0.62590	16	3.5639	0.62590
17	3.8340	0.75840	18	4.6860	0.75840	19	4.7392	0.74020	20	5.7660	0.74020
21	6.6954	0.69940	22	7.0472	0.69940	23	7.8300	0.78860	24	9.5700	0.78860
25	10.9987	0.56320	26	11.9970	0.56320	27	14.0050	0.71010	28	18.0000	0.88520
29	36.0000	1.13050	30	44.0000	1.13050	31	110.0000	0.21170			

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AZ; DAMPING = 0.02
 FIGURE NO. 1350-B DIRECTION 3 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR MODE=1350-B											
1	0.9000	0.25220	2	0.9450	0.26280	3	1.0046	0.26280	4	1.0620	0.33340
5	1.2925	0.33340	6	1.3860	0.44710	7	1.6087	0.44710	8	1.6830	0.47420
9	1.7280	0.52940	10	1.8360	0.60640	11	1.8990	0.63370	12	2.3210	0.63370
13	2.4750	0.60300	14	2.5098	0.60300	15	2.5380	0.61790	16	2.7376	0.61790
17	2.7120	0.62940	18	2.9844	0.62940	19	3.0510	0.65000	20	3.1290	0.65000
21	3.8840	0.59460	22	4.0950	0.59460	23	4.7340	0.61810	24	6.2100	0.68390
25	7.5900	0.68390	26	9.5700	0.55940	27	11.0000	0.55480	28	13.0373	0.55480
29	14.0050	0.60090	30	18.0000	0.72550	31	22.0000	0.72550	32	44.0000	0.29540
33	110.0000	0.17700									

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AX; DAMPING = 0.02
 FIGURE NO. 1351-B DIRECTION 1 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR MODE=1351-B											
1	0.9000	0.25930	2	0.9450	0.27040	3	1.0047	0.27040	4	1.0620	0.34370
5	1.2926	0.34370	6	1.3860	0.46640	7	1.6207	0.46640	8	1.6830	0.49070
9	1.7280	0.54780	10	1.8360	0.62590	11	1.8990	0.65440	12	2.3210	0.65440
13	2.4750	0.62130	14	2.5204	0.62130	15	2.5300	0.63030	16	2.7342	0.63030
17	2.7120	0.64290	18	2.9845	0.64290	19	3.0510	0.66300	20	3.1290	0.66300
21	3.9066	0.59690	22	4.0950	0.59690	23	4.7340	0.61290	24	5.7616	0.61290
25	6.2100	0.64260	26	7.5900	0.64260	27	9.5700	0.49230	28	11.0000	0.49230
29	14.6630	0.31480	30	16.0000	0.24610	31	18.0000	0.24610	32	36.0000	0.26610
33	44.0000	0.26610	34	110.0000	0.13420						

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AZ; DAMPING = 0.02
 FIGURE NO. 1351-B DIRECTION 2 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR MODE=1351-B											
1	0.9000	0.17910	2	0.9990	0.18610	3	1.0620	0.23470	4	1.1250	0.24420
5	1.2956	0.24420	6	1.3860	0.32790	7	1.6740	0.32790	8	1.7820	0.40340

9	1.8368	0.41930	10	1.9799	0.41930	11	2.0250	0.43380	12	2.4423	0.43380
13	2.5300	0.50620	14	2.9070	0.50620	15	3.0510	0.61570	16	3.5502	0.61570
17	3.8340	0.74650	18	4.6860	0.74650	19	4.7358	0.73040	20	5.1860	0.73040
21	6.1912	0.68390	22	7.0363	0.68390	23	7.8300	0.77120	24	9.5700	0.77120
25	11.0000	0.53610	26	13.0819	0.53610	27	14.0850	0.57100	28	18.0000	0.57100
29	22.0000	0.67900	30	44.0000	0.43880	31	110.0000	0.16400			

