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MFN 06-194

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Subject: **Seismic Models for the ESBWR Reactor/Fuel Building Complex (RBFB) and Control Building (CB)**

Enclosure 1 contains revised seismic models for the RBFB and CB as requested by the NRC for use in performing confirmatory analyses. An earlier version of this information was provided to the NRC during the Seismic Audit conducted during the week of June 5, 2006. Please see ReadMe.pdf in Enclosure 1 for a description of the data.

If you have any questions about the information provided here, please let me know.

Sincerely,

Kathy Sedney for

David H. Hinds
Manager, ESBWR

D068

Enclosure:

1. MFN 06-194 - Seismic Models for the ESBWR Reactor/Fuel Building Complex (RBFB) and Control Building (CB)

cc: WD Beckner USNRC (w/o enclosures)
AE Cubbage USNRC (with enclosures)
LA Dudes USNRC (w/o enclosures)
GB Stramback GE/San Jose (with enclosures)
eDRF 0000-0052-8280

ENCLOSURE 1

MFN 06-194

Seismic Models for the ESBWR Reactor/Fuel Building Complex (RBFB) and Control Building (CB)

File RBFB_Model.pdf: This file contains RBFB seismic model data.

File RBFB_Fix_1.txt: This files contains DAC3N input/output listing of fixed base eigenvalue analysis for the RBFB model including the RPV and vertical floor oscillators.

File RBFB_Fix_2.txt: This files contains DAC3N input/output listing of fixed base eigenvalue analysis for the RBFB model without the RPV and vertical floor oscillators.

File CB_Model.pdf: This file contains CB seismic model data.

File CB_Fix_1.txt: This files contains DAC3N input/output listing of fixed base eigenvalue analysis for the CB model including vertical floor oscillators.

File CB_Fix_2.txt: This files contains DAC3N input/output listing of fixed base eigenvalue analysis for the CB model without vertical floor oscillators.

Shimizu Engineering Report

Project	General Electric Company ESBWR Project	Shimizu Document No.	SER-ESB-023
Title	Revised Reactor/Fuel Building Complex Stick Model	Rev.	0
		Issued Date	6/22/06
		Revised Date	

NOTE:

This document provides the revised Reactor/Fuel Building Complex (RBFB) stick model in response to NRC's Audit comment on RAI 3.7-36.

The following are revised portions from the original DCD model.

1) Add vertical shear spring to consider the vertical coupling of walls through the upper pool deep girders.
2) Add vertical shear springs to consider the vertical coupling of walls through the floor slabs.

Tables 1 through 13 and Figures 1 and 4 show the model properties. The above revised portion is included in Table 1.

Appendix A shows evaluation of vertical shear spring.
Appendix B shows eigenvalue analysis results.
Appendix C shows additional information requested by NRC for the preparation of SASSI model.

In addition, the revised model properties in DAC3N text format are provided separately as follows.

1) RPV and floor oscillators are modeled as it is. (final seismic analysis model)
2) RPV and floor oscillators are eliminated. RPV weights are added to No.711 and floor oscillators weights are added to the nodes which they are attached to. (This model is used for the eigenvalue analysis in Appendix B)

0	6/22/06	Initial Issue	Y.O.	M.T	S.O
Rev.	Date	Note	Approve	Review	Prepare

Shimizu Corporation	Prepared by	S. Oguri	6/22/06
	Reviewed by	M. Takeda	6/22/06
	Approved by	Y. Orito	6/22/06

Table 1 Seismic Model Properties of RBFB

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Center of Gravity (m)		Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Center of Rigid (m)		Centroid (m)		Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	Gx	Gy	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Rx	Ry	Cx	Cy	No.
52.40	110	89647.0	45866.9	3.827E+07	4.396E+07	8.652E+07	23.5	23.5												
									1110	168.2	94.2	78.0	25791	60544	172303	23.5	24.4	23.5	23.7	1
34.00	109	94758.2	90015.7	5.471E+07	6.001E+07	1.133E+08	23.2	23.7												
									1109	192.0	98.0	98.0	35575	62966	377639	23.5	23.3	23.5	23.4	1
27.00	108	133260.3	138002.8	4.871E+07	7.087E+07	1.203E+08	27.0	22.0												
									1108	288.7	159.6	138.3	48517	114040	133785	32.3	23.5	36.7	26.1	1
22.50	107	69716.8	41669.4	3.248E+07	5.600E+07	9.404E+07	42.7	23.5												
									1107	341.8	182.3	170.4	62057	111908	183273	40.0	24.3	40.1	26.0	1
17.50	106	68973.5	56857.1	3.483E+07	4.996E+07	8.659E+07	29.8	23.4												
									1106	367.3	182.3	196.0	70827	120402	205645	34.8	24.3	33.2	25.6	1
13.57	105	64642.8	59622.0	3.076E+07	5.007E+07	8.033E+07	30.5	23.8												
									1105	369.4	184.4	196.0	70827	121793	206826	34.8	24.0	33.2	25.5	1
9.06	104	69170.6	63626.0	3.365E+07	5.239E+07	8.551E+07	30.5	23.4												
									1104	359.5	179.7	190.8	68957	118581	197161	35.7	24.7	33.5	25.7	1
4.65	103	120750.9	62052.8	4.984E+07	8.875E+07	1.377E+08	40.3	22.9												
									1103	658.9	325.9	356.6	141520	275431	331057	42.9	24.6	39.9	26.7	1
-1.00	102	155667.6	134779.8	6.132E+07	1.104E+08	1.706E+08	40.9	25.1												
									1102	665.9	324.4	366.7	142687	274711	331852	42.9	24.7	40.1	26.7	1
-6.40	101	163726.8	153607.2	6.451E+07	1.174E+08	1.807E+08	41.6	24.9												
									1101	723.1	368.0	416.4	161323	293436	470831	41.7	23.6	39.6	25.3	1
-11.50	2	329397.2	355365.4	8.111E+07	1.266E+08	2.070E+08	43.8	25.8												
									1021	3430.0	3430.0	3430.0	686286	1400583	1553759	34.0	23.5	34.0	23.5	2
-15.50	1	161457.5	161457.5	3.230E+07	6.593E+07	9.823E+07	34.0	23.5												

Elem. No.	SA (m²)	SB (m²)	SC (m²)	IBB (m⁴)	ICC (m⁴)	IAA (m⁴)
9999	Rigid	0.1	Rigid	Rigid	0.1	0.1

		Shear Spring (kN/m)
Floor Vertical Spring	General	1.366E+07
	Pool Girder	6.772E+07
	SP Slab	6.762E+06
	DF Slab*	9.030E+05

* : This model property was provided by HITACHI in "GESZ-SR3-2006-0011".

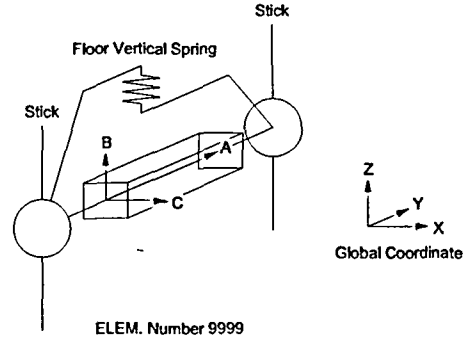


Table 2 Seismic Model Properties of RCCV (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Center of Gravity (m)		Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Center of Rigid (m)		Centroid (m)		Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	Gx	Gy	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Rx	Ry	Cx	Cy	No.
34.00	209	70324.8	49036.4	1.062E+07	3.916E+06	2.234E+07	23.3	23.5												
									1209	118.4	118.4	118.4	13507	13507	5637	23.5	23.5	23.5	23.5	
27.00	208	197215.7	176676.9	3.159E+07	3.555E+07	5.943E+07	25.2	23.5												1
									1208	176.7	88.4	88.4	31983	31983	63790	23.5	23.5	23.5	23.5	
17.50	206	79941.3	61186.7	2.019E+07	1.943E+07	3.918E+07	24.9	23.5												1
									1206	224.3	112.2	112.2	40599	40599	80973	23.5	23.5	23.5	23.5	
13.57	205	39686.7	34665.9	1.150E+07	1.148E+07	1.690E+07	23.4	23.5												1
									1205	238.8	119.4	119.4	43216	43216	86193	23.5	23.5	23.5	23.5	
9.06	204	66982.7	35587.7	1.670E+07	1.670E+07	3.324E+07	23.5	23.5												1
									1204	238.8	119.4	119.4	43216	43216	86193	23.5	23.5	23.5	23.5	
4.65	203	74795.7	41792.3	1.862E+07	1.862E+07	3.700E+07	23.5	23.5												1
									1203	230.4	115.2	115.2	41701	41701	83172	23.5	23.5	23.5	23.5	
-1.00	202	54443.9	45963.6	1.544E+07	1.560E+07	3.073E+07	23.3	23.2												1
									1202	233.5	116.7	116.7	42259	42259	84284	23.5	23.5	23.5	23.5	
-6.40	201	52729.6	49066.8	1.482E+07	1.487E+07	2.943E+07	23.8	23.5												1
									1201	218.9	109.5	109.5	39626	39626	79034	23.5	23.5	23.5	23.5	
-11.50	2						43.8	25.8												

Table 3 Seismic Model Properties of Pedestal (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Center of Gravity (m)		Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Center of Rigid (m)		Centroid (m)		Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	Gx	Gy	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Rx	Ry	Cx	Cy	No.
4.65	303	55183.3	71166.7	3.255E+06	3.255E+06	6.437E+06	23.5	23.5												
									1303	100.3	50.1	50.1	2390	2390	4636	23.5	23.5	23.5	23.5	1
-1.00	302	30015.4	27033.1	1.650E+06	1.650E+06	3.164E+06	23.5	23.5												
									1302	91.1	45.5	45.5	2171	2171	4210	23.5	23.5	23.5	23.5	1
-6.40	301	26800.7	22804.5	1.456E+06	1.456E+06	2.798E+06	23.5	23.5												
									1301	102.5	51.3	51.3	2445	2445	4742	23.5	23.5	23.5	23.5	1
-11.50	2						43.8	25.8												

Table 4 Seismic Model Properties of Vent Wall and RSW (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	No.
17.5	701	19760.5	8242.5	5.560E+05	5.560E+05	1.108E+06								
							701	3.00	1.50	1.50	84	84	168	701
14.5	702	7129.5	7129.5	2.050E+05	2.050E+05	3.982E+05								
							702	3.00	1.50	1.50	84	84	168	701
11.5	703	6962.8	6933.3	1.991E+05	1.991E+05	3.883E+05								
							703	3.00	1.50	1.50	84	84	168	701
8.5	704	4932.8	4658.2	1.393E+05	1.393E+05	2.756E+05								
							704	3.00	1.50	1.50	84	84	168	701
7.4625	705	4707.2	4452.2	1.334E+05	1.334E+05	2.628E+05								
							705	3.00	1.50	1.50	84	84	168	701
4.65	706	3442.2	4001.1	9.669E+04	9.669E+04	1.922E+05								
24.18	707	1176.8	1176.8	1.353E+04	1.353E+04	2.628E+04								
							707	4.76	2.38	2.38	53	53	106	701
20.2	708	3040.1	2834.1	4.815E+04	4.815E+04	6.796E+04								
							708	4.76	2.38	2.38	53	53	106	701
15.775	709	2186.9	2186.9	3.874E+04	3.874E+04	4.884E+04								
							709	4.76	2.38	2.38	53	53	106	701
11.35	710	3108.7	3108.7	1.108E+04	1.108E+04	7.688E+03								
							710	5.80	2.90	2.90	72	72	130	701
7.4625	711	4462.0	4462.0	9.905E+03	9.905E+03	1.138E+04								
							711	7.80	3.90	3.90	89	89	178	701
4.65	712	4736.6	4736.6	5.658E+04	5.658E+04	1.079E+05								
							712	6.74	3.37	3.37	73	73	153	701
2.4615	713	1824.0	1824.0	2.089E+04	2.089E+04	4.119E+04								
							713	6.26	3.13	3.13	71	71	142	701
1.96	714	755.1	755.1	6.718E+03	6.718E+03	1.334E+04								
							714	4.20	2.10	2.10	37	37	73	701
-0.8	715	1059.1	1059.1	9.679E+03	9.679E+03	1.853E+04								

Note : These model properties were provided by HITACHI in "GESZ-SR3-2005-0008".

Table 5 Seismic Model Properties of RPV Internal (1) (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Linear Mass	Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Density (kN/m)	No.
27.64	801	0.00	0.00	0.0	0.0	0.0									
							801	4.7926	2.3963	2.3963	7.3270	7.3270	0.1	368.19	801
26.792	802	0.00	0.00	0.0	0.0	0.0									
							802	4.3454	2.1727	2.1727	22.5150	22.5150	0.1	333.84	801
25.944	803	0.00	0.00	0.0	0.0	0.0									
							803	9.4411	4.7206	4.7206	68.8541	68.8541	0.1	725.31	801
25.03	804	0.00	0.00	0.0	0.0	0.0									
							804	9.4411	4.7206	4.7206	68.8541	68.8541	0.1	725.31	801
24.3188	805	0.00	0.00	0.0	0.0	0.0									
							805	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
22.276	806	490.17	490.17	0.0	0.0	0.0									
							806	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
21.8247	807	0.00	0.00	0.0	0.0	0.0									
							807	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
20.2	808	75.29	75.29	0.0	0.0	0.0									
							808	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
19.5278	809	3.51	3.51	0.0	0.0	0.0									
							809	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
17.2677	810	9.45	9.45	0.0	0.0	0.0									
							810	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
16.365	811	0.00	0.00	0.0	0.0	0.0									
							811	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
14.51	812	0.00	0.00	0.0	0.0	0.0									

Note : These model properties were provided by GE in "GESZ-SR3-2005-0009".

Table 6 Seismic Model Properties of RPV Internal (2) (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Linear Mass	Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Density (kN/m)	No.
14.51	812						812	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
12.491	813	0.00	0.00	0.0	0.0	0.0	813	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
10.472	814	0.00	0.00	0.0	0.0	0.0	814	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
8.453	815	75.92	75.92	0.0	0.0	0.0	815	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
7.8071	816	0.00	0.00	0.0	0.0	0.0	816	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
7.111	817	0.00	0.00	0.0	0.0	0.0	817	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
6.401	818	0.00	0.00	0.0	0.0	0.0	818	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
5.691	819	0.00	0.00	0.0	0.0	0.0	819	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
4.981	820	0.00	0.00	0.0	0.0	0.0	820	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
4.2713	821	0.00	0.00	0.0	0.0	0.0	821	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
3.7593	822	0.00	0.00	0.0	0.0	0.0	822	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
3.215	823	0.00	0.00	0.0	0.0	0.0	823	4.1705	2.0853	2.0853	27.7523	27.7523	0.1	320.40	801
2.365	824	19.34	19.34	0.0	0.0	0.0	824	4.9191	2.4596	2.4596	47.0840	47.0840	0.1	377.91	801
1.785	825	19.34	1146.08	0.0	0.0	0.0	825	6.6106	3.3053	3.3053	51.7140	51.7140	0.1	507.86	801
1.2	826	0.00	0.00	0.0	0.0	0.0	826	8.1377	4.0689	4.0689	41.6440	41.6440	0.1	625.18	801
0.7657	827	0.00	384.59	0.0	0.0	0.0	827	8.2610	4.1305	4.1305	12.5970	12.5970	0.1	634.65	801
-0.1315	828	23.99	323.46	0.0	0.0	0.0									

Note : These model properties were provided by GE in "GESZ-SR3-2005-0009".

Table 7 Seismic Model Properties of RPV Internal (3) (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Linear Mass	Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Density (kN/m)	No.
21.8247	829	0.00	0.00	0.0	0.0	0.0									
							828	1.7776	0.8888	0.8888	0.0124	0.0124	0.1	139.93	820
20.2	830	0.00	0.00	0.0	0.0	0.0									
							829	1.6162	0.8081	0.8081	0.0097	0.0097	0.1	127.23	820
19.5278	831	0.00	0.00	0.0	0.0	0.0									
							830	0.6675	0.3338	0.3338	0.0023	0.0023	0.1	52.55	820
17.2677	832	0.00	0.00	0.0	0.0	0.0									
							831	1.8242	0.9121	0.9121	3.5310	3.5310	0.1	143.60	820
16.365	833	71.77	783.72	0.0	0.0	0.0									
							832	0.9734	0.4867	0.4867	4.6731	4.6731	0.1	76.63	820
14.51	834	6.33	6.33	0.0	0.0	0.0									
							833	1.7948	0.8974	0.8974	5.6470	5.6470	0.1	141.29	820
12.491	835	0.00	0.00	0.0	0.0	0.0									
							834	1.7948	0.8974	0.8974	5.6470	5.6470	0.1	141.29	820
10.472	836	0.00	0.00	0.0	0.0	0.0									
							835	1.7948	0.8974	0.8974	5.6470	5.6470	0.1	141.29	820
8.453	837	0.00	0.00	0.0	0.0	0.0									
							836	1.7948	0.8974	0.8974	5.6470	5.6470	0.1	141.29	820
7.8071	838	208.46	208.46	0.0	0.0	0.0									
							837	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
7.111	839	0.00	0.00	0.0	0.0	0.0									
							838	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
6.401	840	6.33	6.33	0.0	0.0	0.0									
							839	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
5.691	841	0.00	0.00	0.0	0.0	0.0									
							840	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
4.981	842	0.00	0.00	0.0	0.0	0.0									
							841	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
4.2713	843	0.00	0.00	0.0	0.0	0.0									
							842	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
3.7593	844	334.96	1713.66	0.0	0.0	0.0									
							843	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
3.215	845	0.00	0.00	0.0	0.0	0.0									
							844	1.0041	0.5021	0.5021	5.1282	5.1282	0.1	79.04	820
2.365	846	46.29	46.29	0.0	0.0	0.0									

Note : These model properties were provided by GE in "GESZ-SR3-2005-0009".

Table 8 Seismic Model Properties of RPV Internal (4) (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m^2)			Elem.	Axial Area	Shear Area (m^2)		Moment of Inertia (m^4)			Linear Mass	Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	No.	Sa (m^2)	Sx	Sy	Ixx	Iyy	Izz	Density (kN/m)	No.
7.896	847	0.00	0.00	0.0	0.0	0.0									
							845	1.3146	0.6573	0.6573	0.0042	0.0042	0.1	749.93	803
7.8071	848	0.00	0.00	0.0	0.0	0.0									
							846	1.3146	0.6573	0.6573	0.0042	0.0042	0.1	749.93	803
7.111	849	0.00	0.00	0.0	0.0	0.0									
							847	1.3146	0.6573	0.6573	0.0042	0.0042	0.1	749.93	803
6.401	850	0.00	0.00	0.0	0.0	0.0									
							848	1.3146	0.6573	0.6573	0.0042	0.0042	0.1	749.93	803
5.691	851	0.00	0.00	0.0	0.0	0.0									
							849	1.3146	0.6573	0.6573	0.0042	0.0042	0.1	749.93	803
4.981	852	0.00	0.00	0.0	0.0	0.0									
							850	1.3146	0.6573	0.6573	0.0042	0.0042	0.1	749.93	803
4.2713	853	0.00	0.00	0.0	0.0	0.0									
							851	1.0000	0.5000	0.5000	0.0050	0.0050	0.1	0.00	803
4.1784	854	0.00	0.00	0.0	0.0	0.0									
							852	0.9528	0.4764	0.4764	0.0086	0.0086	0.1	160.36	821
4.065	855	0.00	0.00	0.0	0.0	0.0									
							853	0.9528	0.4764	0.4764	0.0086	0.0086	0.1	160.36	821
3.215	856	0.00	0.00	0.0	0.0	0.0									
							854	0.9528	0.4764	0.4764	0.0086	0.0086	0.1	160.36	821
2.365	857	0.00	0.00	0.0	0.0	0.0									
							855	0.9528	0.4764	0.4764	0.0086	0.0086	0.1	160.36	821
1.785	858	0.00	0.00	0.0	0.0	0.0									
							856	0.9528	0.4764	0.4764	0.0086	0.0086	0.1	160.36	821
1.2	859	0.00	0.00	0.0	0.0	0.0									
							857	1.8518	0.9259	0.9259	0.0045	0.0045	0.1	145.78	821
0.7657	860	0.00	0.00	0.0	0.0	0.0									
							858	1.8518	0.9259	0.9259	0.0045	0.0045	0.1	145.78	821
-0.1315	828														

Note : These model properties were provided by GE in "GESZ-SR3-2005-0009".

Table 9 Seismic Model Properties of RPV Internal (5) (not changed)

Elevation	Node	Weight (kN)		Rotational Inertia (kN·m²)			Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Linear Mass	Material
(m)	No.	X=Y	Z	Jxx	Jyy	Jzz	No.	Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Density (kN/m)	No.
0.7657	827														
							859	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-0.788	861	0.00	0.00	0.0	0.0	0.0									
							860	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-0.788	862	0.00	0.00	0.0	0.0	0.0									
							861	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-1.443	863	0.00	0.00	0.0	0.0	0.0									
							862	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-1.443	864	0.00	0.00	0.0	0.0	0.0									
							863	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-2.098	865	0.00	0.00	0.0	0.0	0.0									
							864	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-2.098	866	0.00	0.00	0.0	0.0	0.0									
							865	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-2.753	867	13.48	13.48	0.0	0.0	0.0									
							866	0.7628	0.3814	0.3814	0.0018	0.0018	0.1	60.05	821
-2.753	868	0.00	0.00	0.0	0.0	0.0									
							867	0.8816	0.4408	0.4408	0.0029	0.0029	0.1	69.40	821
-3.4715	869	0.00	0.00	0.0	0.0	0.0									
							868	0.8816	0.4408	0.4408	0.0029	0.0029	0.1	69.40	821
-3.4715	870	0.00	0.00	0.0	0.0	0.0									
							869	0.7159	0.3580	0.3580	0.0018	0.0018	0.1	56.36	821
-4.2237	871	0.00	0.00	0.0	0.0	0.0									
							870	0.7159	0.3580	0.3580	0.0018	0.0018	0.1	56.36	821
-4.2237	872	0.00	0.00	0.0	0.0	0.0									
8.453	815														
							871	0.916	0.458	0.458	9.4432	9.4432	0.1	70.31	801
7.4625	711														

Note : These model properties were provided by GE in "GESZ-SR3-2005-0009".