FIGURE NO.	DIRECTION	AT ELEVATION	NO. OF SPECTRA	SET NO.
1351-B	3	755.00	1	9

BROADBAND SPECTRUM FOR MODE-13 ⁵ 1-B				DEGREE OF FREEDOM =	NUMBER OF GRIDS =	31	DAMPING VALUE =	0.020
1	0.9000	0.26670	2	0.9450	0.27780	3	1.0046	0.35160
5	1.2928	0.35160	6	1.3860	0.47130	7	1.6175	0.49570
9	1.1280	0.55310	10	1.8360	0.63480	11	1.8990	0.66330
13	2.4750	0.63030	14	2.5186	0.63030	15	2.5380	0.64100
17	2.7120	0.65360	18	2.9873	0.65360	19	3.0510	0.67320
21	3.9067	0.60580	22	4.0950	0.60580	23	4.7340	0.62350
25	6.2100	0.66290	26	7.5900	0.66290	27	9.5700	0.67810
29	22.0000	0.22550	30	44.0000	0.19820	31	110.0000	0.13270

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPECTRA FOR SSE ; COMPONENT AX ; DAMPING = 0.03 FIGURE NO. 1352-B DIRECTION 1 AT ELEVATION 838.00										SET NO. = 1
BROADBAND SPECTRUM FOR MODE=1352										NO. OF SPECTRA = 1
FIGURE NO.	1352-B	DIRECTION	1	AT ELEVATION	838.00	NUMBER OF GRIDS = 30	DAMPING VALUE =	0.030		
1	0.9000	0.22460	2	0.9450	0.23520	3	0.9990	0.23660	4	1.0620
5	1.2870	0.29410	6	1.3860	0.34550	7	1.6380	0.38880	8	1.6830
9	1.8990	0.49960	10	2.0611	0.49960	11	2.2500	0.51450	12	2.7094
13	2.7720	0.53910	14	3.3880	0.53940	15	3.5730	0.53630	16	4.0730
17	4.0950	0.53010	18	4.4760	0.53810	19	4.340	0.57980	20	5.6250
21	6.2100	0.64550	22	7.1588	0.64550	23	7.8300	0.70360	24	9.0000
25	11.9970	1.08090	26	14.0850	1.69810	27	17.2150	1.69810	28	22.0000
29	44.0000	0.40990	30	110.0000	0.29930					0.84320

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPECTRA FOR SSE ; COMPONENT AY ; DAMPING = 0.03 FIGURE NO. 1352-B DIRECTION 2 AT ELEVATION 838.00										SET NO. = 2
BROADBAND SPECTRUM FOR MODE=1352										NO. OF SPECTRA = 1
FIGURE NO.	1352-B	DIRECTION	2	AT ELEVATION	838.00	NUMBER OF GRIDS = 36	DAMPING VALUE =	0.030		
1	0.9000	0.17210	2	0.9990	0.17720	3	1.0620	0.20720	4	1.1250
5	1.1970	0.22060	6	1.2870	0.22550	7	1.3860	0.27390	8	1.6380
9	1.6830	0.30390	10	1.7820	0.34340	11	1.8360	0.34930	12	1.9156
13	1.9530	0.36870	14	2.0250	0.38120	15	2.3027	0.38120	16	2.4300
17	2.5380	0.44020	18	2.9070	0.47620	19	3.0510	0.51110	20	3.4163
21	3.6000	0.56380	22	3.8380	0.59880	23	4.0950	0.60220	24	5.0050
25	5.0674	0.59090	26	5.0111	0.59090	27	6.2100	0.63160	28	7.5900
29	7.7814	0.61540	30	9.5700	0.61540	31	10.4810	0.56140	32	11.9970
33	14.0050	0.73180	34	36.0000	1.49280	35	44.0000	0.56140	36	110.0000