Table 10 Slab Node Properties and Spring Constants (not changed)

EL (m)	Node	Weight (kN)	Spring No.	Joint Node I	Joint Node J	Stiffness (kN/m)	Note
52.40	9101	29393	9101	110	9101	8.948E+05	RB roof
	9102	4406	9102	110	9102	4.858E+05	RB roof
	9103	5858	9103	110	9103	2.725E+06	RB roof
	9104	2726	9104	110	9104	4.339E+06	RB roof
	9105	186	9105	110	9105	4.731E+05	RB roof
	9106	1211	9106	110	9106	4.632E+06	RB roof
34.00	none						
27.00	9081	39042	9081	108	9081	1.097E+08	RCCV
22.50	9071	20024	9071	107	9071	2.206E+06	FB roof
	9072	2679	9072	107	9072	4.932E+05	FB roof
	9073	707	9073	107	9073	4.299E+05	FB roof
	9074	3442	9074	107	9074	7.387E+06	FB roof
	9075	1196	9075	107	9075	3.979E+06	FB roof
17.50	9061	5798	9061	106	9061	3.389E+06	MS tunnel roof
	9062	1465	9062	106	9062	6.096E+06	MS tunnel roof
	9063	9707	9063, 9163	106	206	1.107E+07	RB-RCCV
	9064	33372	9064, 9164	206	701	1.240E+07	D/F
13.57	9051	10042	9051, 9151	105	205	1.124E+07	RB-RCCV
9.06	9041	11089	9041, 9141	104	204	1.124E+07	RB-RCCV
4.65	9031	11024	9031	103	9031	3.089E+07	FB
	9032	85613	9032, 9132	103	203	8.759E+07	RB-RCCV
	9033	64	9033, 9133	203	303	8.666E+04	RCCV-Pedestal
-1.00	9021	3655	9021	102	9021	6.110E+06	FB
	9022	1086	9022	102	9022	3.777E+06	FB
	9023	10996	9023, 9123	102	202	1.155E+07	RB-RCCV
	9024	5964	9024, 9124	202	302	9.266E+06	RCCV-Pedestal
-6.40	9011	3704	9011, 9111	201	301	3.701E+06	RCCV-Pedestal
	9012	3621	9012, 9112	201	301	5.045E+06	RCCV-Pedestal

Table 11 RPV Hydro Dynamic Mass (not changed)

Node No.			Mass Matrix Cell Position and Mass Value (kN)									
I-node	J-node	K-node	(1,1)	(2,2)	(7,7)	(8,8)	(13,13)	(14,14)	(1,7)	(2,8)	(7,13)	(8,14)
808	830		486.3	486.3	165.9	165.9			-239.1	-239.1		
809	831		669.2	669.2	173.8	173.8			-245.7	-245.7		
810	832		815.8	815.8	361.3	361.3			-430.4	-430.4		
811	833		1942.9	1942.9	1470.0	1470.0			-1616.1	-1616.1		
812	834		3352.6	3352.6	2542.5	2542.5			-2793.2	-2793.2		
813	835		3494.6	3494.6	2650.1	2650.1			-2911.5	-2911.5		
814	836		3494.6	3494.6	2650.1	2650.1			-2911.5	-2911.5		
815	837		2306.3	2306.3	1748.9	1748.9			-1921.5	-1921.5		
816	838	848	1321.5	1321.5	1247.3	1247.3	107.5	107.5	-1131.3	-1131.3	-151.5	-151.5
817	839	849	1540.3	1540.3	1663.2	1663.2	217.3	217.3	-1344.4	-1344.4	-306.1	-306.1
818	840	850	1555.6	1555.6	1679.6	1679.6	219.4	219.4	-1357.7	-1357.7	-309.1	-309.1
819	841	851	1555.6	1555.6	1679.6	1679.6	219.4	219.4	-1357.7	-1357.7	-309.1	-309.1
820	842	852	1555.2	1555.2	1679.2	1679.2	219.4	219.4	-1357.4	-1357.4	-309.0	-309.0
821	843	853	777.4	777.4	839.5	839.5	109.7	109.7	-678.5	-678.5	-154.5	-154.5
822	844	854	1488.2	1488.2	1480.4	1480.4	151.2	151.2	-1321.8	-1321.8	-158.6	-158.6
823	845	856	1527.4	1527.4	1493.1	1493.1	152.5	152.5	-1333.1	-1333.1	-160.0	-160.0
824	846	857	1566.5	1566.5	1531.3	1531.3	156.4	156.4	-1367.2	-1367.2	-164.1	-164.1
825	858		299.8	299.8	127.3	127.3			-133.4	-133.4		
826	859		209.4	209.4	67.6	67.6			-78.1	-78.1		
827	860		119.7	119.7	7.4	7.4			-22.7	-22.7		

Note : These model properties were provided by GE in "GESZ-SR3-2005-0009".

Table 12 Spring Constants (not changed)

Spring No.		Joint Node		Stiffness		Critical Damping	Note
		I	J				
555	K125	108	208	4.480E+09	kN·m/rad	0.07	Y-Y Rotation
811	K1	804	208	1.755E+05		0.04	Horizontal
812	K2	808	708	6.168E+06		0.04	Horizontal
813	K3	811	833	1.755E+07		0.04	Horizontal
814	K4	824	846	5.443E+07	kN/m	0.04	Horizontal
816	K6	867	376	1.098E+06		0.02	Horizontal
817	K7	867	868	1.226E+07		0.02	Horizontal
838	K8	824	846	8.273E+07		0.04	Vertical
845	K5	824	846	4.227E+10	kN·m/rad	0.04	Rotation

Note : These spring constants except for No.K125, were provided by GE in "GESZ-SR3-2005-0009".

Table 13 Material Constants (not changed)

Material No.	Young's Modulus (kN/m^2)	Poisson's Ratio	Critical Damping (%)
1	2.7797E+07	0.17	0.07
2	2.4862E+07	0.17	0.07
701	2.0000E+08	0.30	0.04
801	1.7604E+08	0.30	0.04
820	1.7651E+08	0.30	0.02
821	1.7651E+08	0.30	0.04
803	7.4060E+07	0.41	0.06

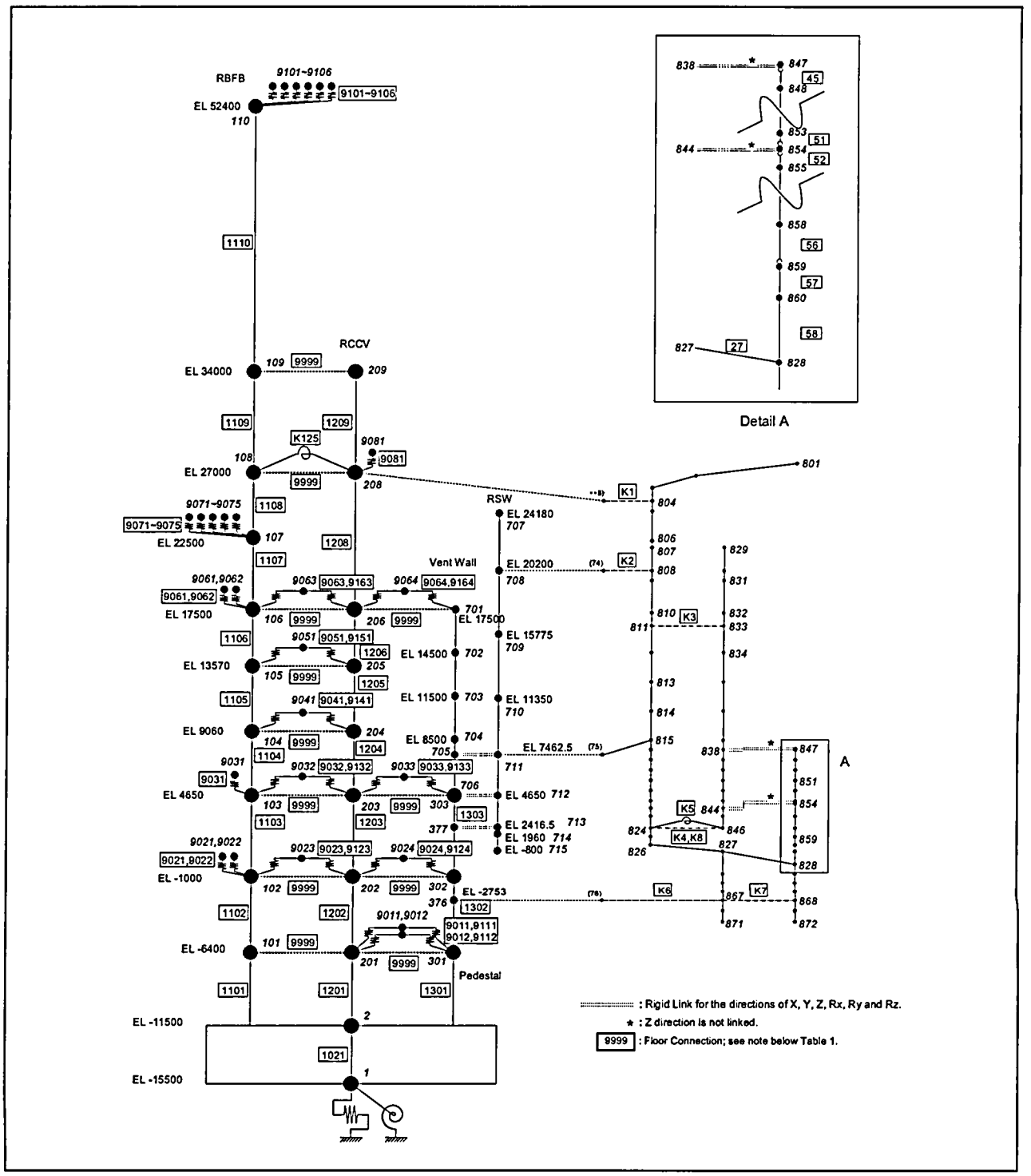
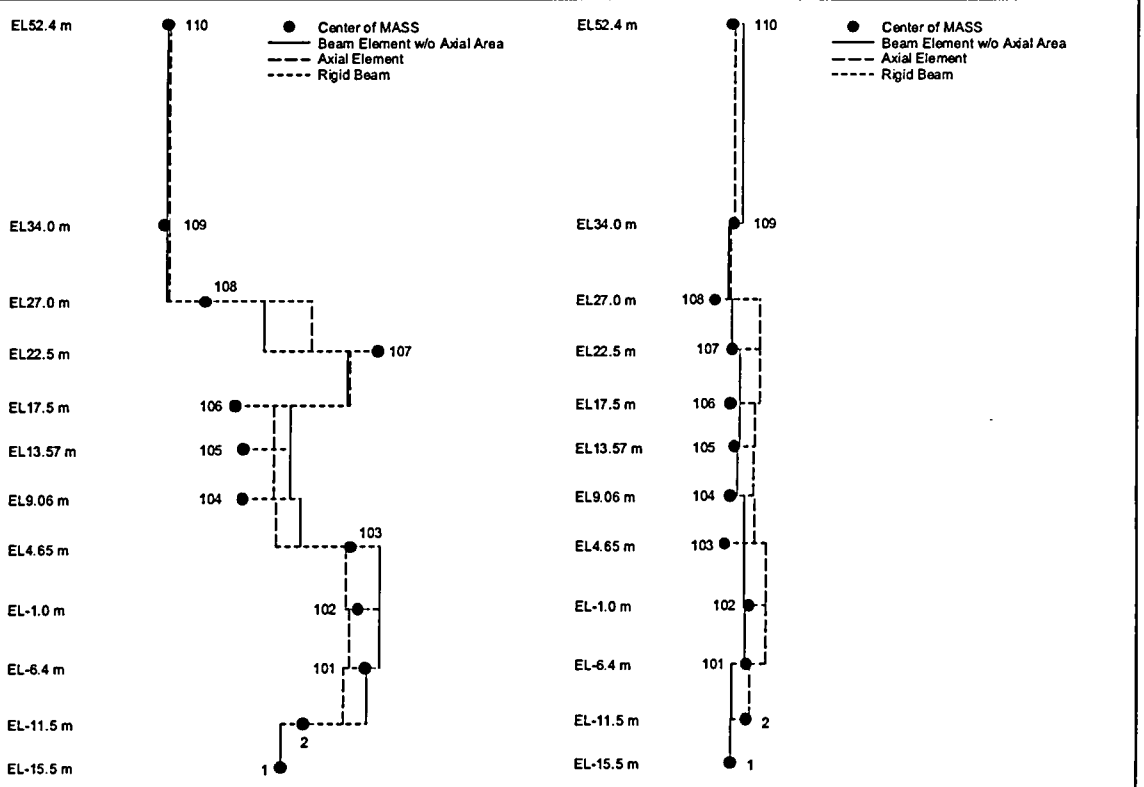
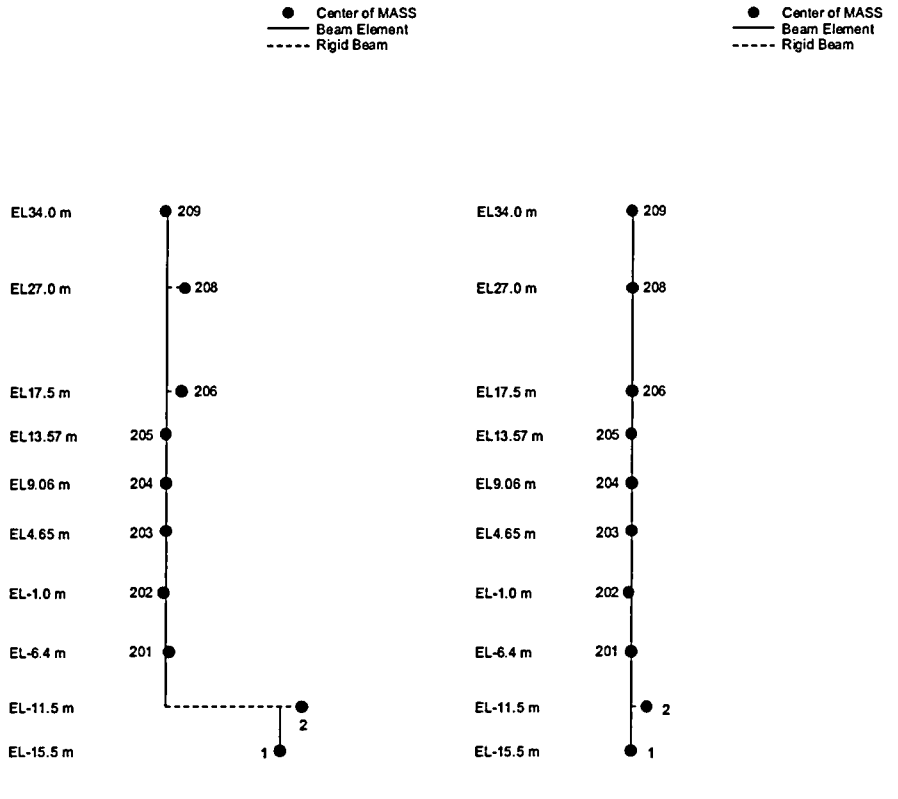


Figure 1 RBFB Seismic Analysis Stick Model



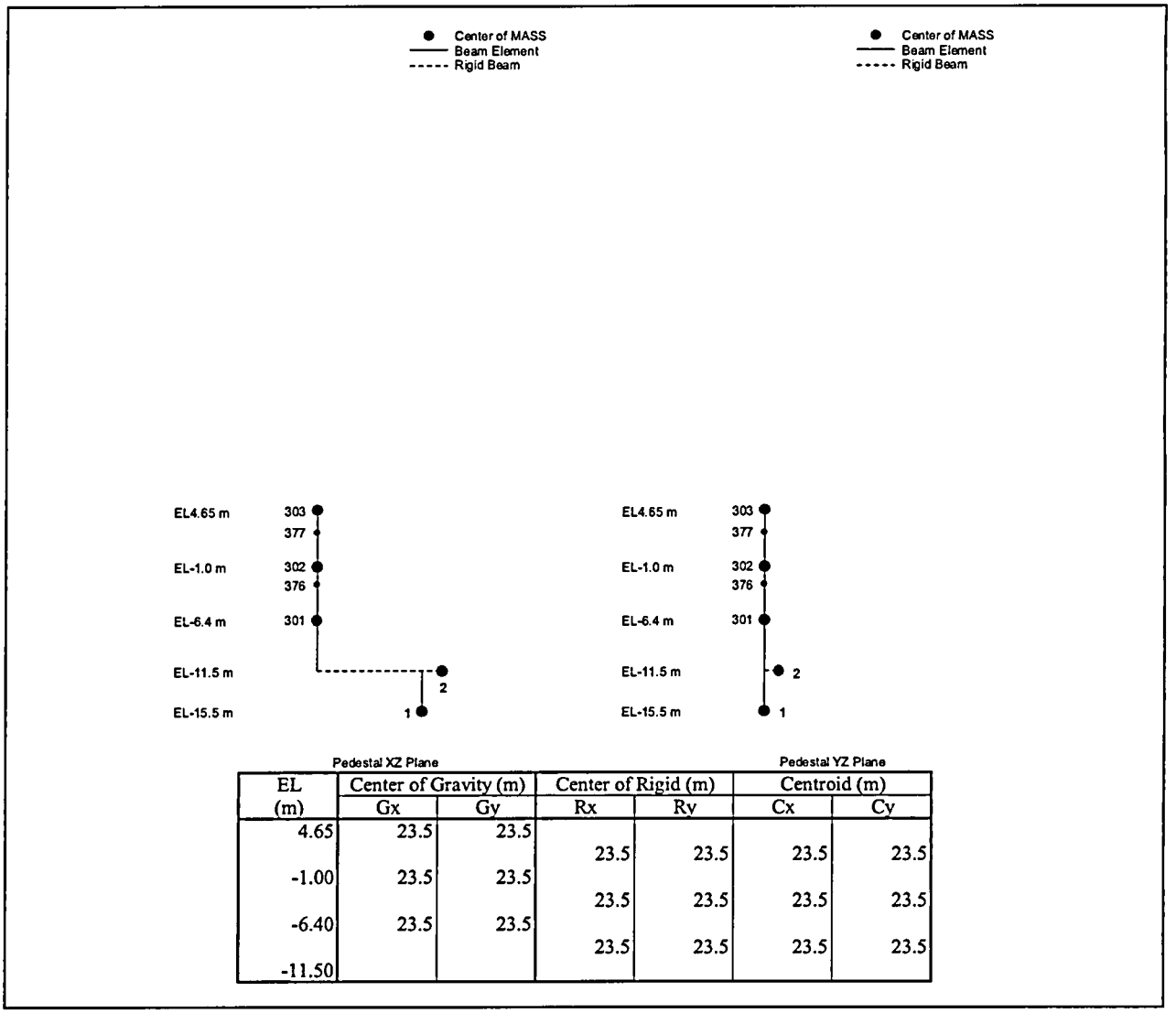
EL (m)	Center of Gravity (m)		Center of Rigid (m)		Centroid (m)	
	Gx	Gy	Rx	Ry	Cx	Cy
52.40	23.5	23.5				
			23.5	24.4	23.5	23.7
34.00	23.2	23.7				
			23.5	23.3	23.5	23.4
27.00	27.0	22.0				
			32.3	23.5	36.7	26.1
22.50	42.7	23.5				
			40.0	24.3	40.1	26.0
17.50	29.8	23.4				
			34.8	24.3	33.2	25.6
13.57	30.5	23.8				
			34.8	24.0	33.2	25.5
9.06	30.5	23.4				
			35.7	24.7	33.5	25.7
4.65	40.3	22.9				
			42.9	24.6	39.9	26.7
-1.00	40.9	25.1				
			42.9	24.7	40.1	26.7
-6.40	41.6	24.9				
			41.7	23.6	39.6	25.3
-11.50	36.0	24.9				
			34.0	23.5	34.0	23.5
-15.50	34.0	23.5				

Figure 2 Center of Gravity, Center of Rigidity and Centroid - RBFB - (not changed)



EL (m)	Center of Gravity (m)		Center of Rigid (m)		Centroid (m)	
	Gx	Gy	Rx	Ry	Cx	Cy
34.00	23.3	23.5				
			23.5	23.5	23.5	23.5
27.00	25.2	23.5				
			23.5	23.5	23.5	23.5
17.50	24.9	23.5				
			23.5	23.5	23.5	23.5
13.57	23.4	23.5				
			23.5	23.5	23.5	23.5
9.06	23.5	23.5				
			23.5	23.5	23.5	23.5
4.65	23.5	23.5				
			23.5	23.5	23.5	23.5
-1.00	23.3	23.2				
			23.5	23.5	23.5	23.5
-6.40	23.8	23.5				
			23.5	23.5	23.5	23.5
-11.50						

Figure 3 Center of Gravity, Center of Rigidity and Centroid - RCCV - (not changed)



Pedestal XZ Plane

Pedestal YZ Plane

EL (m)	Center of Gravity (m)		Center of Rigid (m)		Centroid (m)	
	Gx	Gy	Rx	Ry	Cx	Cy
4.65	23.5	23.5				
			23.5	23.5	23.5	23.5
-1.00	23.5	23.5				
			23.5	23.5	23.5	23.5
-6.40	23.5	23.5				
			23.5	23.5	23.5	23.5
-11.50						

Figure 4 Center of Gravity, Center of Rigidity and Centroid - Pedestal - (not changed)

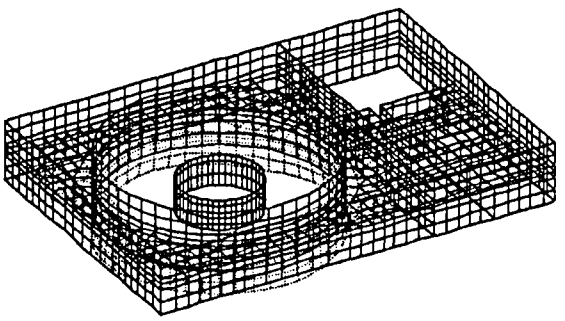
Appendix A Evaluation of Additional Vertical Springs

- Pool Girder spring
  Stiffness is calculated by the following equation.