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPECTRA FOR SSE ; COMPONENT AZ ; DAMPING = 0.03 FIGURE NO. 1352-B DIRECTION 3 AT ELEVATION 838.00										SET NO. = 3
BROADBAND SPECTRUM FOR MODE=1352										NO. OF SPECTRA = 1
FIGURE NO.	1352-B	DIRECTION	3	AT ELEVATION	838.00	NUMBER OF GRIDS = 30	DAMPING VALUE =	0.030		
1	0.9000	0.22380	2	0.9450	0.23470	3	0.9990	0.23570	4	1.0620
5	1.2870	0.29340	6	1.3860	0.34420	7	1.6830	0.40850	8	1.7820
9	1.8990	0.49520	10	2.1108	0.49520	11	2.2500	0.50320	12	2.3400
13	2.7796	0.50510	14	2.7720	0.52580	15	2.9070	0.52610	16	3.5530
17	3.7504	0.51000	18	4.5911	0.51000	19	4.7340	0.52900	20	5.6250
21	6.2100	0.56760	22	7.5900	0.56760	23	8.5227	0.54320	24	9.0000
25	11.9970	0.58240	26	14.0850	0.79320	27	18.0000	1.05860	28	22.0000
29	44.0000	0.36740	30	110.0000	0.22430					1.05860

TUST-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; FLOOR RESPONSE SPECTRA FOR SSE ; COMPONENT AX ; DAMPING = 0.03 FIGURE NO. 1353-B DIRECTION 1 AT ELEVATION 796.00										SET NO. = 4
BROADBAND SPECTRUM FOR MODE=1353										NO. OF SPECTRA = 1
FIGURE NO.	1353-B	DIRECTION	1	AT ELEVATION	796.00	NUMBER OF GRIDS = 30	DAMPING VALUE =	0.030		
1	0.9000	0.23340	2	0.9450	0.24470	3	0.9990	0.24600	4	1.0620
5	1.2870	0.30540	6	1.3860	0.35800	7	1.6380	0.40160	8	1.6830
9	1.7820	0.44070	10	1.8990	0.51740	11	2.1072	0.51740	12	2.2500
13	2.7207	0.52680	14	2.7720	0.54840	15	3.3730	0.54840	16	3.5530

17	3.7371	0.53090	18	4.5832	0.53090	19	4.7340	0.54920	20	5.6250	0.51260
21	6.2100	0.58110	22	7.5900	0.58110	23	7.7998	0.51300	24	9.0000	0.51300
25	11.9970	0.67220	26	14.0850	0.92030	27	17.2150	0.92030	28	22.0000	0.51050
29	44.0000	0.32140	30	110.0000	0.21310						

1001-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; DAMPING = 0.03
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AX ; DAMPING = 0.03
 FIGURE NO. 1353-B DIRECTION 2 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR MODE=1353											
1	0.9000	0.16950	2	0.9990	0.17460	3	1.0620	0.20610	4	1.1250	0.21310
5	1.2870	0.22080	6	1.3860	0.27120	7	1.6380	0.27950	8	1.7820	0.34060
9	1.8360	0.34620	10	1.9170	0.34620	11	1.9530	0.36350	12	2.0250	0.37580
13	2.2824	0.37580	14	2.5380	0.43230	15	2.9070	0.47220	16	3.0510	0.51080
17	3.4109	0.51080	18	3.6000	0.55700	19	3.8340	0.58730	20	4.0950	0.59220
21	5.0050	0.59220	22	5.0521	0.58360	23	5.2164	0.58360	24	6.2100	0.61860
25	7.5900	0.61860	26	7.7112	0.60480	27	9.5700	0.60480	28	11.0000	0.51020
29	12.2066	0.51020	30	14.0850	0.60110	31	18.0000	0.72150	32	36.0000	0.92890
33	44.0000	0.92890	34	110.0000	0.21170						

1001-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; DAMPING = 0.03
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AZ ; DAMPING = 0.03
 FIGURE NO. 1353-B DIRECTION 3 AT ELEVATION 796.00