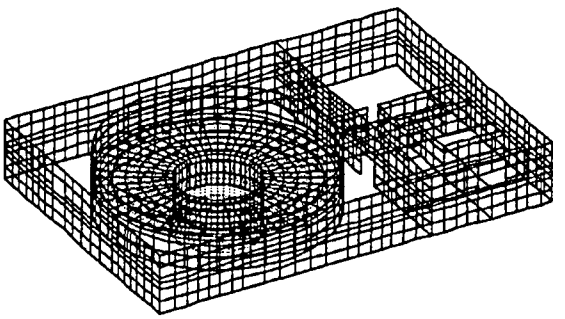
$$K = \sum \frac{GA}{L}$$

  where,
  G: Shear stiffness of concrete (1.187×10^4 MN/m^2)
  A: Section area of Pool Girder (thickness*height)
  thickness : 1.6m
  height : 9.4m
  L: Length of Pool Girder (between RCCV and outer wall)
  R1-R2 4.7m
  R6-R7 6.0m
  Calculated stiffness is $K = 6.772 \times 10^4$ MN/m

- Floor Slab & Suppression Pool Slab
  Stiffness is evaluated by FE analysis using partial floor model at EL 4650.



FE Model for Floor Slab
(S/P slab elements are deleted.)



FE Model for Suppression Pool Slab
(Floor slab elements are deleted.)

Calculated stiffness is $K = 1.348 \times 10^4$ MN/m (for floor slab of 1.0m thick)
$K = 6.773 \times 10^3$ MN/m (for Suppression Pool slab)

Appendix B Eigenvalue Analysis Results

Analysis Model Conditions

- Fixed base case
- Eliminate floor oscillators and their weights are added to the nodes which they are attached to.
- RPV is eliminated and its weight (21413kN) is added Node No.711.

It was confirmed from the results that the number of dynamic degrees of freedom is no less than twice the number of modes below the cutoff frequency, 50Hz. (reference : RAI 3.4-24)

Table B-1 Eigenvalue Analysis Results

FIX	X			Y			Z		
	NODE= 38		DOF= 76	NODE= 38		DOF= 76	NODE= 38		DOF= 38
1	2-th	4.405 Hz	110 X	1-th	3.949 Hz	110 Y	17-th	17.22 Hz	110 Z
2	5-th	8.728 Hz	110 X	3-th	6.091 Hz	107 Y	20-th	20.94 Hz	110 Z
3	6-th	11.05 Hz	707 X	4-th	8.065 Hz	110 Y	28-th	27.6 Hz	110 Z
4	8-th	13.08 Hz	707 X	7-th	11.89 Hz	707 Y	37-th	32.6 Hz	203 Z
5	11-th	14.18 Hz	707 X	9-th	13.58 Hz	110 Y	38-th	35.06 Hz	701 Z
6	12-th	14.58 Hz	707 X	10-th	14.04 Hz	707 Y	48-th	42.71 Hz	108 Z
7	16-th	16.5 Hz	707 X	13-th	15.03 Hz	707 Y	56-th	52.21 Hz	102 Z
8	22-th	22.35 Hz	707 X	14-th	16.01 Hz	707 Y	60-th	54.89 Hz	209 Z
9	24-th	24.81 Hz	707 X	15-th	16.07 Hz	707 Y	63-th	57.28 Hz	707 Z
10	25-th	25.76 Hz	707 X	18-th	18.44 Hz	707 Y	66-th	59.97 Hz	109 Z
11	32-th	30.1 Hz	702 X	19-th	20.46 Hz	107 Y	68-th	60.87 Hz	209 Z
12	34-th	31.81 Hz	703 X	21-th	22.22 Hz	707 Y	74-th	64.5 Hz	109 Z
13	36-th	32.01 Hz	703 X	23-th	24.11 Hz	707 Y	76-th	68.18 Hz	109 Z
14	41-th	37.3 Hz	702 X	26-th	25.76 Hz	707 Y	78-th	69.95 Hz	201 Z
15	43-th	38.07 Hz	702 X	27-th	26.27 Hz	702 Y	79-th	74.2 Hz	707 Z
16	46-th	41.99 Hz	702 X	29-th	28.35 Hz	707 Y			
17	52-th	49.71 Hz	707 X	30-th	28.94 Hz	702 Y			
18	53-th	51.08 Hz	107 X	31-th	29.02 Hz	702 Y			
19	54-th	51.17 Hz	107 X	33-th	31.76 Hz	703 Y			
20	58-th	53.81 Hz	709 X	35-th	31.92 Hz	703 Y			
21	61-th	55.46 Hz	709 X	39-th	35.29 Hz	702 Y			
22	65-th	59.27 Hz	107 X	40-th	35.68 Hz	702 Y			
23	69-th	61.05 Hz	702 X	42-th	37.47 Hz	702 Y			
24	70-th	61.38 Hz	702 X	44-th	39.91 Hz	702 Y			
25	72-th	63.05 Hz	702 X	45-th	41.81 Hz	702 Y			
26	73-th	63.07 Hz	702 X	47-th	42.2 Hz	710 Y			
27				49-th	43.47 Hz	710 Y			
28				50-th	47.07 Hz	101 Y			
29				51-th	48.26 Hz	710 Y			
30				55-th	51.52 Hz	107 Y			
31				57-th	52.44 Hz	107 Y			
32				59-th	53.88 Hz	709 Y			
33				62-th	55.49 Hz	709 Y			
34				64-th	57.53 Hz	107 Y			
35				67-th	60.08 Hz	703 Y			
36				71-th	62.52 Hz	702 Y			
37				75-th	66.91 Hz	103 Y			
38				77-th	69.33 Hz	104 Y			
39				80-th	75.07 Hz	205 Y			
40									
41									
42									
43									
44									
45									

Appendix C Additional Information for SASSI Model

Table C-1 RBFB SASSI Model Properties

EL (m)	Node	Weight (kN)		Rotational Inertia (kN-m²)			Center of Gravity (m)		Elem.	Axial Area	Shear Area (m²)		Moment of Inertia (m⁴)			Center of Rigid (m)		Centroid (m)	
		X=Y	Z	Jxx	Jyy	Jzz	Gx	Gy		Sa (m²)	Sx	Sy	Ixx	Iyy	Izz	Rx	Ry	Cx	Cy
52.40	110	89647.0	45866.9	3.827E+07	4.396E+07	8.652E+07	23.5	23.5											
									1110	1.682E+02	9.423E+01	7.800E+01	2.579E+04	6.054E+04	1.723E+05	23.5	24.4	23.5	23.7
34.00	109	94758.2	90015.7	5.471E+07	6.001E+07	1.133E+08	23.2	23.7											
									1109	1.920E+02	9.800E+01	9.800E+01	3.557E+04	6.297E+04	3.776E+05	23.5	23.3	23.5	23.4
27.00	108	133260.3	138002.8	4.871E+07	7.087E+07	1.203E+08	27.0	22.0											
									1108	2.887E+02	1.596E+02	1.383E+02	4.852E+04	1.140E+05	1.338E+05	32.3	23.5	36.7	26.1
22.50	107	69716.8	41669.4	3.248E+07	5.600E+07	9.404E+07	42.7	23.5											
									1107	3.418E+02	1.823E+02	1.704E+02	6.206E+04	1.119E+05	1.833E+05	40.0	24.3	40.1	26.0
17.50	106	68973.5	56857.1	3.483E+07	4.996E+07	8.659E+07	29.8	23.4											
									1106	3.673E+02	1.823E+02	1.960E+02	7.083E+04	1.204E+05	2.056E+05	34.8	24.3	33.2	25.6
13.57	105	64642.8	59622.0	3.076E+07	5.007E+07	8.033E+07	30.5	23.8											
									1105	3.694E+02	1.844E+02	1.960E+02	7.083E+04	1.218E+05	2.068E+05	34.8	24.0	33.2	25.5
9.06	104	69170.6	63626.0	3.365E+07	5.239E+07	8.551E+07	30.5	23.4											
									1104	3.595E+02	1.797E+02	1.908E+02	6.896E+04	1.186E+05	1.972E+05	35.7	24.7	33.5	25.7
4.65	103	96842.6	38145.8	3.310E+07	5.390E+07	8.654E+07	40.3	22.9											
									1103	2.120E+02	5.120E+01	1.623E+02	2.245E+04	2.710E+03	8.836E+03	53.2	28.3	53.0	33.7
-1.00	102	107916.3	87029.5	2.813E+07	4.453E+07	7.232E+07	44.6	26.0											
									1102	2.204E+02	5.116E+01	1.725E+02	2.324E+04	2.641E+03	9.093E+03	52.6	28.3	53.2	33.5
-6.40	101	117825.9	107707.4	3.283E+07	5.381E+07	8.620E+07	44.8	25.7											
									1101	2.964E+02	9.225E+01	2.223E+02	5.417E+04	2.687E+04	7.364E+04	48.2	23.0	48.1	28.0
-11.50	2	307338.4	333306.5	6.584E+07	9.714E+07	1.627E+08	36.7	25.2											
									1021	3.430E+03	3.430E+03	3.430E+03	6.863E+05	1.401E+06	1.554E+06	34.0	23.5	34.0	23.5
-15.50	1	161456.7	161456.7	3.230E+07	6.593E+07	9.823E+07	34.0	23.5											

Below Grade

Note : Contribution of external walls below grade, which are shaded in Figures C-1 through C-3, are neglected.

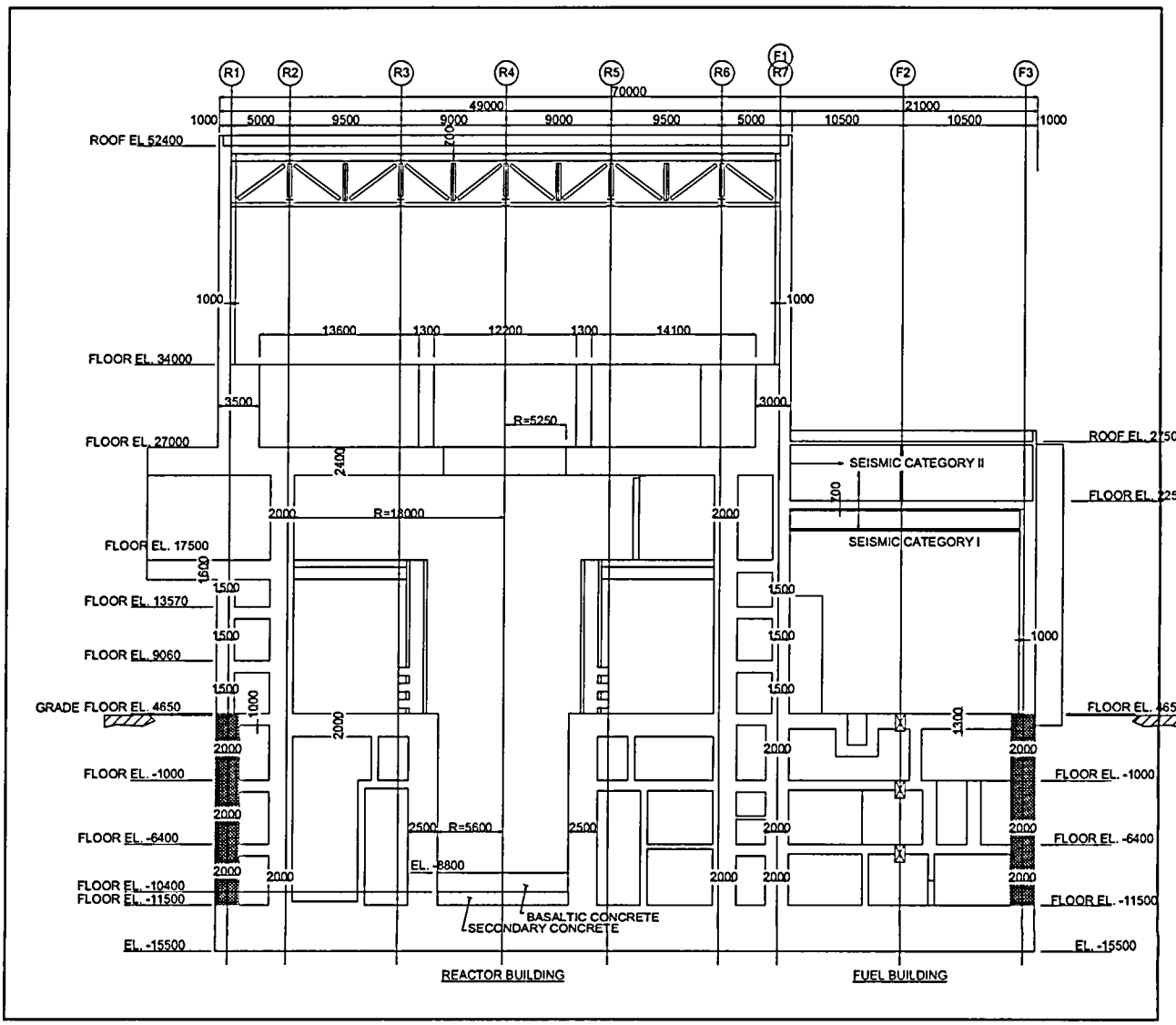


Figure C-1 RBFB Section 0°-180°

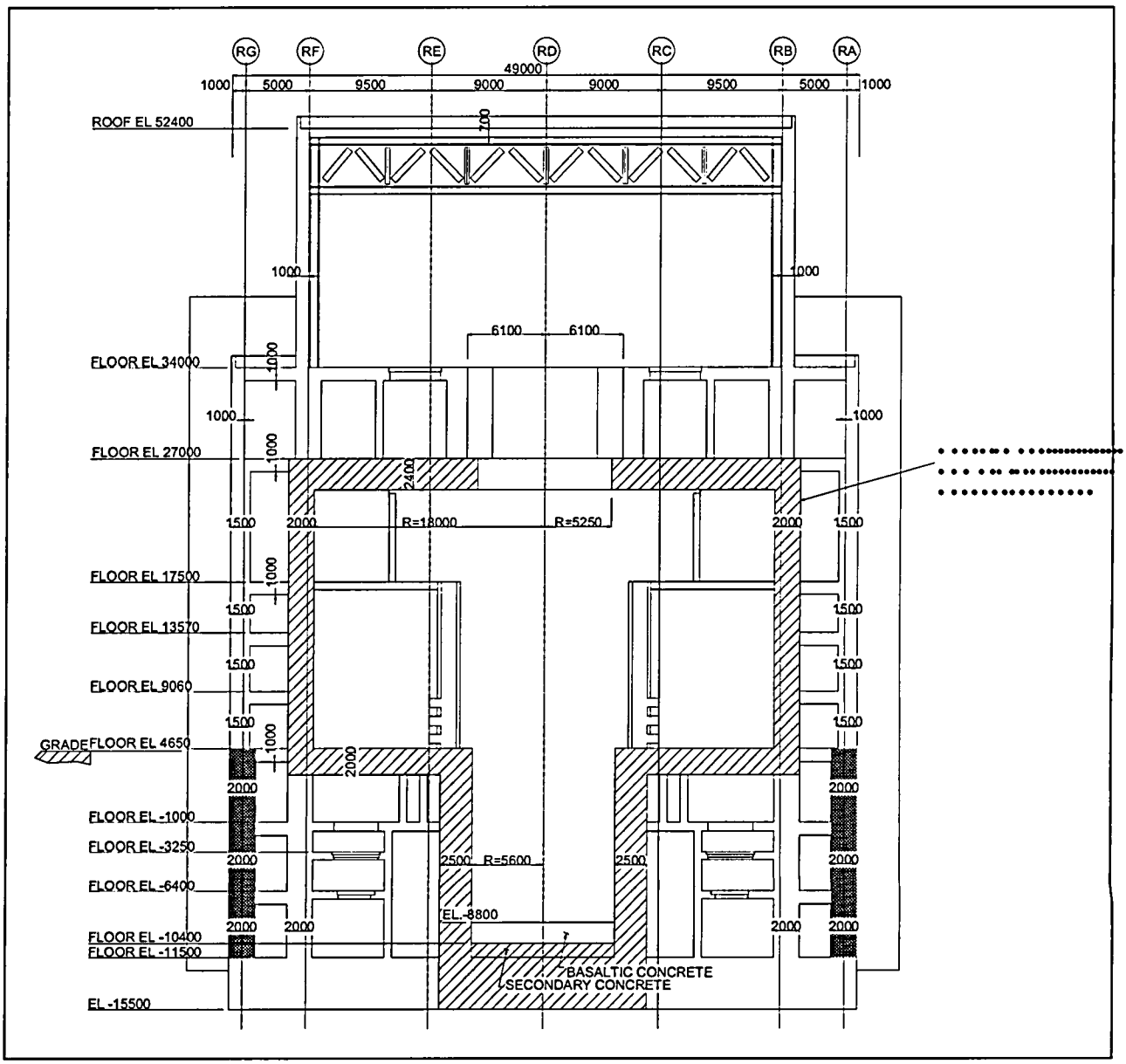


Figure C-2 Reactor Building Section 90° - 270°

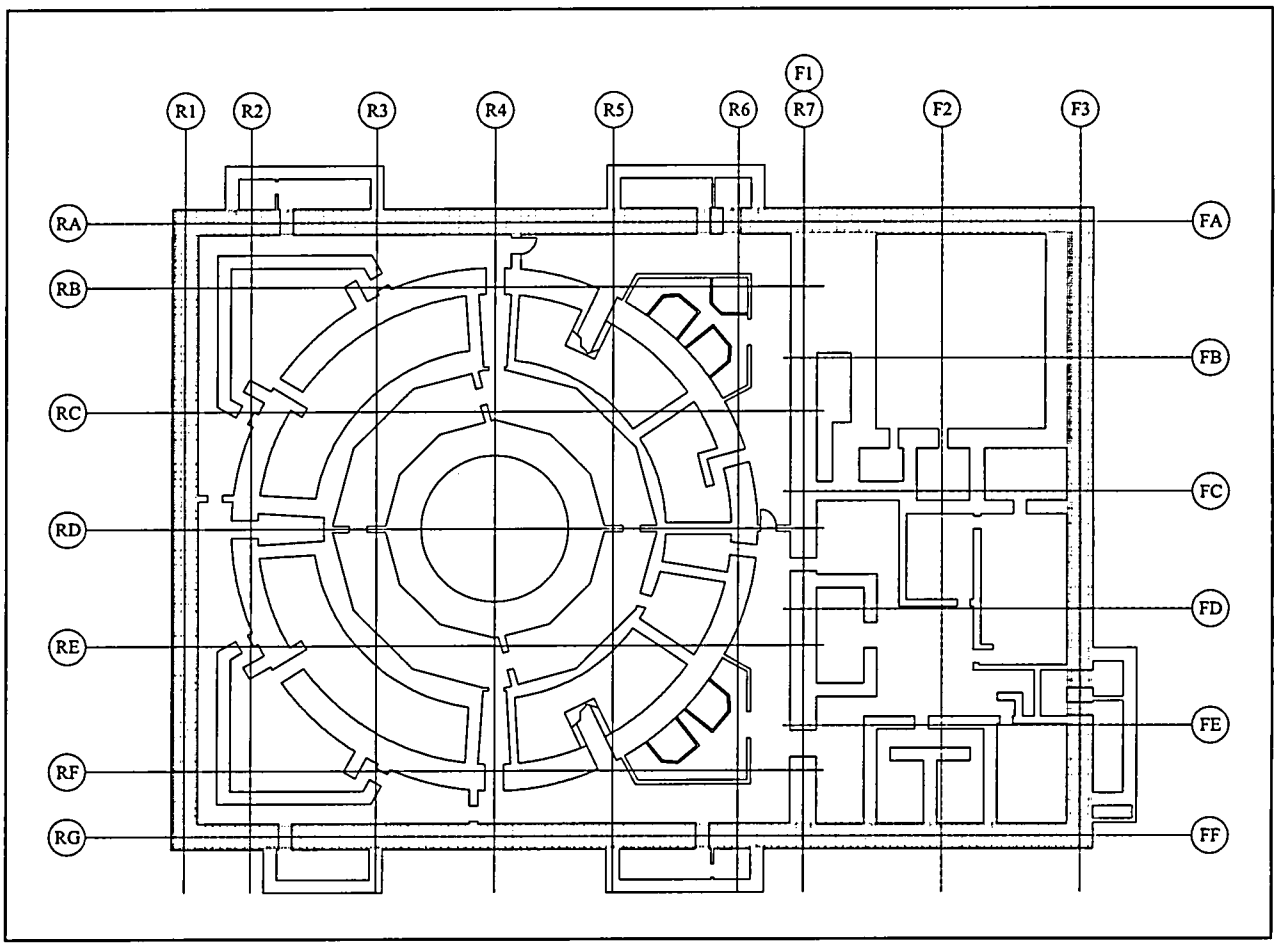
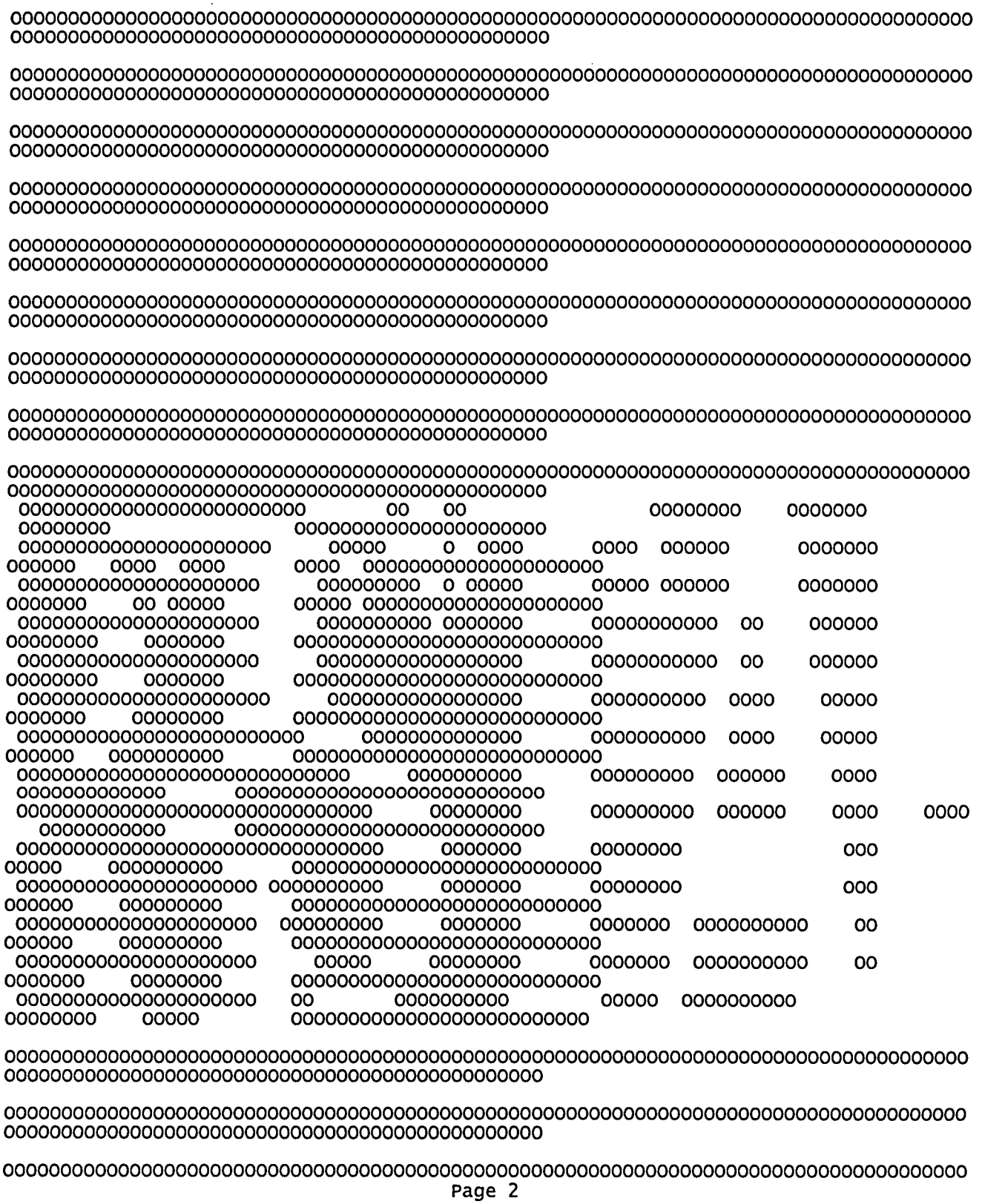


Figure C-3 EL-11.5 Plan

RBFB_Fix_1.txt

RBFB_Fix_1.txt



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          TITL ESBWR
               NJOB LCPU LCHK LPRN
          ISTP 1000 1000    1    1
               LEIG MEIU MTRV LPRN NPR1 NPR2           TOLE       EMIN       EMAX
          MSTP    1  200  200    2  200  200                       0.0      800.0
          MENR
               MSTP MDV1 MDV2 LPRN                     DLTA       ALFA       BETA
          DSTP 2200    5    1    2                    0.010

               LITE NITE NKTM NKIT LCNV LSTU LSTP
          ITER    1   10    1   10  110         1
                          EPSD       EPSF       EPSE       EMSD       EMSF       EMSE
          ITE2         1.0E-08    1.0E-06    1.0E-12    1.0E-08    1.0E-04    1.0E-12
               NCOD MCOD IDIR      XMAX
          WAV  1000    1    1       0.0
          WAV  1000    2    2       0.0
          WAV  1000    3    3       0.0
               KEY1 KEY2 KEY3 INUM
          OUTR
          EWAV JOI  ACC
          EWAV JOI  DIS
          EWAV SPL
          EWAV DSL
          ======================================================================
          ======================================================================
           JOI DATA
          ======================================================================
                INUM     XYZXYZ    X-COORD    Y-COORD    Z-COORD RAY-DAMP1 RAY-DAMP2
           BASEMAT
          JOI      2               1249.43     143.38   -1150.00      -1.0      -1.0
```

RBFB_Fix_1.txt

```
                                1050.00       0.00  -1150.00       -1.0       -1.0
                                1050.00       0.00  -1150.00       -1.0       -1.0

        JOI       1             1050.00       0.00  -1550.00       -1.0       -1.0
                                1050.00       0.00  -1550.00       -1.0       -1.0
                                1050.00       0.00  -1550.00       -1.0       -1.0

        JOI     111   FFFFFF    1050.00       0.00  -1550.00       -1.0       -1.0
        JOI    9999   FFFFFF    9000.00       0.00      0.00       -1.0       -1.0

         PEDESTAL
        JOI     303                0.00       0.08    465.00       -1.0       -1.0
             23003                 0.00       0.00    465.00       -1.0       -1.0
             33003                 0.00       0.00    465.00       -1.0       -1.0

        JOI     377                0.00       0.04    241.65       -1.0       -1.0

        JOI     302                0.00       0.04   -100.00       -1.0       -1.0
             23002                 0.00       0.00   -100.00       -1.0       -1.0
             33002                 0.00       0.00   -100.00       -1.0       -1.0
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        JOI     376               -1.73       0.04   -275.30       -1.0       -1.0

        JOI     301               -1.73       0.04   -640.00       -1.0       -1.0
             23001                 0.00       0.00   -640.00       -1.0       -1.0
             33001                 0.00       0.00   -640.00       -1.0       -1.0

         RCCV
        JOI     209              -16.40      -2.09   3400.00       -1.0       -1.0
             22009                 0.00       0.00   3400.00       -1.0       -1.0
             32009                 0.00       0.00   3400.00       -1.0       -1.0

        JOI     208              167.01       1.98   2700.00       -1.0       -1.0
             22008                 0.00       0.00   2700.00       -1.0       -1.0
             32008                 0.00       0.00   2700.00       -1.0       -1.0

         OI     273              141.35       1.65   2503.00       -1.0       -1.0

        JOI     206              141.35       1.65   1750.00       -1.0       -1.0
             22006                 0.00       0.00   1750.00       -1.0       -1.0
             32006                 0.00       0.00   1750.00       -1.0       -1.0

        JOI     205               -5.66      -2.05   1357.00       -1.0       -1.0
             22005                 0.00       0.00   1357.00       -1.0       -1.0
             32005                 0.00       0.00   1357.00       -1.0       -1.0

        JOI     204                0.00       0.00    906.00       -1.0       -1.0
             22004                 0.00       0.00    906.00       -1.0       -1.0
             32004                 0.00       0.00    906.00       -1.0       -1.0

        JOI     203                0.00       0.00    465.00       -1.0       -1.0
             22003                 0.00       0.00    465.00       -1.0       -1.0
             32003                 0.00       0.00    465.00       -1.0       -1.0
```

RBFB_Fix_1.txt

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          JOI    202              -20.50    -25.60   -100.00      -1.0      -1.0
               22002                0.00      0.00   -100.00      -1.0      -1.0
               32002                0.00      0.00   -100.00      -1.0      -1.0

          JOI    201               32.79      2.42   -640.00      -1.0      -1.0
               22001                0.00      0.00   -640.00      -1.0      -1.0
               32001                0.00      0.00   -640.00      -1.0      -1.0

           RBFB
          JOI    110                0.00      0.00   5240.00      -1.0      -1.0
               21010                0.00     94.00   5240.00      -1.0      -1.0
               31010              574.48     19.07   5240.00      -1.0      -1.0

          JOI    109              -25.33     19.08   3400.00      -1.0      -1.0
               21009                0.00    -25.00   3400.00      -1.0      -1.0
               31009              525.00    -12.50   3400.00      -1.0      -1.0
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          JOI    108               350.80   -148.80   2700.00      -1.0      -1.0
               21008               875.92     -1.97   2700.00      -1.0      -1.0
               31008              1319.39    258.01   2700.00      -1.0      -1.0

          JOI    107              1919.51      4.81   2250.00      -1.0      -1.0
               21007              1646.16     80.46   2250.00      -1.0      -1.0
               31007              1663.15    252.66   2250.00      -1.0      -1.0

          JOI    106               626.88     -7.74   1750.00      -1.0      -1.0
               21006              1125.00     80.46   1750.00      -1.0      -1.0
               31006               972.29    214.47   1750.00      -1.0      -1.0

          JOI    105               702.09     27.19   1357.00      -1.0      -1.0
               21005              1125.00     52.65   1357.00      -1.0      -1.0
               31005               972.72    200.11   1357.00      -1.0      -1.0

          JOI    104               696.88    -10.45    906.00      -1.0      -1.0
               21004              1219.21    116.26    906.00      -1.0      -1.0
               31004               997.37    218.38    906.00      -1.0      -1.0

          JOI    103              1676.13    -58.92    465.00      -1.0      -1.0
               21003              1939.07    113.19    465.00      -1.0      -1.0
               31003              1636.85    318.50    465.00      -1.0      -1.0

          JOI    102              1741.38    163.95   -100.00      -1.0      -1.0
               21002              1942.49    124.35   -100.00      -1.0      -1.0
               31002              1662.14    319.14   -100.00      -1.0      -1.0

          JOI    101              1813.28    142.13   -640.00      -1.0      -1.0
               21001              1822.14     14.85   -640.00      -1.0      -1.0
               31001              1608.91    175.79   -640.00      -1.0      -1.0
          ================================================================================
           REFERENCE POINT FOR SHEAR BEAM
          JOI  19021    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
```

RBFB_Fix_1.txt

```
JOI  19303    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19302    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19301    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  19209    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19208    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19206    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19205    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19204    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19203    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19202    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  19201    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  19110    FFFFFF   10000.0     94.00      0.00      -1.0      -1.0
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JOI  19109    FFFFFF   10000.0    -25.00      0.00      -1.0      -1.0
JOI  19108    FFFFFF   10000.0     -1.97      0.00      -1.0      -1.0
JOI  19107    FFFFFF   10000.0     80.46      0.00      -1.0      -1.0
JOI  19106    FFFFFF   10000.0     80.46      0.00      -1.0      -1.0
JOI  19105    FFFFFF   10000.0     52.65      0.00      -1.0      -1.0
JOI  19104    FFFFFF   10000.0    116.26      0.00      -1.0      -1.0
JOI  19103    FFFFFF   10000.0    113.19      0.00      -1.0      -1.0
JOI  19102    FFFFFF   10000.0    124.35      0.00      -1.0      -1.0
JOI  19101    FFFFFF   10000.0     14.85      0.00      -1.0      -1.0
================================================================================
 REFERENCE POINT FOR SLAB RIGID BEAM
JOI  19129    FFFFFF     -25.33     19.08   10000.0      -1.0      -1.0
JOI  19128    FFFFFF     350.80   -148.80   10000.0      -1.0      -1.0
JOI  19126    FFFFFF     626.88      4.81   10000.0      -1.0      -1.0
JOI  19125    FFFFFF     702.09     27.19   10000.0      -1.0      -1.0
JOI  19124    FFFFFF     696.88    -10.45   10000.0      -1.0      -1.0
JOI  19123    FFFFFF    1676.13    -58.92   10000.0      -1.0      -1.0
JOI  19122    FFFFFF    1741.38    163.95   10000.0      -1.0      -1.0
JOI  19121    FFFFFF    1813.28    142.13   10000.0      -1.0      -1.0

JOI  19233    FFFFFF       0.00      0.00   10000.0      -1.0      -1.0
JOI  19232    FFFFFF     -20.50    -25.60   10000.0      -1.0      -1.0
JOI  19231    FFFFFF      32.79      2.42   10000.0      -1.0      -1.0
JOI  19701    FFFFFF     141.35      1.65   10000.0      -1.0      -1.0
================================================================================
 OSCILLATOR
JOI   9101    FF FFF       0.00      0.00    5240.00      -1.0      -1.0
JOI   9102    FF FFF       0.00      0.00    5240.00      -1.0      -1.0
JOI   9103    FF FFF       0.00      0.00    5240.00      -1.0      -1.0
JOI   9104    FF FFF       0.00      0.00    5240.00      -1.0      -1.0
JOI   9105    FF FFF       0.00      0.00    5240.00      -1.0      -1.0
JOI   9106    FF FFF       0.00      0.00    5240.00      -1.0      -1.0

JOI   9081    FF FFF     350.80   -148.80    2700.00      -1.0      -1.0

JOI   9071    FF FFF    1919.51      4.81    2250.00      -1.0      -1.0
JOI   9072    FF FFF    1919.51      4.81    2250.00      -1.0      -1.0
JOI   9073    FF FFF    1919.51      4.81    2250.00      -1.0      -1.0
JOI   9074    FF FFF    1919.51      4.81    2250.00      -1.0      -1.0
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RBFB_Fix_1.txt

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JOI   9075    FF FFF   1919.51      4.81   2250.00      -1.0      -1.0

JOI   9061    FF FFF    626.88     -7.74   1750.00      -1.0      -1.0
JOI   9062    FF FFF    626.88     -7.74   1750.00      -1.0      -1.0
JOI   9063    FF FFF    141.35      1.65   1750.00      -1.0      -1.0
JOI   9064    FF FFF    141.35      1.65   1750.00      -1.0      -1.0

JOI   9051    FF FFF    702.09     27.19   1357.00      -1.0      -1.0

JOI   9041    FF FFF    696.88    -10.45    906.00      -1.0      -1.0

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JOI   9031    FF FFF   1676.13    -58.92    465.00      -1.0      -1.0
JOI   9032    FF FFF      0.00      0.00    465.00      -1.0      -1.0
JOI   9033    FF FFF      0.00      0.00    465.00      -1.0      -1.0

JOI   9021    FF FFF   1741.38    163.95   -100.00      -1.0      -1.0
JOI   9022    FF FFF   1741.38    163.95   -100.00      -1.0      -1.0
JOI   9023    FF FFF    -20.50    -25.60   -100.00      -1.0      -1.0
JOI   9024    FF FFF    -20.50    -25.60   -100.00      -1.0      -1.0

JOI   9011    FF FFF     32.79      2.42   -640.00      -1.0      -1.0
JOI   9012    FF FFF     32.79      2.42   -640.00      -1.0      -1.0
================================================================================
 REFERENCE POINT FOR AXIAL BEAM
JOI  29021    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  29303    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29302    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29301    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  29209    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29208    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29206    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29205    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29204    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29203    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29202    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29201    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  29110    FFFFFF   10000.0     19.07      0.00      -1.0      -1.0
JOI  29109    FFFFFF   10000.0    -12.50      0.00      -1.0      -1.0
JOI  29108    FFFFFF   10000.0    258.01      0.00      -1.0      -1.0
JOI  29107    FFFFFF   10000.0    252.66      0.00      -1.0      -1.0
JOI  29106    FFFFFF   10000.0    214.47      0.00      -1.0      -1.0
JOI  29105    FFFFFF   10000.0    200.11      0.00      -1.0      -1.0
JOI  29104    FFFFFF   10000.0    218.38      0.00      -1.0      -1.0
JOI  29103    FFFFFF   10000.0    318.50      0.00      -1.0      -1.0
JOI  29102    FFFFFF   10000.0    319.14      0.00      -1.0      -1.0
JOI  29101    FFFFFF   10000.0    175.79      0.00      -1.0      -1.0
================================================================================
================================================================================
 WEI DATA   231403.5            231403.4 7.223E+11 1.055E+12 1.776E+12
================================================================================
```

RBFB_Fix_1.txt

	NODE	X-WEIGHT (X)	Y-WEIGHT (Y)	Z-WEIGHT (Z)	X-INERTIA (X-XAXIS)	Y-INERTIA (Y-YAXIS)	Z-INERTIA (Z-ZAXIS)
BASEMAT		50053.0		52701.0	1.157E+11	1.963E+11	3.113E+11
WEI	2	33589.0	0.0	36237.0	8.271E+10	1.291E+11	2.111E+11
WEI	1	16464.0	0.0	16464.0	3.294E+10	6.723E+10	1.002E+11
WEI	111	0.1	0.0	0.1	0.1	0.1	0.1
PEDESTAL		11422.2		12340.4	6.486E+09	6.487E+09	1.264E+10

CONTINUE TO NEXT PAGE

*** DAC3N *** < G-2 > INPT DATA ECHO

WEI	303	5627.1	0.0	7256.9	3.319E+09	3.320E+09	6.564E+09
WEI	377	0.1	0.0	0.1	0.1	0.1	0.1
WEI	302	3060.7	0.0	2756.6	1.682E+09	1.683E+09	3.227E+09
WEI	376	1.375	0.0	1.375	0.001	0.001	0.001
WEI	301	2732.9	0.0	2325.4	1.484E+09	1.485E+09	2.853E+09
RCCV		64866.0		50371.4	1.422E+11	1.389E+11	2.735E+11
WEI	209	7171.1	0.0	5000.3	1.083E+10	3.993E+09	2.278E+10
WEI	208	20110.3	0.0	18015.9	3.221E+10	3.625E+10	6.060E+10
EI	273	0.1	0.0	0.1	0.1	0.1	0.1
WEI	206	8151.7	0.0	6239.3	2.058E+10	1.982E+10	3.995E+10
WEI	205	4046.9	0.0	3534.9	1.173E+10	1.170E+10	1.723E+10
WEI	204	6830.3	0.0	3628.9	1.703E+10	1.703E+10	3.389E+10
WEI	203	7627.0	0.0	4261.6	1.899E+10	1.899E+10	3.773E+10
WEI	202	5551.7	0.0	4687.0	1.575E+10	1.591E+10	3.134E+10
WEI	201	5376.9	0.0	5003.4	1.512E+10	1.517E+10	3.001E+10
RBFB		105062.3		86277.7	4.579E+11	7.136E+11	1.179E+12
WEI	110	9141.4	0.0	4677.1	3.902E+10	4.483E+10	8.822E+10
WEI	109	9662.6	0.0	9179.0	5.578E+10	6.119E+10	1.156E+11
WEI	108	13588.7	0.0	14072.3	4.967E+10	7.227E+10	1.227E+11
WEI	107	7109.1	0.0	4249.1	3.312E+10	5.710E+10	9.590E+10
WEI	106	7033.3	0.0	5797.8	3.552E+10	5.095E+10	8.830E+10
WEI	105	6591.7	0.0	6079.7	3.136E+10	5.106E+10	8.192E+10
WEI	104	7053.4	0.0	6488.0	3.432E+10	5.343E+10	8.720E+10
WEI	103	12313.1	0.0	6327.6	5.082E+10	9.050E+10	1.404E+11
WEI	102	15873.6	0.0	13743.6	6.253E+10	1.126E+11	1.740E+11
WEI	101	16695.4	0.0	15663.5	6.578E+10	1.197E+11	1.843E+11
OSCILLATOR				31414.3			
WEI	9101	0.1	0.1	2997.2	0.1	0.1	0.1
WEI	9102	0.1	0.1	449.3	0.1	0.1	0.1
WEI	9103	0.1	0.1	597.4	0.1	0.1	0.1
WEI	9104	0.1	0.1	277.9	0.1	0.1	0.1
WEI	9105	0.1	0.1	19.0	0.1	0.1	0.1
WEI	9106	0.1	0.1	123.5	0.1	0.1	0.1
WEI	9081	0.1	0.1	3981.2	0.1	0.1	0.1
WEI	9071	0.1	0.1	2041.8	0.1	0.1	0.1
WEI	9072	0.1	0.1	273.2	0.1	0.1	0.1
WEI	9073	0.1	0.1	72.1	0.1	0.1	0.1
WEI	9074	0.1	0.1	351.0	0.1	0.1	0.1
WEI	9075	0.1	0.1	122.0	0.1	0.1	0.1

RBFB_Fix_1.txt

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WEI   9061       0.1       0.1      591.2       0.1       0.1       0.1
WEI   9062       0.1       0.1      149.4       0.1       0.1       0.1
WEI   9063       0.1       0.1      989.8       0.1       0.1       0.1
WEI   9064       0.1       0.1     3403.0       0.1       0.1       0.1

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
WEI   9051       0.1       0.1     1024.0       0.1       0.1       0.1

WEI   9041       0.1       0.1     1130.8       0.1       0.1       0.1

WEI   9031       0.1       0.1     1124.2       0.1       0.1       0.1
WEI   9032       0.1       0.1     8730.1       0.1       0.1       0.1
WEI   9033       0.1       0.1        6.5       0.1       0.1       0.1

WEI   9021       0.1       0.1      372.7       0.1       0.1       0.1
WEI   9022       0.1       0.1      110.7       0.1       0.1       0.1
WEI   9023       0.1       0.1     1121.3       0.1       0.1       0.1
WEI   9024       0.1       0.1      608.2       0.1       0.1       0.1

WEI   9011       0.1       0.1      377.7       0.1       0.1       0.1
WEI   9012       0.1       0.1      369.3       0.1       0.1       0.1
================================================================================
================================================================================
 BML DATA SHEAR
================================================================================
      INUM INOD JNOD KNOD IRGD IMAT ISCT                    WW
 BASEMAT
BML   1021    2    119021 1021   20 1021

 PEDESTAL
BML   1303  303  37719303 1303   10 1303
BML   1377  377  30219303 1377   10 1303
BML   1302  302  37619302 1302   10 1302
BML   1376  376  30119302 1376   10 1302
BML   1301  301    219301 1301   10 1301

 RCCV
BML   1209  209  20819209 1209   10 1209
BML   1208  208  20619208 1208   10 1208
 ML   1273  273  20619208 1273   10 1208
BML   1206  206  20519206 1206   10 1206
BML   1205  205  20419205 1205   10 1205
BML   1204  204  20319204 1204   10 1204
BML   1203  203  20219203 1203   10 1203
BML   1202  202  20119202 1202   10 1202
BML   1201  201    219201 1201   10 1201

 RBFB
BML   1110  110  10919110 1110   10 1110
BML   1109  109  10819109 1109   10 1109
BML   1108  108  10719108 1108   10 1108
BML   1107  107  10619107 1107   10 1107
BML   1106  106  10519106 1106   10 1106
BML   1105  105  10419105 1105   10 1105
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RBFB_Fix_1.txt