BROADBAND SPECTRUM FOR MODE=1353											
1	0.9000	0.23470	2	0.9450	0.24600	3	0.9990	0.24710	4	1.0620	0.29500
5	1.2870	0.30770	6	1.3860	0.36030	7	1.6380	0.40310	8	1.6830	0.42880
9	1.7820	0.47280	10	1.8990	0.51920	11	2.1354	0.51920	12	2.2500	0.52570
13	2.3400	0.52610	14	2.7242	0.52610	15	2.7720	0.54620	16	2.9070	0.54650
17	3.5530	0.54650	18	3.9270	0.51260	19	3.9689	0.51260	20	4.0950	0.52120
21	4.6577	0.52120	22	4.7340	0.52950	23	6.2100	0.54970	24	7.5900	0.54970
25	11.0000	0.48110	26	12.8074	0.48110	27	14.0850	0.52480	28	18.0000	0.61820
29	22.0000	0.61820	30	44.0000	0.27160	31	110.0000	0.17700			

1001-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; DAMPING = 0.03
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AX ; DAMPING = 0.03
 FIGURE NO. 1354-B DIRECTION 1 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR MODE=1354											
1	0.9000	0.24220	2	0.9450	0.25410	3	0.9990	0.25520	4	1.0620	0.30390
5	1.2870	0.31640	6	1.3860	0.37040	7	1.6380	0.41420	8	1.6830	0.44390
9	1.7820	0.48950	10	1.8990	0.53750	11	2.1730	0.53750	12	2.2500	0.54160
13	2.7307	0.54160	14	2.7720	0.55990	15	2.9070	0.56060	16	3.5530	0.56060
17	3.9270	0.52240	18	4.0679	0.52240	19	4.0950	0.52400	20	5.0050	0.52400
21	5.0510	0.51960	22	5.7160	0.51960	23	7.5900	0.51080	24	11.0000	0.39680
25	14.6630	0.28000	26	16.1116	0.21230	27	18.0000	0.21230	28	36.0000	0.23850
29	44.0000	0.23850	30	110.0000	0.13420						

1001-REFINED RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ; DAMPING = 0.03
 FLOOR RESPONSE SPECTRA FOR SSE; COMPONENT AX ; DAMPING = 0.03
 FIGURE NO. 1354-B DIRECTION 2 AT ELEVATION 755.00

BROADBAND SPECTRUM FOR MODE=1354											
1	0.9000	0.16730	2	0.9990	0.17240	3	1.0620	0.20790	4	1.1250	0.21490
5	1.2870	0.27640	6	1.3860	0.26880	7	1.6380	0.27500	8	1.7820	0.33810
9	1.8360	0.34160	10	1.9190	0.34360	11	1.9530	0.35870	12	2.0250	0.37100
13	2.2865	0.37100	14	2.5380	0.42490	15	2.6460	0.43880	16	3.0510	0.50490

17	3.4050	4.50490	18	3.6000	0.55060	19	3.8340	0.57640	20	4.0950	0.58270
21	5.0050	0.58270	22	5.0349	0.57120	23	5.1700	0.57120	24	6.2100	0.60650
25	7.5900	0.60650	26	7.7519	0.59550	27	9.5700	0.59550	28	11.0000	0.48990
29	11.0901	0.48990	30	14.0850	0.48860	31	18.0000	0.55150	32	22.0000	0.55150
33	44.0000	0.37850	34	110.0000	0.16400						

SET NO. = 9

JUST-BEHELD RESPONSE SPECTRA FOR S. W. INTAKE STRUCTURE ;

FLOOR RESPONSE SPECTRA FOR SSI ; COMPONENT AZ ; DAMPING = 0.03

NO. OF SPECTRA = 1

AT ELEVATION 755.00

DIRECTION 3

BROADBAND SPECTRUM FOR MODE=1354		DEGREE OF FREEDOM =		NUMBER OF GRIDS = 25		DAMPING VALUE =	
FIGURE NO.	1354-R	3	11.0000	3	0.9990	4	1.0620
1	0.9000	0.24650	2	0.9450	0.25830	4	0.31160
5	1.2870	0.32420	6	1.3860	0.37050	8	1.7820
9	1.8990	0.54270	10	2.1624	0.54270	12	2.7305
13	2.7720	0.56610	14	2.9070	0.56640	16	3.9270
17	4.0358	0.52840	18	4.0950	0.53200	20	6.2100
21	7.5900	0.53230	22	11.0000	0.42070	24	44.0000
25	110.0000	0.13270					