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BML   1104  104  10319104 1104   10 1104
BML   1103  103  10219103 1103   10 1103
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
BML   1102  102  10119102 1102   10 1102
BML   1101  101    219101 1101   10 1101

=============================================================================
 BML DATA AXIAL
=============================================================================
      INUM INOD JNOD KNOD IRGD IMAT ISCT                    WW
 BASEMAT
BML   2021    2    129021 2021   20 2021

 PEDESTAL
BML   2303  303  37729303 2303   10 2303
BML   2377  377  30229303 2377   10 2303
BML   2302  302  37629302 2302   10 2302
BML   2376  376  30129302 2376   10 2302
BML   2301  301    229301 2301   10 2301

 RCCV
BML   2209  209  20829209 2209   10 2209
BML   2208  208  20629208 2208   10 2208
 ML   2273  273  20629208 2273   10 2208
BML   2206  206  20529206 2206   10 2206
BML   2205  205  20429205 2205   10 2205
BML   2204  204  20329204 2204   10 2204
BML   2203  203  20229203 2203   10 2203
BML   2202  202  20129202 2202   10 2202
BML   2201  201    229201 2201   10 2201

 RBFB
BML   2110  110  10929110 2110   10 2110
BML   2109  109  10829109 2109   10 2109
BML   2108  108  10729108 2108   10 2108
BML   2107  107  10629107 2107   10 2107
BML   2106  106  10529106 2106   10 2106
BML   2105  105  10429105 2105   10 2105
BML   2104  104  10329104 2104   10 2104
BML   2103  103  10229103 2103   10 2103
BML   2102  102  10129102 2102   10 2102
BML   2101  101    229101 2101   10 2101
=============================================================================
 BML DATA STICK TO STICK
=============================================================================
 RBFB TO RCCV
BML   9129  109  20919129        10 9999
BML   9128  108  20819128        10 9999
BML   9126  106  20619126        10 9999
BML   9125  105  20519125        10 9999
BML   9124  104  20419124        10 9999
BML   9123  103  20319123        10 9999
BML   9122  102  20219122        10 9999
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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RBFB_Fix_1.txt

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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
          BML    9121  101  20119121        10 9999
           RCCV TO PEDESTAL
          BML    9233  203  30319233        10 9999
          BML    9232  202  30219232        10 9999
          BML    9231  201  30119231        10 9999
           RCCV TO PEDESTAL DF
          BML    9301  206  70119701        10 9999
          ================================================================================
          ================================================================================
           BSCT DATA
          ================================================================================
                ISCT         SA         SB         SC         JA         IB         IC
                            (Z)        (X)        (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
           RIGID BEAM
          BSCT  9999   2.0E+11        0.1   1.0E+11        0.1   1.0E+20        0.1

          ================================================================================
           BSCT DATA SHEAR BEAM
          ================================================================================
                ISCT         SA         SB         SC         JA         IB         IC
                            (Z)        (X)        (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
           BASEMAT
          BSCT  1021        0.1 3.430E+07 3.430E+07 1.554E+14 6.863E+13 1.401E+14

           PEDESTAL             1.469E+06 1.469E+06 1.359E+12 7.005E+11 7.005E+11
          BSCT  1303        0.1 5.013E+05 5.013E+05 4.636E+11 2.390E+11 2.390E+11
          BSCT  1302        0.1 4.553E+05 4.553E+05 4.210E+11 2.171E+11 2.171E+11
          BSCT  1301        0.1 5.127E+05 5.127E+05 4.742E+11 2.445E+11 2.445E+11

           RCCV                 8.991E+06 8.991E+06 5.693E+13 2.961E+13 2.961E+13
          BSCT  1209        0.1 1.184E+06 1.184E+06 5.637E+11 1.351E+12 1.351E+12
          BSCT  1208        0.1 8.835E+05 8.835E+05 6.379E+12 3.198E+12 3.198E+12
          BSCT  1206        0.1 1.122E+06 1.122E+06 8.097E+12 4.060E+12 4.060E+12
          BSCT  1205        0.1 1.194E+06 1.194E+06 8.619E+12 4.322E+12 4.322E+12
          BSCT  1204        0.1 1.194E+06 1.194E+06 8.619E+12 4.322E+12 4.322E+12
          BSCT  1203        0.1 1.152E+06 1.152E+06 8.317E+12 4.170E+12 4.170E+12
          BSCT  1202        0.1 1.167E+06 1.167E+06 8.428E+12 4.226E+12 4.226E+12
          BSCT  1201        0.1 1.095E+06 1.095E+06 7.903E+12 3.963E+12 3.963E+12

           RBFB                 2.099E+07 2.207E+07 2.610E+14 8.281E+13 1.548E+14
          BSCT  1110        0.1 9.423E+05 7.800E+05 1.723E+13 2.579E+12 5.713E+12
          BSCT  1109        0.1 9.800E+05 9.800E+05 3.776E+13 3.557E+12 6.028E+12
          BSCT  1108        0.1 1.596E+06 1.383E+06 1.338E+13 4.852E+12 1.140E+13
          BSCT  1107        0.1 1.823E+06 1.704E+06 1.833E+13 6.206E+12 1.119E+13
          BSCT  1106        0.1 1.823E+06 1.960E+06 2.056E+13 7.083E+12 1.204E+13
          BSCT  1105        0.1 1.844E+06 1.960E+06 2.068E+13 7.083E+12 1.218E+13
          BSCT  1104        0.1 1.797E+06 1.908E+06 1.972E+13 6.896E+12 1.186E+13
          BSCT  1103        0.1 3.259E+06 3.566E+06 3.311E+13 1.415E+13 2.754E+13
          BSCT  1102        0.1 3.244E+06 3.667E+06 3.319E+13 1.427E+13 2.747E+13
          BSCT  1101        0.1 3.680E+06 4.164E+06 4.708E+13 1.613E+13 2.934E+13
          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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RBFB_Fix_1.txt

*** DAC3N *** < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

 BSCT DATA AXIAL BEAM
      ISCT          SA          SB          SC          JA          IB          IC
                    (Z)         (X)         (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
 BASEMAT
BSCT  2021 3.430E+07         0.1         0.1         0.1         0.1         0.1

 PEDESTAL  2.939E+06
BSCT  2303 1.003E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2302 9.106E+05         0.1         0.1         0.1         0.1         0.1
BSCT  2301 1.025E+06         0.1         0.1         0.1         0.1         0.1

 RCCV       1.680E+07
BSCT  2209 1.184E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2208 1.767E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2206 2.243E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2205 2.388E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2204 2.388E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2203 2.304E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2202 2.335E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2201 2.189E+06         0.1         0.1         0.1         0.1         0.1

 RBFB       4.135E+07
BSCT  2110 1.682E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2109 1.920E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2108 2.887E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2107 3.418E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2106 3.673E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2105 3.694E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2104 3.595E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2103 6.589E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2102 6.659E+06         0.1         0.1         0.1         0.1         0.1
BSCT  2101 7.231E+06         0.1         0.1         0.1         0.1         0.1

 SPL DATA
      INUM INOD JNOD KNOD IRGD IMAT IKND
SPL    555  108  208             555    5

 OSCILLATOR
SPL   9101  110 9101            9101    3
SPL   9102  110 9102            9102    3
SPL   9103  110 9103            9103    3
SPL   9104  110 9104            9104    3
SPL   9105  110 9105            9105    3
SPL   9106  110 9106            9106    3

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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*** DAC3N *** < G-2 > INPT DATA ECHO

RBFB_Fix_1.txt

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
SPL   9081  208 9081           9081    3

SPL   9071  107 9071           9071    3
SPL   9072  107 9072           9072    3
SPL   9073  107 9073           9073    3
SPL   9074  107 9074           9074    3
SPL   9075  107 9075           9075    3

SPL   9061  106 9061           9061    3
SPL   9062  106 9062           9062    3
SPL   9063  106 9063           9063    3
SPL   9163  206 9063           9163    3
SPL   9064  206 9064           9064    3
SPL   9164  701 9064           9164    3

SPL   9051  105 9051           9051    3
SPL   9151  205 9051           9151    3

SPL   9041  104 9041           9041    3
SPL   9141  204 9041           9141    3

SPL   9031  103 9031           9031    3
SPL   9032  103 9032           9032    3
SPL   9132  203 9032           9132    3
SPL   9033  203 9033           9033    3
SPL   9133  303 9033           9133    3

SPL   9021  102 9021           9021    3
SPL   9022  102 9022           9022    3
SPL   9023  102 9023           9023    3
SPL   9123  202 9023           9123    3
SPL   9024  202 9024           9024    3
SPL   9124  302 9024           9124    3

SPL   9011  201 9011           9011    3
SPL   9111  301 9011           9111    3
SPL   9012  201 9012           9012    3
SPL   9112  301 9012           9112    3
=============================================================================
=============================================================================
 MAT DATA
=============================================================================
      IMAT        GG        EE RAY-DAMP1 RAY-DAMP2 ENRG-DAMP
BMAT    10  1.21E+02  2.83E+02      -1.0      -1.0      0.07
BMAT    20  1.08E+02  2.54E+02      -1.0      -1.0      0.07

      IMAT      RSTF                HDM1      HDM2      HENR
SMAT   555  4.57E+10                -1.0      -1.0      0.07
=============================================================================
 OSCILLATOR                         -1.0      -1.0      0.07
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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RBFB_Fix_1.txt

```
SMAT  9101 9.125E+02                -1.0      -1.0      0.07
SMAT  9102 4.954E+02                -1.0      -1.0      0.07
SMAT  9103 2.779E+03                -1.0      -1.0      0.07
SMAT  9104 4.424E+03                -1.0      -1.0      0.07
SMAT  9105 4.825E+02                -1.0      -1.0      0.07
SMAT  9106 4.723E+03                -1.0      -1.0      0.07

SMAT  9081 1.119E+05                -1.0      -1.0      0.07

SMAT  9071 2.250E+03                -1.0      -1.0      0.07
SMAT  9072 5.029E+02                -1.0      -1.0      0.07
SMAT  9073 4.383E+02                -1.0      -1.0      0.07
SMAT  9074 7.532E+03                -1.0      -1.0      0.07
SMAT  9075 4.057E+03                -1.0      -1.0      0.07

SMAT  9061 3.456E+03                -1.0      -1.0      0.07
SMAT  9062 6.216E+03                -1.0      -1.0      0.07
SMAT  9063 1.128E+04                -1.0      -1.0      0.07
SMAT  9163 1.128E+04                -1.0      -1.0      0.07
SMAT  9064 1.264E+04                -1.0      -1.0      0.07
SMAT  9164 1.264E+04                -1.0      -1.0      0.07

SMAT  9051 1.146E+04                -1.0      -1.0      0.07
SMAT  9151 1.146E+04                -1.0      -1.0      0.07

SMAT  9041 1.146E+04                -1.0      -1.0      0.07
SMAT  9141 1.146E+04                -1.0      -1.0      0.07

SMAT  9031 3.150E+04                -1.0      -1.0      0.07
SMAT  9032 8.931E+04                -1.0      -1.0      0.07
SMAT  9132 8.931E+04                -1.0      -1.0      0.07
SMAT  9033 8.837E+01                -1.0      -1.0      0.07
SMAT  9133 8.837E+01                -1.0      -1.0      0.07

SMAT  9021 6.230E+03                -1.0      -1.0      0.07
SMAT  9022 3.852E+03                -1.0      -1.0      0.07
SMAT  9023 1.177E+04                -1.0      -1.0      0.07
SMAT  9123 1.177E+04                -1.0      -1.0      0.07
SMAT  9024 9.448E+03                -1.0      -1.0      0.07
SMAT  9124 9.448E+03                -1.0      -1.0      0.07

SMAT  9011 3.774E+03                -1.0      -1.0      0.07
SMAT  9111 3.774E+03                -1.0      -1.0      0.07
SMAT  9012 5.145E+03                -1.0      -1.0      0.07
SMAT  9112 5.145E+03                -1.0      -1.0      0.07
=============================================================================
=============================================================================
 RIGD DATA SHEAR
=============================================================================
      IRGD        XI        YI        ZI        XJ        YJ        ZJ
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
 BASEMAT
RIGD  1021   -199.43   -143.38      0.00      0.00      0.00      0.00
```

RBFB_Fix_1.txt

PEDESTAL							
RIGD	1303	0.00	-0.08	0.00	0.00	-0.04	0.00
RIGD	1377	0.00	-0.04	0.00	0.00	-0.04	0.00
RIGD	1302	0.00	-0.04	0.00	1.73	-0.04	0.00
RIGD	1376	1.73	-0.04	0.00	1.73	-0.04	0.00
RIGD	1301	1.73	-0.04	0.00	-1249.43	-143.38	0.00
RCCV							
RIGD	1209	16.40	2.09	0.00	-167.01	-1.98	0.00
RIGD	1208	-167.01	-1.98	0.00	-141.35	-1.65	0.00
IGD	1273	-141.35	-1.65	0.00	-141.35	-1.65	0.00
RIGD	1206	-141.35	-1.65	0.00	5.66	2.05	0.00
RIGD	1205	5.66	2.05	0.00	0.00	0.00	0.00
RIGD	1204	0.00	0.00	0.00	0.00	0.00	0.00
RIGD	1203	0.00	0.00	0.00	20.50	25.60	0.00
RIGD	1202	20.50	25.60	0.00	-32.79	-2.42	0.00
RIGD	1201	-32.79	-2.42	0.00	-1249.43	-143.38	0.00
RBFB							
RIGD	1110	0.00	94.00	0.00	25.33	74.93	0.00
RIGD	1109	25.33	-44.08	0.00	-350.80	123.80	0.00
RIGD	1108	525.12	146.82	0.00	-1043.59	-6.78	0.00
RIGD	1107	-273.36	75.65	0.00	1019.28	88.20	0.00
RIGD	1106	498.12	88.20	0.00	422.91	53.27	0.00
RIGD	1105	422.91	25.46	0.00	428.12	63.09	0.00
RIGD	1104	522.33	126.70	0.00	-456.91	175.18	0.00
RIGD	1103	262.94	172.11	0.00	197.69	-50.76	0.00
RIGD	1102	201.11	-39.60	0.00	129.22	-17.79	0.00
RIGD	1101	8.86	-127.28	0.00	572.71	-128.53	0.00

RIGD DATA AXIAL

	IRGD	XI	YI	ZI	XJ	YJ	ZJ
BASEMAT							
RIGD	2021	-199.43	-143.38	0.00	0.00	0.00	0.00
PEDESTAL							
RIGD	2303	0.00	-0.08	0.00	0.00	-0.04	0.00
RIGD	2377	0.00	-0.04	0.00	0.00	-0.04	0.00
RIGD	2302	0.00	-0.04	0.00	1.73	-0.04	0.00
RIGD	2376	1.73	-0.04	0.00	1.73	-0.04	0.00
RIGD	2301	1.73	-0.04	0.00	-1249.43	-143.38	0.00
RCCV							
RIGD	2209	16.40	2.09	0.00	-167.01	-1.98	0.00
RIGD	2208	-167.01	-1.98	0.00	-141.35	-1.65	0.00

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*** DAC3N *** < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

IGD	2273	-141.35	-1.65	0.00	-141.35	-1.65	0.00
RIGD	2206	-141.35	-1.65	0.00	5.66	2.05	0.00
RIGD	2205	5.66	2.05	0.00	0.00	0.00	0.00
RIGD	2204	0.00	0.00	0.00	0.00	0.00	0.00
RIGD	2203	0.00	0.00	0.00	20.50	25.60	0.00
RIGD	2202	20.50	25.60	0.00	-32.79	-2.42	0.00

```
RIGD  2201    -32.79     -2.42      0.00  -1249.43   -143.38      0.00

 RBFB
RIGD  2110    574.47     19.07      0.00    599.80     -0.01      0.00
RIGD  2109    550.33    -31.58      0.00    174.20    136.30      0.00
RIGD  2108    968.59    406.80      0.00   -600.13    253.20      0.00
RIGD  2107   -256.37    247.86      0.00   1036.27    260.41      0.00
RIGD  2106    345.41    222.21      0.00    270.19    187.28      0.00
RIGD  2105    270.62    172.92      0.00    275.84    210.55      0.00
RIGD  2104    300.49    228.83      0.00   -678.76    277.30      0.00
RIGD  2103    -39.28    377.42      0.00   -104.53    154.55      0.00
RIGD  2102    -79.24    155.20      0.00   -151.14    177.01      0.00
RIGD  2101   -204.36     33.65      0.00    359.48     32.41      0.00
================================================================================
================================================================================
 RSW JOI DATA
================================================================================
      INUM    XYZXYZ   X-COORD    Y-COORD    Z-COORD RAY-DAMP1 RAY-DAMP2
JOI   7777    FFFFFF    1000.0       0.08       0.00      -1.0      -1.0

JOI    701                0.00       0.08    1750.00      -1.0      -1.0
JOI    702                0.00       0.08    1450.00      -1.0      -1.0
JOI    703                0.00       0.08    1150.00      -1.0      -1.0
JOI    704                0.00       0.08     850.00      -1.0      -1.0
JOI    705                0.00       0.08     746.25      -1.0      -1.0
JOI    706                0.00       0.08     465.00      -1.0      -1.0
JOI    707                0.00       0.08    2418.00      -1.0      -1.0
JOI    708                0.00       0.08    2020.00      -1.0      -1.0
JOI    709                0.00       0.08    1577.50      -1.0      -1.0
JOI    710                0.00       0.08    1135.00      -1.0      -1.0
JOI    711                0.00       0.08     746.25      -1.0      -1.0
JOI    712                0.00       0.08     465.00      -1.0      -1.0
JOI    713                0.00       0.08     241.65      -1.0      -1.0
JOI    714                0.00       0.08     196.00      -1.0      -1.0
JOI    715                0.00       0.08     -80.00      -1.0      -1.0

JOI   7106    FFFFFF   1000.00       1.65       0.00      -1.0      -1.0
================================================================================
================================================================================
 RSW WEI DATA            6957.0
================================================================================
      NODE  X-WEIGHT  Y-WEIGHT  Z-WEIGHT X-INERTIA Y-INERTIA Z-INERTIA
              (X)       (Y)       (Z)    (X-XAXIS) (Y-YAXIS) (Z-ZAXIS)
WEI    701    2015.0       0.0     841.0 5.670E+08 5.670E+08 1.130E+09
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
WEI    702     727.0       0.0     727.0 2.090E+08 2.090E+08 4.060E+08
WEI    703     710.0       0.0     707.0 2.030E+08 2.030E+08 3.960E+08
WEI    704     503.0       0.0     475.0 1.420E+08 1.420E+08 2.810E+08
WEI    705     480.0       0.0     454.0 1.360E+08 1.360E+08 2.680E+08
WEI    706     351.0       0.0     408.0 9.860E+07 9.860E+07 1.960E+08
WEI    707     120.0       0.0     120.0 1.380E+07 1.380E+07 2.680E+07
WEI    708     317.7       0.0     296.7 4.910E+07 4.910E+07 6.930E+07
WEI    709     223.0       0.0     223.0 3.950E+07 3.950E+07 4.980E+07
WEI    710     317.0       0.0     317.0 1.130E+07 1.130E+07 7.840E+06
```

RBFB_Fix_1.txt

```
WEI     711      455.0        0.0      455.0 1.010E+07 1.010E+07 1.160E+07
WEI     712      483.0        0.0      483.0 5.770E+07 5.770E+07 1.100E+08
WEI     713      186.0        0.0      186.0 2.130E+07 2.130E+07 4.200E+07
WEI     714       77.0        0.0       77.0 6.850E+06 6.850E+06 1.360E+07
WEI     715      108.0        0.0      108.0 9.870E+06 9.870E+06 1.890E+07
=============================================================================
=============================================================================
 RSW BML DATA
=============================================================================
      INUM INOD JNOD KNOD IRGD IMAT ISCT                    WW
BML    701  701  702 7777        71  701                  0.0
BML    702  702  703 7777        71  702                  0.0
BML    703  703  704 7777        71  703                  0.0
BML    704  704  705 7777        71  704                  0.0
BML    705  705  706 7777        71  705                  0.0
BML    707  707  708 7777        71  707                  0.0
BML    708  708  709 7777        71  708                  0.0
BML    709  709  710 7777        71  709                  0.0
BML    710  710  711 7777        71  710                  0.0
BML    711  711  712 7777        71  711                  0.0
BML    712  712  713 7777        71  712                  0.0
BML    713  713  714 7777        71  713                  0.0
BML    714  714  715 7777        71  714                  0.0
=============================================================================
=============================================================================
 RSW BSCT DATA
=============================================================================
      ISCT         SA         SB         SC         JA         IB         IC
                  (Z)        (X)        (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
 RIGID BEAM
BSCT  7777   2.0E+11        0.1   1.0E+11        0.1   1.0E+20        0.1

BSCT   701 3.000E+04 1.500E+04 1.500E+04 1.680E+10 8.380E+09 8.380E+09
BSCT   702 3.000E+04 1.500E+04 1.500E+04 1.680E+10 8.380E+09 8.380E+09
BSCT   703 3.000E+04 1.500E+04 1.500E+04 1.680E+10 8.380E+09 8.380E+09
BSCT   704 3.000E+04 1.500E+04 1.500E+04 1.680E+10 8.380E+09 8.380E+09
BSCT   705 3.000E+04 1.500E+04 1.500E+04 1.680E+10 8.380E+09 8.380E+09
BSCT   707 4.760E+04 2.380E+04 2.380E+04 1.060E+10 5.310E+09 5.310E+09
BSCT   708 4.760E+04 2.380E+04 2.380E+04 1.060E+10 5.310E+09 5.310E+09
BSCT   709 4.760E+04 2.380E+04 2.380E+04 1.060E+10 5.310E+09 5.310E+09
BSCT   710 5.800E+04 2.900E+04 2.900E+04 1.300E+10 7.170E+09 7.170E+09
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
BSCT   711 7.800E+04 3.900E+04 3.900E+04 1.780E+10 8.910E+09 8.910E+09
BSCT   712 6.740E+04 3.370E+04 3.370E+04 1.530E+10 7.260E+09 7.260E+09
BSCT   713 6.260E+04 3.130E+04 3.130E+04 1.420E+10 7.080E+09 7.080E+09
BSCT   714 4.200E+04 2.100E+04 2.100E+04 7.340E+09 3.670E+09 3.670E+09
=============================================================================
=============================================================================
 RSW SPL DATA
=============================================================================
      INUM INOD JNOD KNOD IRGD IMAT IKND
=============================================================================
=============================================================================
 RSW LNK DATA
```

RBFB_Fix_1.txt

```
LNKXX  706  303
LNKYY  706  303
LNKZZ  706  303
LNKRX  706  303
LNKRY  706  303
LNKRZ  706  303

LNKXX  705  711
LNKYY  705  711
LNKZZ  705  711
LNKRX  705  711
LNKRY  705  711
LNKRZ  705  711

LNKXX  706  712
LNKYY  706  712
LNKZZ  706  712
LNKRX  706  712
LNKRY  706  712
LNKRZ  706  712

LNKXX  713  377
LNKYY  713  377
LNKZZ  713  377
LNKRX  713  377
LNKRY  713  377
LNKRZ  713  377
```

RSW MAT DATA

```
      IMAT        GG        EE RAY-DAMP1 RAY-DAMP2 ENRG-DAMP
BMAT    71 7.8440E+2 2.0394E+3      -1.0      -1.0      0.04
```

RPV JOI DATA

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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*** DAC3N *** < G-2 > INPT DATA ECHO

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
      INUM    XYZXYZ   X-COORD   Y-COORD   Z-COORD RAY-DAMP1 RAY-DAMP2
JOI   8888    FFFFFF    1000.0      0.08      0.00      -1.0      -1.0

JOI    801              0.00      0.08   2764.00      -1.0      -1.0
JOI    802              0.00      0.08   2679.20      -1.0      -1.0
JOI    803              0.00      0.08   2594.40      -1.0      -1.0
JOI    804              0.00      0.08   2503.00      -1.0      -1.0
JOI    805              0.00      0.08   2431.88      -1.0      -1.0
JOI    806              0.00      0.08   2227.60      -1.0      -1.0
JOI    807              0.00      0.08   2182.47      -1.0      -1.0
JOI    808              0.00      0.08   2020.00      -1.0      -1.0
JOI    809              0.00      0.08   1952.78      -1.0      -1.0
JOI    810              0.00      0.08   1726.77      -1.0      -1.0
JOI    811              0.00      0.08   1636.50      -1.0      -1.0
JOI    812              0.00      0.08   1451.00      -1.0      -1.0
```

RBFB_Fix_1.txt

```
JOI    813              0.00      0.08    1249.10      -1.0      -1.0
JOI    814              0.00      0.08    1047.20      -1.0      -1.0
JOI    815              0.00      0.08     845.30      -1.0      -1.0
JOI    816              0.00      0.08     780.71      -1.0      -1.0
JOI    817              0.00      0.08     711.10      -1.0      -1.0
JOI    818              0.00      0.08     640.10      -1.0      -1.0
JOI    819              0.00      0.08     569.10      -1.0      -1.0
JOI    820              0.00      0.08     498.10      -1.0      -1.0
JOI    821              0.00      0.08     427.13      -1.0      -1.0
JOI    822              0.00      0.08     375.93      -1.0      -1.0
JOI    823              0.00      0.08     321.50      -1.0      -1.0
JOI    824              0.00      0.08     236.50      -1.0      -1.0
JOI    825              0.00      0.08     178.50      -1.0      -1.0
JOI    826              0.00      0.08     120.00      -1.0      -1.0
JOI    827              0.00      0.08      76.57      -1.0      -1.0
JOI    828              0.00      0.08     -13.15      -1.0      -1.0
JOI    829              0.00      0.08    2182.47      -1.0      -1.0
JOI    830              0.00      0.08    2020.00      -1.0      -1.0
JOI    831              0.00      0.08    1952.78      -1.0      -1.0
JOI    832              0.00      0.08    1726.77      -1.0      -1.0
JOI    833              0.00      0.08    1636.50      -1.0      -1.0
JOI    834              0.00      0.08    1451.00      -1.0      -1.0
JOI    835              0.00      0.08    1249.10      -1.0      -1.0
JOI    836              0.00      0.08    1047.20      -1.0      -1.0
JOI    837              0.00      0.08     845.30      -1.0      -1.0
JOI    838              0.00      0.08     780.71      -1.0      -1.0
JOI    839              0.00      0.08     711.10      -1.0      -1.0
JOI    840              0.00      0.08     640.10      -1.0      -1.0
JOI    841              0.00      0.08     569.10      -1.0      -1.0
JOI    842              0.00      0.08     498.10      -1.0      -1.0
JOI    843              0.00      0.08     427.13      -1.0      -1.0
JOI    844              0.00      0.08     375.93      -1.0      -1.0
JOI    845              0.00      0.08     321.50      -1.0      -1.0
JOI    846              0.00      0.08     236.50      -1.0      -1.0
JOI    847              0.00      0.08     789.60      -1.0      -1.0
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
JOI    848              0.00      0.08     780.71      -1.0      -1.0
JOI    849              0.00      0.08     711.10      -1.0      -1.0
JOI    850              0.00      0.08     640.10      -1.0      -1.0
JOI    851              0.00      0.08     569.10      -1.0      -1.0
JOI    852              0.00      0.08     498.10      -1.0      -1.0
JOI    853              0.00      0.08     427.13      -1.0      -1.0
JOI    854              0.00      0.08     417.84      -1.0      -1.0
JOI    855              0.00      0.08     406.50      -1.0      -1.0
JOI    856              0.00      0.08     321.50      -1.0      -1.0
JOI    857              0.00      0.08     236.50      -1.0      -1.0
JOI    858              0.00      0.08     178.50      -1.0      -1.0
JOI    859              0.00      0.08     120.00      -1.0      -1.0
JOI    860              0.00      0.08      76.57      -1.0      -1.0
JOI    861              0.00      0.08     -78.80      -1.0      -1.0
JOI    862              0.00      0.08     -78.80      -1.0      -1.0
JOI    863              0.00      0.08    -144.30      -1.0      -1.0
JOI    864              0.00      0.08    -144.30      -1.0      -1.0
JOI    865              0.00      0.08    -209.80      -1.0      -1.0
```

RBFB_Fix_1.txt

JOI	866		0.00	0.08	-209.80	-1.0	-1.0
JOI	867		0.00	0.08	-275.30	-1.0	-1.0
JOI	868		0.00	0.08	-275.30	-1.0	-1.0
JOI	869		0.00	0.08	-347.15	-1.0	-1.0
JOI	870		0.00	0.08	-347.15	-1.0	-1.0
JOI	871		0.00	0.08	-422.37	-1.0	-1.0
JOI	872		0.00	0.08	-422.37	-1.0	-1.0
OI	873	FFFFFF	0.00	0.08	2503.00	-1.0	-1.0
OI	874	FFFFFF	0.00	0.08	2020.00	-1.0	-1.0
OI	875	FFFFFF	0.00	0.08	746.25	-1.0	-1.0
OI	876	FFFFFF	0.00	0.08	-275.30	-1.0	-1.0
JOI	8047		0.00	0.08	789.60	-1.0	-1.0
JOI	8054		0.00	0.08	417.84	-1.0	-1.0
JOI	8055		0.00	0.08	417.84	-1.0	-1.0
JOI	8059		0.00	0.08	120.00	-1.0	-1.0

RPV WEI DATA 1801.154 2185.280

	NODE	X-WEIGHT (X)	Y-WEIGHT (Y)	Z-WEIGHT (Z)	X-INERTIA (X-XAXIS)	Y-INERTIA (Y-YAXIS)	Z-INERTIA (Z-ZAXIS)
WEI	801	15.919	15.919	15.919	0.00001	0.00001	0.00000
WEI	802	30.353	30.353	30.353	0.00001	0.00001	0.00000
WEI	803	48.234	48.234	48.234	0.00001	0.00001	0.00000
WEI	804	60.101	60.101	60.101	0.00001	0.00001	0.00000
WEI	805	59.671	59.671	59.671	0.00001	0.00001	0.00000
WEI	806	90.726	90.726	90.726	0.00001	0.00001	0.00000
WEI	807	33.913	33.913	33.913	0.00001	0.00001	0.00000
WEI	808	45.199	45.199	45.199	0.00001	0.00001	0.00000
WEI	809	48.260	48.260	48.260	0.00001	0.00001	0.00000
WEI	810	52.630	52.630	52.630	0.00001	0.00001	0.00000

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

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*** DAC3N *** < G-2 > INPT DATA ECHO

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WEI	811	45.050	45.050	45.050	0.00001	0.00001	0.00000
WEI	812	63.285	63.285	63.285	0.00001	0.00001	0.00000
WEI	813	65.964	65.964	65.964	0.00001	0.00001	0.00000
WEI	814	65.964	65.964	65.964	0.00001	0.00001	0.00000
WEI	815	58.377	58.377	58.377	0.00001	0.00001	0.00000
WEI	816	21.923	21.923	21.923	0.00001	0.00001	0.00000
WEI	817	22.970	22.970	22.970	0.00001	0.00001	0.00000
WEI	818	23.197	23.197	23.197	0.00001	0.00001	0.00000
WEI	819	23.197	23.197	23.197	0.00001	0.00001	0.00000
WEI	820	23.192	23.192	23.192	0.00001	0.00001	0.00000
WEI	821	19.958	19.958	19.958	0.00001	0.00001	0.00000
WEI	822	17.256	17.256	17.256	0.00001	0.00001	0.00000
WEI	823	22.777	22.777	22.777	0.00001	0.00001	0.00000
WEI	824	27.033	27.033	27.033	0.00001	0.00001	0.00000
WEI	825	28.295	28.295	143.190	0.00001	0.00001	0.00000
WEI	826	28.991	28.991	28.991	0.00001	0.00001	0.00000
WEI	827	47.632	47.632	86.849	0.00001	0.00001	0.00000
WEI	828	40.156	40.156	70.694	0.00001	0.00001	0.00000
WEI	829	11.591	11.591	11.591	0.00001	0.00001	0.00000
WEI	830	15.951	15.951	15.951	0.00001	0.00001	0.00000
WEI	831	10.415	10.415	10.415	0.00001	0.00001	0.00000

RBFB_Fix_1.txt

WEI	832	12.664	12.664	12.664	0.00001	0.00001	0.00000
WEI	833	21.175	21.175	93.773	0.00001	0.00001	0.00000
WEI	834	22.436	22.436	22.436	0.00001	0.00001	0.00000
WEI	835	29.088	29.088	29.088	0.00001	0.00001	0.00000
WEI	836	29.088	29.088	29.088	0.00001	0.00001	0.00000
WEI	837	19.197	19.197	19.197	0.00001	0.00001	0.00000
WEI	838	28.715	28.715	28.715	0.00001	0.00001	0.00000
WEI	839	5.667	5.667	5.667	0.00001	0.00001	0.00000
WEI	840	6.368	6.368	6.368	0.00001	0.00001	0.00000
WEI	841	5.723	5.723	5.723	0.00001	0.00001	0.00000
WEI	842	5.722	5.722	5.722	0.00001	0.00001	0.00000
WEI	843	4.924	4.924	4.924	0.00001	0.00001	0.00000
WEI	844	38.413	38.413	179.001	0.00001	0.00001	0.00000
WEI	845	5.619	5.619	5.619	0.00001	0.00001	0.00000
WEI	846	8.146	8.146	8.146	0.00001	0.00001	0.00000
WEI	847	3.399	3.399	3.231	0.00001	0.00001	0.00000
WEI	848	30.015	30.015	28.530	0.00001	0.00001	0.00000
WEI	849	53.762	53.762	51.103	0.00001	0.00001	0.00000
WEI	850	54.294	54.294	51.608	0.00001	0.00001	0.00000
WEI	851	54.294	54.294	51.608	0.00001	0.00001	0.00000
WEI	852	54.282	54.282	51.597	0.00001	0.00001	0.00000
WEI	853	27.135	27.135	25.793	0.00001	0.00001	0.00000
WEI	854	0.927	0.927	0.927	0.00001	0.00001	0.00000
WEI	855	7.877	7.877	7.877	0.00001	0.00001	0.00000
WEI	856	13.899	13.899	13.899	0.00001	0.00001	0.00000
WEI	857	11.691	11.691	11.691	0.00001	0.00001	0.00000
WEI	858	9.525	9.525	9.525	0.00001	0.00001	0.00000
WEI	859	8.011	8.011	8.011	0.00001	0.00001	0.00000
WEI	860	9.896	9.896	9.896	0.00001	0.00001	0.00000

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*** DAC3N *** < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

WEI	861	6.762	6.762	6.762	0.00001	0.00001	0.00000
WEI	862	4.015	4.015	4.015	0.00001	0.00001	0.00000
WEI	863	4.011	4.011	4.011	0.00001	0.00001	0.00000
WEI	864	4.011	4.011	4.011	0.00001	0.00001	0.00000
WEI	865	4.011	4.011	4.011	0.00001	0.00001	0.00000
WEI	866	4.011	4.011	4.011	0.00001	0.00001	0.00000
WEI	867	5.922	5.922	5.922	0.00001	0.00001	0.00000
WEI	868	4.548	4.548	4.548	0.00001	0.00001	0.00000
WEI	869	4.704	4.704	4.704	0.00001	0.00001	0.00000
WEI	870	4.704	4.704	4.704	0.00001	0.00001	0.00000
WEI	871	2.161	2.161	2.161	0.00001	0.00001	0.00000
WEI	872	2.161	2.161	2.161	0.00001	0.00001	0.00000
EI	873	0.000	0.000	0.000	0.00001	0.00001	0.00000
EI	874	7.677	7.677	7.677	0.00001	0.00001	0.00000
EI	875	0.000	0.000	0.000	0.00001	0.00001	0.00000
EI	876	1.375	1.375	1.375	0.00001	0.00001	0.00000
WEI	8047	0.000			0.00001	0.00001	0.00000
WEI	8054	0.000			0.00001	0.00001	0.00000
WEI	8055	0.000			0.00001	0.00001	0.00000
WEI	8059	0.000			0.00001	0.00001	0.00000

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RPV BML DATA

RBFB_Fix_1.txt

```
                                                                              
      INUM INOD JNOD KNOD IRGD IMAT ISCT                      WW
BML    801  801  802 8888       810  801
BML    802  802  803 8888       810  802
BML    803  803  804 8888       810  803
BML    804  804  805 8888       810  804
BML    805  805  806 8888       810  805
BML    806  806  807 8888       810  806
BML    807  807  808 8888       810  807
BML    808  808  809 8888       810  808
BML    809  809  810 8888       810  809
BML    810  810  811 8888       810  810
BML    811  811  812 8888       810  811
BML    812  812  813 8888       810  812
BML    813  813  814 8888       810  813
BML    814  814  815 8888       810  814
BML    815  815  816 8888       810  815
BML    816  816  817 8888       810  816
BML    817  817  818 8888       810  817
BML    818  818  819 8888       810  818
BML    819  819  820 8888       810  819
BML    820  820  821 8888       810  820
BML    821  821  822 8888       810  821
BML    822  822  823 8888       810  822
BML    823  823  824 8888       810  823
BML    824  824  825 8888       810  824
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

================================================================================
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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
BML    825  825  826 8888       810  825
BML    826  826  827 8888       810  826
BML    827  827  828 8888       810  827

BML    828  829  830 8888       824  828
BML    829  830  831 8888       824  829
BML    830  831  832 8888       824  830
BML    831  832  833 8888       824  831
BML    832  833  834 8888       824  832
BML    833  834  835 8888       824  833
BML    834  835  836 8888       824  834
BML    835  836  837 8888       824  835
BML    836  837  838 8888       824  836
BML    837  838  839 8888       824  837
BML    838  839  840 8888       824  838
BML    839  840  841 8888       824  839
BML    840  841  842 8888       824  840
BML    841  842  843 8888       824  841
BML    842  843  844 8888       824  842
BML    843  844  845 8888       824  843
BML    844  845  846 8888       824  844

BML    845 8047  848 8888       830  845
BML    846  848  849 8888       830  846
BML    847  849  850 8888       830  847
BML    848  850  851 8888       830  848
BML    849  851  852 8888       830  849
```

RBFB_Fix_1.txt

```
BML    850  852  853 8888       830  850
BML    851  853 8054 8888       830  851
BML    852 8055  855 8888       822  852
BML    853  855  856 8888       822  853
BML    854  856  857 8888       822  854
BML    855  857  858 8888       822  855
BML    856  858 8059 8888       822  856
BML    857  859  860 8888       822  857
BML    858  860  828 8888       822  858

BML    859  827  861 8888       822  859
BML    860  828  862 8888       822  860
BML    861  861  863 8888       822  861
BML    862  862  864 8888       822  862
BML    863  863  865 8888       822  863
BML    864  864  866 8888       822  864
BML    865  865  867 8888       822  865
BML    866  866  868 8888       822  866
BML    867  867  869 8888       822  867
BML    868  868  870 8888       822  868
BML    869  869  871 8888       822  869
BML    870  870  872 8888       822  870
BML    871  815  711 8888       810  871
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
=============================================================================
=============================================================================
 RPV BSCT DATA
=============================================================================
      ISCT        SA         SB         SC         JA         IB         IC
                  (Z)        (X)        (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
BSCT   801 4.793E+04 2.396E+04 2.396E+04        0.1 7.327E+08 7.327E+08
BSCT   802 4.345E+04 2.173E+04 2.173E+04        0.1 2.252E+09 2.252E+09
BSCT   803 9.441E+04 4.721E+04 4.721E+04        0.1 6.885E+09 6.885E+09
BSCT   804 9.441E+04 4.721E+04 4.721E+04        0.1 6.885E+09 6.885E+09
BSCT   805 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   806 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   807 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   808 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   809 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   810 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   811 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   812 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   813 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   814 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   815 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   816 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   817 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   818 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   819 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   820 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   821 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   822 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   823 4.171E+04 2.085E+04 2.085E+04        0.1 2.775E+09 2.775E+09
BSCT   824 4.919E+04 2.460E+04 2.460E+04        0.1 4.708E+09 4.708E+09
```

RBFB_Fix_1.txt

```
BSCT   825 6.611E+04 3.305E+04 3.305E+04       0.1 5.171E+09 5.171E+09
BSCT   826 8.138E+04 4.069E+04 4.069E+04       0.1 4.164E+09 4.164E+09
BSCT   827 8.261E+04 4.131E+04 4.131E+04       0.1 1.260E+09 1.260E+09

BSCT   828 1.778E+04 8.888E+03 8.888E+03       0.1 1.240E+06 1.240E+06
BSCT   829 1.616E+04 8.081E+03 8.081E+03       0.1 9.700E+05 9.700E+05
BSCT   830 6.675E+03 3.338E+03 3.338E+03       0.1 2.300E+05 2.300E+05
BSCT   831 1.824E+04 9.121E+03 9.121E+03       0.1 3.531E+08 3.531E+08
BSCT   832 9.734E+03 4.867E+03 4.867E+03       0.1 4.673E+08 4.673E+08
BSCT   833 1.795E+04 8.974E+03 8.974E+03       0.1 5.647E+08 5.647E+08
BSCT   834 1.795E+04 8.974E+03 8.974E+03       0.1 5.647E+08 5.647E+08
BSCT   835 1.795E+04 8.974E+03 8.974E+03       0.1 5.647E+08 5.647E+08
BSCT   836 1.795E+04 8.974E+03 8.974E+03       0.1 5.647E+08 5.647E+08
BSCT   837 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08
BSCT   838 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08
BSCT   839 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08
BSCT   840 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08
BSCT   841 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08
BSCT   842 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08
BSCT   843 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

================================================================================
================================================

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
BSCT   844 1.004E+04 5.021E+03 5.021E+03       0.1 5.128E+08 5.128E+08

BSCT   845 1.315E+04 6.573E+03 6.573E+03       0.1 4.200E+05 4.200E+05
BSCT   846 1.315E+04 6.573E+03 6.573E+03       0.1 4.200E+05 4.200E+05
BSCT   847 1.315E+04 6.573E+03 6.573E+03       0.1 4.200E+05 4.200E+05
BSCT   848 1.315E+04 6.573E+03 6.573E+03       0.1 4.200E+05 4.200E+05
BSCT   849 1.315E+04 6.573E+03 6.573E+03       0.1 4.200E+05 4.200E+05
BSCT   850 1.315E+04 6.573E+03 6.573E+03       0.1 4.200E+05 4.200E+05
BSCT   851 1.000E+04 5.000E+03 5.000E+03       0.1 5.000E+05 5.000E+05
BSCT   852 9.528E+03 4.764E+03 4.764E+03       0.1 8.600E+05 8.600E+05
BSCT   853 9.528E+03 4.764E+03 4.764E+03       0.1 8.600E+05 8.600E+05
BSCT   854 9.528E+03 4.764E+03 4.764E+03       0.1 8.600E+05 8.600E+05
BSCT   855 9.528E+03 4.764E+03 4.764E+03       0.1 8.600E+05 8.600E+05
BSCT   856 9.528E+03 4.764E+03 4.764E+03       0.1 8.600E+05 8.600E+05
BSCT   857 1.852E+04 9.259E+03 9.259E+03       0.1 4.500E+05 4.500E+05
BSCT   858 1.852E+04 9.259E+03 9.259E+03       0.1 4.500E+05 4.500E+05

BSCT   859 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   860 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   861 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   862 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   863 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   864 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   865 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   866 7.628E+03 3.814E+03 3.814E+03       0.1 1.800E+05 1.800E+05
BSCT   867 8.816E+03 4.408E+03 4.408E+03       0.1 2.900E+05 2.900E+05
BSCT   868 8.816E+03 4.408E+03 4.408E+03       0.1 2.900E+05 2.900E+05
BSCT   869 7.159E+03 3.580E+03 3.580E+03       0.1 1.800E+05 1.800E+05
BSCT   870 7.159E+03 3.580E+03 3.580E+03       0.1 1.800E+05 1.800E+05
BSCT   871 9.160E+03 4.580E+03 4.580E+03       0.1 9.443E+08 9.443E+08
================================================================================
================================================================================
 RPV SPL DATA
```

RBFB_Fix_1.txt

```
=============================================================================
      INUM INOD JNOD KNOD IRGD IMAT IKND
SPL    811  804  208              811    1
SPL    812  808  708              812    1
SPL    813  811  833              813    1
SPL    814  824  846              814    1
SPL    816  867  376              816    1
SPL    817  867  868              817    1

SPL    821  804  208              821    2
SPL    822  808  708              822    2
SPL    823  811  833              823    2
SPL    824  824  846              824    2
SPL    826  867  376              826    2
SPL    827  867  868              827    2

SPL    838  824  846              838    3
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1=============================================================================
==============================================
  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

SPL    845  824  846              845    4
SPL    855  824  846              855    5
=============================================================================
 SOFT SPRING FOR RELATIVE DISPLACEMENT
SPL   4001  847  850             4000    1
SPL   4002  847  850             4000    2
SPL   4003  847  850             4000    3

SPL   4101  850  853             4000    1
SPL   4102  850  853             4000    2
SPL   4103  850  853             4000    3

SPL   4201  844  828             4000    1
SPL   4202  844  828             4000    2
SPL   4203  844  828             4000    3

SPL   4301  838  816             4000    1
SPL   4302  838  816             4000    2
SPL   4303  838  816             4000    3

SPL   4401  838  828             4000    1
SPL   4402  838  828             4000    2
SPL   4403  838  828             4000    3

SPL   4501  850  828             4000    1
SPL   4502  850  828             4000    2
SPL   4503  850  828             4000    3

SPL   4601  868  828             4000    1
SPL   4602  868  828             4000    2
SPL   4603  868  828             4000    3

SPL   4701  867  827             4000    1
SPL   4702  867  827             4000    2
SPL   4703  867  827             4000    3
```

RBFB_Fix_1.txt

```
=============================================================================
=============================================================================
 RPV MAT DATA
=============================================================================
       IMAT        GG        EE RAY-DAMP1 RAY-DAMP2 ENRG-DAMP
BMAT    810 6.9042E+2 1.7951E+3      -1.0      -1.0      0.04
BMAT    822 6.9227E+2 1.7999E+3      -1.0      -1.0      0.02
BMAT    824 6.9227E+2 1.7999E+3      -1.0      -1.0      0.04
BMAT    830 2.6780E+2 7.5520E+2      -1.0      -1.0      0.06

       IMAT      RSTF                HDM1      HDM2      HENR
SMAT    811 1.790E+02                -1.0      -1.0      0.04
SMAT    812 6.290E+03                -1.0      -1.0      0.04
SMAT    813 1.790E+04                -1.0      -1.0      0.04
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1=============================================================================
==============================================
  *** DAC3N ***       < G-2 > INPT DATA ECHO

=============================================================================
==============================================

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
SMAT    814 5.550E+04                -1.0      -1.0      0.04
SMAT    816 1.120E+03                -1.0      -1.0      0.02
SMAT    817 1.250E+04                -1.0      -1.0      0.02

SMAT    821 1.790E+02                -1.0      -1.0      0.04
SMAT    822 6.290E+03                -1.0      -1.0      0.04
SMAT    823 1.790E+04                -1.0      -1.0      0.04
SMAT    824 5.550E+04                -1.0      -1.0      0.04
SMAT    826 1.120E+03                -1.0      -1.0      0.02
SMAT    827 1.250E+04                -1.0      -1.0      0.02

SMAT    838 8.436E+04                -1.0      -1.0      0.04

SMAT    845 4.310E+11                -1.0      -1.0      0.04
SMAT    855 4.310E+11                -1.0      -1.0      0.04

SMAT   4000 1.000E-05                -1.0      -1.0      0.00
=============================================================================
=============================================================================
 RPV LNK DATA
=============================================================================
LNKXX  847 8047
LNKYY  847 8047
LNKZZ  847 8047
LNKRZ  847 8047

LNKXX 8054  854
LNKYY 8054  854
LNKZZ 8054  854
LNKRZ 8054  854

LNKXX  854 8055
LNKYY  854 8055
LNKZZ  854 8055
LNKRZ  854 8055

LNKXX 8059  859
LNKYY 8059  859
LNKZZ 8059  859
```

RBFB_Fix_1.txt

```
          LNKRZ 8059  859

          LNKXX  838  847
          LNKYY  838  847
          LNKRX  838  847
          LNKRY  838  847
          LNKRZ  838  847

          LNKXX  844  854
          LNKYY  844  854
          LNKRX  844  854
          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
================================================
  *** DAC3N ***       < G-2 > INPT DATA ECHO

================================================================================
================================================

          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
          LNKRY  844  854
          LNKRZ  844  854

          LNKRZ  824  846
          ========================================================================
          ========================================================================
           RPV MAT DATA
          ========================================================================
                INUM QKND IDOF QFLG QTYP IUNT INCD IMCD FACT
          MAT      1 MMAT   12              30 1000    1
          MATJ   808
          MATJ   830
          MAT      2 MMAT   12              30 1000    2
          MATJ   809
          MATJ   831
          MAT      3 MMAT   12              30 1000    3
          MATJ   810
          MATJ   832
          MAT      4 MMAT   12              30 1000    4
          MATJ   811
          MATJ   833
          MAT      5 MMAT   12              30 1000    5
          MATJ   812
          MATJ   834
          MAT      6 MMAT   12              30 1000    6
          MATJ   813
          MATJ   835
          MAT      7 MMAT   12              30 1000    7
          MATJ   814
          MATJ   836
          MAT      8 MMAT   12              30 1000    8
          MATJ   815
          MATJ   837
          MAT      9 MMAT   18              30 1000    9
          MATJ   816
          MATJ   838
          MATJ   848
          MAT     10 MMAT   18              30 1000   10
          MATJ   817
          MATJ   839
          MATJ   849
          MAT     11 MMAT   18              30 1000   11
```

```
          MATJ   818
          MATJ   840
          MATJ   850
          MAT     12 MMAT   18              30 1000   12
          MATJ   819
          MATJ   841
          MATJ   851
          MAT     13 MMAT   18              30 1000   13
          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
================================================
  *** DAC3N ***       < G-2 > INPT DATA ECHO

================================================================================================
================================================

          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
          MATJ   820
          MATJ   842
          MATJ   852
          MAT     14 MMAT   18              30 1000   14
          MATJ   821
          MATJ   843
          MATJ   853
          MAT     15 MMAT   18              30 1000   15
          MATJ   822
          MATJ   844
          MATJ   854
          MAT     16 MMAT   18              30 1000   16
          MATJ   823
          MATJ   845
          MATJ   856
          MAT     17 MMAT   18              30 1000   17
          MATJ   824
          MATJ   846
          MATJ   857
          MAT     18 MMAT   12              30 1000   18
          MATJ   825
          MATJ   858
          MAT     19 MMAT   12              30 1000   19
          MATJ   826
          MATJ   859
          MAT     20 MMAT   12              30 1000   20
          MATJ   827
          MATJ   860
          ================================================================================
          ================================================================================
           SOIL DATA
          ================================================================================
               INUM INOD JNOD KNOD IRGD IMAT IKND
          SPL  1001    1  111            1001    1
          SPL  1002    1  111            1002    2
          SPL  1003    1  111            1003    3
          SPL  1004    1  111            1004    4
          SPL  1005    1  111            1005    5
          SPL  1006    1  111            1006    6

               IMAT      RSTF                HDM1      HDM2      HENR
          SMAT 1001 1.000E+20                -1.0      -1.0      0.00
          SMAT 1002 1.000E+20                -1.0      -1.0      0.00
          SMAT 1003 1.000E+20                -1.0      -1.0      0.00
          SMAT 1004 1.000E+25                -1.0      -1.0      0.00
```

RBFB_Fix_1.txt

```
SMAT  1005 1.000E+25                -1.0      -1.0      0.00
SMAT  1006 1.000E+25                -1.0      -1.0      0.00

      INUM INOD JNOD KNOD IRGD      IKND              RDSP
DSL   1001    1  111                  1          0.000E+00
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
================================================
  *** DAC3N ***       < G-2 > INPT DATA ECHO

================================================================================
================================================

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
DSL   1002    1  111                  2          0.000E+00
DSL   1003    1  111                  3          0.000E+00
DSL   1004    1  111                  4          0.000E+00
DSL   1005    1  111                  5          0.000E+00
=========================================================================
 RBFB TO RCCV
SPL   7009  109  209           7009    3
SPL   7008  108  208           7008    3
SPL   7006  106  206           7006    3
SPL   7005  105  205           7005    3
SPL   7004  104  204           7004    3
SPL   7003  103  203           7003    3
SPL   7002  102  202           7002    3
SPL   7001  101  201           7001    3
 RCCV TO PEDESTAL
SPL   7023  203  303           7023    3
SPL   7022  202  302           7022    3
SPL   7021  201  301           7021    3
 RCCV TO V/W
SPL   7020  206  701           7020    3

SMAT  7009  6.905E+4               -1.0      -1.0      0.07
SMAT  7008  6.905E+4               -1.0      -1.0      0.07
SMAT  7006  1.375E+4               -1.0      -1.0      0.07
SMAT  7005  1.375E+4               -1.0      -1.0      0.07
SMAT  7004  1.375E+4               -1.0      -1.0      0.07
SMAT  7003  1.375E+4               -1.0      -1.0      0.07
SMAT  7002  1.375E+4               -1.0      -1.0      0.07
SMAT  7001  1.375E+4               -1.0      -1.0      0.07
SMAT  7023  6.906E+3               -1.0      -1.0      0.07
SMAT  7022  1.375E+4               -1.0      -1.0      0.07
SMAT  7021  1.375E+4               -1.0      -1.0      0.07
SMAT  7020  9.208E+2               -1.0      -1.0      0.07
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
END OF INPUT DATA .
1================================================================================
================================================
  *** DAC3N ***     < I-2 > CHECK ECHO OF "DSTP" CARD

================================================================================
================================================


 *** DSTP CARD ***

                    LAND =     2      : ANALYSIS FLAG FOR D-STEP
                                      0,1=NOT EXEC,2=EXEC
```

RBFB_Fix_1.txt

```
MSTP = 2200      : NUMBER OF TIME STEP
MDV1 =    5      : DIVID NUMBER OF TIME STEP
MDV2 =    1      : SKIP NUMBER OF OUTPUT DATA
LPRN =    2      : PRINT LEVEL FOR D-STEP (DEF=2)
NPR1 =    0      : START TIME STEP FOR PRINT
NPR2 =    0      : END   TIME STEP FOR PRINT
MWWW =11000      : OUTPUT WAVE LENGTH
DLTA = 1.000E-02: TIME INCREMENT
DLT2 = 2.000E-03: TIME INCREMENT (CALCULATE)
DLT3 = 2.000E-03: TIME INCREMENT (OUTPUT)
ALPH = 5.000E-01: CONSTANT OF NEWMARK BETA METHOD
                  DEF=0.5
BETA = 2.500E-01: CONSTANT OF NEWMARK BETA METHOD
                  DEF=0.25
1================================================================================
================================================
  *** DAC3N ***     < I-3 > ECHO OF "RAYL","ITER","PDEF" CAR

================================================================================
================================================


 *** RAYL CARD ***

                  LRAY =    1      : FLAG OF RAYLEIGH DAMPING
                                     0,1= NOT CONSIDERED
                                       2= CONSIDERED
                  LRAT =    1      : FLAG OF RAYLEIGH DAMPING
                                     0,1= PROPOTION TO ORIGINAL  STIF.
                                       2= PROPOTION TO TEMPORARY STIF.
                  HDM1 =  .000E+00: DAMPING CONSTANR AT FRQ1
                  HDM2 =  .000E+00: DAMPING CONSTANR AT FRQ2
                  FRQ1 =  .000E+00: FREQ TO EVALUATE HDM1
                  FRQ2 =  .000E+00: FREQ TO EVALUATE HDM2


 *** ITER CARD ***

                  LITE =    1      : ITERTION METHOD
                                     0,1=NEWTON1, 2:NEWTON2
                  NITE =   10      : MAXIMUM NUMBER OF ITERATION
                                     DEF= 5
                  NKTM =    1      : TIME INTERVAL TO REMAKE MATRIX
                                     DEF= 1
                  NKIT =   10      : MAX NUMBER OF ITERATION
                                     TO REMAKE MATRIX
                                     DEF= 0
                  LCNV =  110      : FLAG OF CONVERGENCE
                                     DEF= 110 DISP. & FORCE CRITERIA
                                     (100=DISP,010=FORCE,001=ENERGY)
                  LSTU =    3      : FLAG OF LSTF
                                     2     : USE (N-1)STEP STIFFNESS
                                     3(DEF): USE (N)STEP (I-1)ITER.
                  LSTP =    1      : FLAG OF STOP
                                     0(DEF): STOP IF CONV. EROR
                                     1     : NOT STOP
                  EPSD = 1.000E-08: EROR ON DISPLACEMENT
                                     DEF= 1.0E-6
                  EPSF = 1.000E-06: EROR ON UNBALANCED FORCE
                                     DEF= 1.0E-6
                  EPSE = 1.000E-12: EROR ON ENERGY
                                     DEF= 1.0E-12
```

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EPMD = 1.000E-08: EROR ON ROTATION
DEF= 1.0E-8
EPMF = 1.000E-04: EROR ON UNBALANCED MOMENT
DEF= 1.0E-4
EPME = 1.000E-12: EROR ON ENERGY
DEF= 1.0E-12

*** PDEF CARD ***

LPDE = 0 : P-DELTA EFFECT
= 0 : NOT CONSIDERED
= 1 : CONSIDERED

1==========

*** DAC3N *** < M-M > INFORMATION OF M-MATRIX DIAGNOAL

==========

(2)	3.427E+01	3.427E+01	3.698E+01	8.440E+07	1.317E+08	2.154E+08
(1)	1.680E+01	1.680E+01	1.680E+01	3.361E+07	6.860E+07	1.022E+08
(111)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(9999)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(303)	6.593E+00	6.593E+00	8.314E+00	3.546E+06	3.547E+06	7.010E+06
(377)	1.899E-01	1.899E-01	1.899E-01	2.173E+04	2.173E+04	4.286E+04
(302)	3.123E+00	3.123E+00	2.813E+00	1.716E+06	1.717E+06	3.293E+06
(376)	1.403E-03	1.403E-03	1.403E-03	1.020E-06	1.020E-06	1.020E-06
(301)	2.789E+00	2.789E+00	2.373E+00	1.514E+06	1.515E+06	2.911E+06
(209)	7.317E+00	7.317E+00	5.102E+00	1.105E+07	4.074E+06	2.324E+07
(208)	2.052E+01	2.052E+01	1.838E+01	3.287E+07	3.699E+07	6.184E+07
(206)	8.318E+00	8.318E+00	6.367E+00	2.100E+07	2.022E+07	4.077E+07
(205)	4.129E+00	4.129E+00	3.607E+00	1.197E+07	1.194E+07	1.758E+07
(204)	6.970E+00	6.970E+00	3.703E+00	1.738E+07	1.738E+07	3.458E+07
(203)	7.783E+00	7.783E+00	4.349E+00	1.938E+07	1.938E+07	3.850E+07
(202)	5.665E+00	5.665E+00	4.783E+00	1.607E+07	1.623E+07	3.198E+07
(201)	5.487E+00	5.487E+00	5.106E+00	1.543E+07	1.548E+07	3.062E+07
(110)	9.328E+00	9.328E+00	4.773E+00	3.982E+07	4.574E+07	9.002E+07
(109)	9.860E+00	9.860E+00	9.366E+00	5.692E+07	6.244E+07	1.180E+08
(108)	1.387E+01	1.387E+01	1.436E+01	5.068E+07	7.374E+07	1.252E+08
(107)	7.254E+00	7.254E+00	4.336E+00	3.380E+07	5.827E+07	9.786E+07
(106)	7.177E+00	7.177E+00	5.916E+00	3.624E+07	5.199E+07	9.010E+07
(105)	6.726E+00	6.726E+00	6.204E+00	3.200E+07	5.210E+07	8.359E+07
(104)	7.197E+00	7.197E+00	6.620E+00	3.502E+07	5.452E+07	8.898E+07
(103)	1.256E+01	1.256E+01	6.457E+00	5.186E+07	9.235E+07	1.433E+08
(102)	1.620E+01	1.620E+01	1.402E+01	6.381E+07	1.149E+08	1.776E+08
(101)	1.704E+01	1.704E+01	1.598E+01	6.712E+07	1.221E+08	1.881E+08
(19021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED

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(19106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19129)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19128)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19126)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19125)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19124)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19123)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19122)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19121)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19233)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19232)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19231)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19701)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(9101)	FIXED	FIXED	3.058E+00	FIXED	FIXED	FIXED
(9102)	FIXED	FIXED	4.585E-01	FIXED	FIXED	FIXED
(9103)	FIXED	FIXED	6.096E-01	FIXED	FIXED	FIXED
(9104)	FIXED	FIXED	2.836E-01	FIXED	FIXED	FIXED
(9105)	FIXED	FIXED	1.939E-02	FIXED	FIXED	FIXED
(9106)	FIXED	FIXED	1.260E-01	FIXED	FIXED	FIXED
(9081)	FIXED	FIXED	4.062E+00	FIXED	FIXED	FIXED
(9071)	FIXED	FIXED	2.083E+00	FIXED	FIXED	FIXED
(9072)	FIXED	FIXED	2.788E-01	FIXED	FIXED	FIXED
(9073)	FIXED	FIXED	7.357E-02	FIXED	FIXED	FIXED
(9074)	FIXED	FIXED	3.582E-01	FIXED	FIXED	FIXED
(9075)	FIXED	FIXED	1.245E-01	FIXED	FIXED	FIXED
(9061)	FIXED	FIXED	6.033E-01	FIXED	FIXED	FIXED
(9062)	FIXED	FIXED	1.524E-01	FIXED	FIXED	FIXED
(9063)	FIXED	FIXED	1.010E+00	FIXED	FIXED	FIXED
(9064)	FIXED	FIXED	3.472E+00	FIXED	FIXED	FIXED
(9051)	FIXED	FIXED	1.045E+00	FIXED	FIXED	FIXED
(9041)	FIXED	FIXED	1.154E+00	FIXED	FIXED	FIXED
(9031)	FIXED	FIXED	1.147E+00	FIXED	FIXED	FIXED
(9032)	FIXED	FIXED	8.908E+00	FIXED	FIXED	FIXED
(9033)	FIXED	FIXED	6.633E-03	FIXED	FIXED	FIXED
(9021)	FIXED	FIXED	3.803E-01	FIXED	FIXED	FIXED
(9022)	FIXED	FIXED	1.130E-01	FIXED	FIXED	FIXED
(9023)	FIXED	FIXED	1.144E+00	FIXED	FIXED	FIXED
(9024)	FIXED	FIXED	6.206E-01	FIXED	FIXED	FIXED
(9011)	FIXED	FIXED	3.854E-01	FIXED	FIXED	FIXED
(9012)	FIXED	FIXED	3.768E-01	FIXED	FIXED	FIXED
(29021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED

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(29104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(7777)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(701)	2.056E+00	2.056E+00	8.582E-01	5.786E+05	5.786E+05	1.153E+06
(702)	7.418E-01	7.418E-01	7.418E-01	2.133E+05	2.133E+05	4.143E+05
(703)	7.245E-01	7.245E-01	7.214E-01	2.071E+05	2.071E+05	4.041E+05
(704)	5.133E-01	5.133E-01	4.847E-01	1.449E+05	1.449E+05	2.867E+05
(705)	9.541E-01	9.541E-01	9.276E-01	1.491E+05	1.491E+05	2.853E+05
(706)	6.593E+00	6.593E+00	8.314E+00	3.546E+06	3.547E+06	7.010E+06
(707)	1.224E-01	1.224E-01	1.224E-01	1.408E+04	1.408E+04	2.735E+04
(708)	3.242E-01	3.242E-01	3.028E-01	5.010E+04	5.010E+04	7.071E+04
(709)	2.276E-01	2.276E-01	2.276E-01	4.031E+04	4.031E+04	5.082E+04
(710)	3.235E-01	3.235E-01	3.235E-01	1.153E+04	1.153E+04	8.000E+03
(711)	9.541E-01	9.541E-01	9.276E-01	1.491E+05	1.491E+05	2.853E+05
(712)	6.593E+00	6.593E+00	8.314E+00	3.546E+06	3.547E+06	7.010E+06
(713)	1.899E-01	1.899E-01	1.899E-01	2.173E+04	2.173E+04	4.286E+04
(714)	7.857E-02	7.857E-02	7.857E-02	6.990E+03	6.990E+03	1.388E+04
(715)	1.102E-01	1.102E-01	1.102E-01	1.007E+04	1.007E+04	1.929E+04
(7106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(8888)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(801)	1.624E-02	1.624E-02	1.624E-02	1.020E-08	1.020E-08	1.020E-08
(802)	3.097E-02	3.097E-02	3.097E-02	1.020E-08	1.020E-08	1.020E-08
(803)	4.922E-02	4.922E-02	4.922E-02	1.020E-08	1.020E-08	1.020E-08
(804)	6.133E-02	6.133E-02	6.133E-02	1.020E-08	1.020E-08	1.020E-08
(805)	6.089E-02	6.089E-02	6.089E-02	1.020E-08	1.020E-08	1.020E-08
(806)	9.258E-02	9.258E-02	9.258E-02	1.020E-08	1.020E-08	1.020E-08
(807)	3.461E-02	3.461E-02	3.461E-02	1.020E-08	1.020E-08	1.020E-08
(808)	9.669E-02	9.669E-02	4.612E-02	1.020E-08	1.020E-08	1.020E-08
(809)	1.188E-01	1.188E-01	4.924E-02	1.020E-08	1.020E-08	1.020E-08
(810)	1.385E-01	1.385E-01	5.370E-02	1.020E-08	1.020E-08	1.020E-08
(811)	2.480E-01	2.480E-01	4.597E-02	1.020E-08	1.020E-08	1.020E-08
(812)	4.132E-01	4.132E-01	6.458E-02	1.020E-08	1.020E-08	1.020E-08
(813)	4.307E-01	4.307E-01	6.731E-02	1.020E-08	1.020E-08	1.020E-08
(814)	4.307E-01	4.307E-01	6.731E-02	1.020E-08	1.020E-08	1.020E-08
(815)	2.994E-01	2.994E-01	5.957E-02	1.020E-08	1.020E-08	1.020E-08
(816)	1.598E-01	1.598E-01	2.237E-02	1.020E-08	1.020E-08	1.020E-08
(817)	1.836E-01	1.836E-01	2.344E-02	1.020E-08	1.020E-08	1.020E-08
(818)	1.854E-01	1.854E-01	2.367E-02	1.020E-08	1.020E-08	1.020E-08
(819)	1.854E-01	1.854E-01	2.367E-02	1.020E-08	1.020E-08	1.020E-08
(820)	1.854E-01	1.854E-01	2.367E-02	1.020E-08	1.020E-08	1.020E-08
(821)	1.012E-01	1.012E-01	2.037E-02	1.020E-08	1.020E-08	1.020E-08
(822)	1.723E-01	1.723E-01	1.761E-02	1.020E-08	1.020E-08	1.020E-08
(823)	1.820E-01	1.820E-01	2.324E-02	1.020E-08	1.020E-08	1.020E-08
(824)	1.905E-01	1.905E-01	2.758E-02	1.020E-08	1.020E-08	2.041E-08
(825)	6.005E-02	6.005E-02	1.461E-01	1.020E-08	1.020E-08	1.020E-08
(826)	5.136E-02	5.136E-02	2.958E-02	1.020E-08	1.020E-08	1.020E-08
(827)	6.105E-02	6.105E-02	8.862E-02	1.020E-08	1.020E-08	1.020E-08
(828)	4.098E-02	4.098E-02	7.214E-02	1.020E-08	1.020E-08	1.020E-08
(829)	1.183E-02	1.183E-02	1.183E-02	1.020E-08	1.020E-08	1.020E-08
(830)	3.353E-02	3.353E-02	1.628E-02	1.020E-08	1.020E-08	1.020E-08
(831)	2.871E-02	2.871E-02	1.063E-02	1.020E-08	1.020E-08	1.020E-08
(832)	5.049E-02	5.049E-02	1.292E-02	1.020E-08	1.020E-08	1.020E-08
(833)	1.744E-01	1.744E-01	9.569E-02	1.020E-08	1.020E-08	1.020E-08
(834)	2.873E-01	2.873E-01	2.289E-02	1.020E-08	1.020E-08	1.020E-08
(835)	3.053E-01	3.053E-01	2.968E-02	1.020E-08	1.020E-08	1.020E-08
(836)	3.053E-01	3.053E-01	2.968E-02	1.020E-08	1.020E-08	1.020E-08
(837)	2.015E-01	2.015E-01	1.959E-02	1.020E-08	1.020E-08	1.020E-08
(838)	1.625E-01	1.625E-01	2.930E-02	2.041E-08	2.041E-08	3.061E-08
(839)	1.787E-01	1.787E-01	5.783E-03	1.020E-08	1.020E-08	1.020E-08
(840)	1.811E-01	1.811E-01	6.498E-03	1.020E-08	1.020E-08	1.020E-08
(841)	1.804E-01	1.804E-01	5.840E-03	1.020E-08	1.020E-08	1.020E-08

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(842)	1.804E-01	1.804E-01	5.839E-03	1.020E-08	1.020E-08	1.020E-08
(843)	9.231E-02	9.231E-02	5.024E-03	1.020E-08	1.020E-08	1.020E-08
(844)	1.768E-01	1.768E-01	1.827E-01	2.041E-08	2.041E-08	4.082E-08
(845)	1.610E-01	1.610E-01	5.734E-03	1.020E-08	1.020E-08	1.020E-08
(846)	1.675E-01	1.675E-01	8.312E-03	1.020E-08	1.020E-08	2.041E-08
(847)	1.625E-01	1.625E-01	3.297E-03	2.041E-08	2.041E-08	3.061E-08
(848)	4.181E-02	4.181E-02	2.911E-02	1.020E-08	1.020E-08	1.020E-08
(849)	7.745E-02	7.745E-02	5.215E-02	1.020E-08	1.020E-08	1.020E-08
(850)	7.821E-02	7.821E-02	5.266E-02	1.020E-08	1.020E-08	1.020E-08
(851)	7.821E-02	7.821E-02	5.266E-02	1.020E-08	1.020E-08	1.020E-08
(852)	7.820E-02	7.820E-02	5.265E-02	1.020E-08	1.020E-08	1.020E-08
(853)	3.909E-02	3.909E-02	2.632E-02	1.020E-08	1.020E-08	1.020E-08
(854)	1.768E-01	1.768E-01	9.459E-04	2.041E-08	2.041E-08	4.082E-08
(855)	8.038E-03	8.038E-03	8.038E-03	1.020E-08	1.020E-08	1.020E-08
(856)	3.004E-02	3.004E-02	1.418E-02	1.020E-08	1.020E-08	1.020E-08
(857)	2.819E-02	2.819E-02	1.193E-02	1.020E-08	1.020E-08	1.020E-08
(858)	2.296E-02	2.296E-02	9.719E-03	1.020E-08	1.020E-08	1.020E-08
(859)	1.520E-02	1.520E-02	8.174E-03	1.020E-08	1.020E-08	2.041E-08
(860)	1.087E-02	1.087E-02	1.010E-02	1.020E-08	1.020E-08	1.020E-08
(861)	6.900E-03	6.900E-03	6.900E-03	1.020E-08	1.020E-08	1.020E-08
(862)	4.097E-03	4.097E-03	4.097E-03	1.020E-08	1.020E-08	1.020E-08
(863)	4.093E-03	4.093E-03	4.093E-03	1.020E-08	1.020E-08	1.020E-08
(864)	4.093E-03	4.093E-03	4.093E-03	1.020E-08	1.020E-08	1.020E-08
(865)	4.093E-03	4.093E-03	4.093E-03	1.020E-08	1.020E-08	1.020E-08
(866)	4.093E-03	4.093E-03	4.093E-03	1.020E-08	1.020E-08	1.020E-08
(867)	6.043E-03	6.043E-03	6.043E-03	1.020E-08	1.020E-08	1.020E-08
(868)	4.641E-03	4.641E-03	4.641E-03	1.020E-08	1.020E-08	1.020E-08
(869)	4.800E-03	4.800E-03	4.800E-03	1.020E-08	1.020E-08	1.020E-08
(870)	4.800E-03	4.800E-03	4.800E-03	1.020E-08	1.020E-08	1.020E-08
(871)	2.205E-03	2.205E-03	2.205E-03	1.020E-08	1.020E-08	1.020E-08
(872)	2.205E-03	2.205E-03	2.205E-03	1.020E-08	1.020E-08	1.020E-08
(8047)	1.625E-01	1.625E-01	3.297E-03	1.020E-08	1.020E-08	3.061E-08
(8054)	1.768E-01	1.768E-01	9.459E-04	1.020E-08	1.020E-08	4.082E-08
(8055)	1.768E-01	1.768E-01	9.459E-04	1.020E-08	1.020E-08	4.082E-08
(8059)	1.520E-02	1.520E-02	8.174E-03	1.020E-08	1.020E-08	2.041E-08

TOTAL MASS

X	Y	Z	RX	RY	RZ
2.663E+02	2.663E+02	2.638E+02	7.459E+08	1.086E+09	1.830E+09

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*** DAC3N *** < M-K > INFORMATION OF K-MATRIX DIAGNOAL

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(2)	1.050E+07	1.060E+07	2.758E+07	5.581E+13	1.122E+14	5.661E+13
(1)	1.000E+20	1.000E+20	1.000E+20	1.000E+25	1.000E+25	1.000E+25
(111)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(9999)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(303)	1.513E+14	7.075E+14	2.677E+06	5.023E+11	5.023E+11	3.538E+23
(377)	1.102E+06	1.102E+06	5.514E+06	8.936E+11	8.936E+11	7.131E+11
(302)	8.972E+11	1.196E+12	2.324E+06	5.560E+11	5.560E+11	8.621E+20
(376)	4.642E+05	4.642E+05	2.177E+06	5.263E+11	5.263E+11	4.303E+11
(301)	1.630E+12	3.558E+11	1.298E+06	3.169E+11	3.169E+11	8.179E+20
(209)	8.192E+11	2.171E+12	5.477E+05	5.709E+11	5.710E+11	1.232E+21
(208)	1.628E+11	1.262E+11	1.186E+06	1.549E+12	1.622E+12	1.190E+20
(206)	5.169E+11	1.106E+11	2.238E+06	3.965E+12	1.387E+14	2.585E+20
(205)	7.980E+10	1.719E+10	3.139E+06	5.665E+12	5.665E+12	3.995E+19
(204)	8.120E+10	1.738E+10	3.056E+06	5.518E+12	5.518E+12	4.061E+19
(203)	1.513E+14	7.075E+14	2.797E+06	4.898E+12	4.898E+12	3.538E+23

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(202)	9.289E+11	1.203E+12	2.426E+06	4.344E+12	4.343E+12	8.781E+20
(201)	1.661E+12	3.627E+11	2.475E+06	4.450E+12	4.452E+12	8.337E+20
(110)	6.076E+04	4.949E+04	2.725E+05	4.386E+11	1.015E+12	1.134E+12
(109)	8.192E+11	2.171E+12	1.104E+06	1.898E+12	3.716E+12	1.232E+21
(108)	1.628E+11	1.262E+11	2.661E+06	4.844E+12	1.142E+13	1.190E+20
(107)	8.692E+05	7.825E+05	3.765E+06	6.844E+12	1.433E+13	8.471E+12
(106)	1.165E+11	2.495E+10	4.672E+06	8.974E+12	1.522E+14	5.828E+19
(105)	7.980E+10	1.719E+10	4.988E+06	9.757E+12	1.672E+13	3.995E+19
(104)	8.120E+10	1.738E+10	4.650E+06	9.146E+12	1.569E+13	4.061E+19
(103)	3.372E+10	7.248E+09	5.742E+06	1.225E+13	2.255E+13	1.688E+19
(102)	3.165E+10	7.116E+09	6.826E+06	1.485E+13	2.836E+13	1.598E+19
(101)	3.154E+10	6.929E+09	7.516E+06	1.667E+13	3.103E+13	1.585E+19
(19021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19129)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19128)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19126)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19125)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19124)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19123)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19122)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19121)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19233)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19232)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19231)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19701)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(9101)	FIXED	FIXED	9.125E+02	FIXED	FIXED	FIXED
(9102)	FIXED	FIXED	4.954E+02	FIXED	FIXED	FIXED
(9103)	FIXED	FIXED	2.779E+03	FIXED	FIXED	FIXED
(9104)	FIXED	FIXED	4.424E+03	FIXED	FIXED	FIXED
(9105)	FIXED	FIXED	4.825E+02	FIXED	FIXED	FIXED
(9106)	FIXED	FIXED	4.723E+03	FIXED	FIXED	FIXED
(9081)	FIXED	FIXED	1.119E+05	FIXED	FIXED	FIXED
(9071)	FIXED	FIXED	2.250E+03	FIXED	FIXED	FIXED
(9072)	FIXED	FIXED	5.029E+02	FIXED	FIXED	FIXED
(9073)	FIXED	FIXED	4.383E+02	FIXED	FIXED	FIXED
(9074)	FIXED	FIXED	7.532E+03	FIXED	FIXED	FIXED
(9075)	FIXED	FIXED	4.057E+03	FIXED	FIXED	FIXED
(9061)	FIXED	FIXED	3.456E+03	FIXED	FIXED	FIXED
(9062)	FIXED	FIXED	6.216E+03	FIXED	FIXED	FIXED
(9063)	FIXED	FIXED	2.256E+04	FIXED	FIXED	FIXED
(9064)	FIXED	FIXED	2.528E+04	FIXED	FIXED	FIXED
(9051)	FIXED	FIXED	2.292E+04	FIXED	FIXED	FIXED

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(9041)	FIXED	FIXED	2.292E+04	FIXED	FIXED	FIXED
(9031)	FIXED	FIXED	3.150E+04	FIXED	FIXED	FIXED
(9032)	FIXED	FIXED	1.786E+05	FIXED	FIXED	FIXED
(9033)	FIXED	FIXED	1.767E+02	FIXED	FIXED	FIXED
(9021)	FIXED	FIXED	6.230E+03	FIXED	FIXED	FIXED
(9022)	FIXED	FIXED	3.852E+03	FIXED	FIXED	FIXED
(9023)	FIXED	FIXED	2.354E+04	FIXED	FIXED	FIXED
(9024)	FIXED	FIXED	1.890E+04	FIXED	FIXED	FIXED
(9011)	FIXED	FIXED	7.548E+03	FIXED	FIXED	FIXED
(9012)	FIXED	FIXED	1.029E+04	FIXED	FIXED	FIXED
(29021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(7777)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(701)	4.004E+11	8.564E+10	2.175E+05	5.785E+10	5.785E+10	2.002E+20
(702)	7.804E+04	7.804E+04	4.079E+05	1.157E+11	1.157E+11	8.785E+10
(703)	7.804E+04	7.804E+04	4.079E+05	1.157E+11	1.157E+11	8.785E+10
(704)	1.524E+05	1.524E+05	7.936E+05	2.229E+11	2.229E+11	1.709E+11
(705)	3.518E+05	3.518E+05	1.843E+06	3.503E+11	3.503E+11	2.497E+11
(706)	1.513E+14	7.075E+14	2.677E+06	5.023E+11	5.023E+11	3.538E+23
(707)	4.586E+04	4.586E+04	2.439E+05	2.903E+10	2.903E+10	2.089E+10
(708)	9.319E+04	9.319E+04	4.633E+05	5.551E+10	5.551E+10	3.968E+10
(709)	8.207E+04	8.207E+04	4.388E+05	5.296E+10	5.296E+10	3.758E+10
(710)	9.843E+04	9.843E+04	5.237E+05	6.626E+10	6.626E+10	4.502E+10
(711)	3.518E+05	3.518E+05	1.843E+06	3.503E+11	3.503E+11	2.497E+11
(712)	1.513E+14	7.075E+14	2.677E+06	5.023E+11	5.023E+11	3.538E+23
(713)	1.102E+06	1.102E+06	5.514E+06	8.936E+11	8.936E+11	7.131E+11
(714)	5.965E+05	5.965E+05	3.107E+06	3.448E+11	3.448E+11	2.649E+11
(715)	5.886E+04	5.886E+04	3.103E+05	2.824E+10	2.824E+10	2.086E+10
(7106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(8888)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(801)	1.936E+05	1.936E+05	1.015E+06	1.586E+10	1.586E+10	8.142E-01
(802)	3.701E+05	3.701E+05	1.934E+06	6.385E+10	6.385E+10	1.628E+00
(803)	5.325E+05	5.325E+05	2.774E+06	1.840E+11	1.840E+11	1.570E+00
(804)	8.139E+05	8.139E+05	4.237E+06	3.103E+11	3.103E+11	1.726E+00
(805)	5.276E+05	5.276E+05	2.749E+06	1.995E+11	1.995E+11	1.309E+00
(806)	3.886E+05	3.886E+05	2.026E+06	1.357E+11	1.357E+11	1.868E+00
(807)	4.069E+05	4.069E+05	2.120E+06	1.418E+11	1.418E+11	1.955E+00
(808)	3.083E+05	3.083E+05	1.575E+06	1.056E+11	1.056E+11	1.452E+00
(809)	2.768E+05	2.768E+05	1.445E+06	9.719E+10	9.719E+10	1.333E+00
(810)	2.221E+05	2.221E+05	1.161E+06	7.835E+10	7.835E+10	1.070E+00
(811)	2.540E+05	2.540E+05	1.233E+06	8.302E+10	8.302E+10	1.137E+00
(812)	1.476E+05	1.476E+05	7.745E+05	5.291E+10	5.291E+10	7.142E-01
(813)	1.412E+05	1.412E+05	7.417E+05	5.078E+10	5.078E+10	6.839E-01

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(814)	1.412E+05	1.412E+05	7.417E+05	5.078E+10	5.078E+10	6.839E-01
(815)	3.251E+05	3.251E+05	1.696E+06	1.199E+11	1.199E+11	2.108E+00
(816)	4.292E+05	4.292E+05	2.235E+06	1.492E+11	1.492E+11	2.061E+00
(817)	4.091E+05	4.091E+05	2.130E+06	1.422E+11	1.422E+11	1.964E+00
(818)	4.050E+05	4.050E+05	2.109E+06	1.408E+11	1.408E+11	1.945E+00
(819)	4.050E+05	4.050E+05	2.109E+06	1.408E+11	1.408E+11	1.945E+00
(820)	4.051E+05	4.051E+05	2.110E+06	1.409E+11	1.409E+11	1.945E+00
(821)	4.836E+05	4.836E+05	2.517E+06	1.679E+11	1.679E+11	2.321E+00
(822)	5.453E+05	5.453E+05	2.838E+06	1.892E+11	1.892E+11	2.617E+00
(823)	4.333E+05	4.333E+05	2.256E+06	1.506E+11	1.506E+11	2.081E+00
(824)	5.172E+05	5.172E+05	2.488E+06	6.359E+11	6.359E+11	2.817E+00
(825)	6.825E+05	6.825E+05	3.551E+06	3.050E+11	3.050E+11	2.371E+00
(826)	1.036E+06	1.036E+06	5.392E+06	3.314E+11	3.314E+11	2.770E+00
(827)	9.627E+05	9.627E+05	5.105E+06	1.983E+11	1.983E+11	2.805E+00
(828)	3.368E+05	3.368E+05	2.234E+06	2.589E+10	2.589E+10	2.596E+00
(829)	5.361E+03	5.361E+03	1.970E+05	4.911E+07	4.911E+07	4.261E-01
(830)	4.308E+04	4.308E+04	6.297E+05	1.177E+08	1.177E+08	1.456E+00
(831)	3.813E+04	3.813E+04	4.859E+05	7.568E+07	7.568E+07	1.336E+00
(832)	6.989E+04	6.989E+04	4.168E+05	7.189E+09	7.189E+09	1.073E+00
(833)	1.053E+05	1.053E+05	4.581E+05	1.187E+10	1.187E+10	1.140E+00
(834)	4.810E+04	4.810E+04	2.545E+05	1.003E+10	1.003E+10	7.161E-01
(835)	6.029E+04	6.029E+04	3.200E+05	1.068E+10	1.068E+10	6.858E-01
(836)	6.029E+04	6.029E+04	3.200E+05	1.068E+10	1.068E+10	6.858E-01
(837)	1.261E+05	1.261E+05	6.602E+05	2.118E+10	2.118E+10	1.415E+00
(838)	3.369E+05	3.369E+05	7.598E+05	2.916E+10	2.916E+10	5.079E+00
(839)	9.874E+04	9.874E+04	5.141E+05	2.638E+10	2.638E+10	1.970E+00
(840)	9.776E+04	9.776E+04	5.090E+05	2.612E+10	2.612E+10	1.950E+00
(841)	9.776E+04	9.776E+04	5.090E+05	2.612E+10	2.612E+10	1.950E+00
(842)	9.778E+04	9.778E+04	5.091E+05	2.613E+10	2.613E+10	1.950E+00
(843)	1.167E+05	1.167E+05	6.076E+05	3.114E+10	3.114E+10	2.328E+00
(844)	5.565E+05	5.565E+05	6.850E+05	3.508E+10	3.508E+10	1.161E+01
(845)	1.046E+05	1.046E+05	5.446E+05	2.794E+10	2.794E+10	2.086E+00
(846)	9.630E+04	9.630E+04	2.970E+05	4.419E+11	4.419E+11	2.817E+00
(847)	3.369E+05	3.369E+05	1.117E+06	2.916E+10	2.916E+10	5.079E+00
(848)	1.988E+05	1.988E+05	1.260E+06	5.346E+07	5.346E+07	3.397E+00
(849)	1.524E+04	1.524E+04	2.825E+05	2.785E+07	2.785E+07	7.619E-01
(850)	1.488E+04	1.488E+04	2.797E+05	2.769E+07	2.769E+07	7.544E-01
(851)	1.488E+04	1.488E+04	2.797E+05	2.769E+07	2.769E+07	7.544E-01
(852)	1.489E+04	1.489E+04	2.798E+05	2.770E+07	2.770E+07	7.545E-01
(853)	1.480E+05	1.480E+05	9.528E+05	5.753E+07	5.753E+07	3.260E+00
(854)	5.565E+05	5.565E+05	2.325E+06	3.508E+10	3.508E+10	1.161E+01
(855)	3.013E+05	3.013E+05	1.714E+06	1.946E+08	1.946E+08	6.919E+00
(856)	3.399E+04	3.399E+04	4.035E+05	9.782E+07	9.782E+07	1.629E+00
(857)	5.260E+04	5.260E+04	4.974E+05	1.055E+08	1.055E+08	2.008E+00
(858)	7.067E+04	7.067E+04	5.888E+05	1.131E+08	1.131E+08	2.377E+00
(859)	1.008E+05	1.008E+05	1.061E+06	4.966E+07	4.966E+07	2.777E+00
(860)	7.710E+04	7.710E+04	1.139E+06	8.148E+07	8.148E+07	2.366E+00
(861)	1.128E+04	1.128E+04	2.980E+05	2.397E+07	2.397E+07	1.502E+00
(862)	2.054E+04	2.054E+04	4.187E+05	3.196E+07	3.196E+07	2.111E+00
(863)	2.060E+04	2.060E+04	4.192E+05	3.199E+07	3.199E+07	2.114E+00
(864)	2.060E+04	2.060E+04	4.192E+05	3.199E+07	3.199E+07	2.114E+00
(865)	2.060E+04	2.060E+04	4.192E+05	3.199E+07	3.199E+07	2.114E+00
(866)	2.060E+04	2.060E+04	4.192E+05	3.199E+07	3.199E+07	2.114E+00
(867)	3.600E+04	3.600E+04	4.305E+05	3.885E+07	3.885E+07	2.020E+00
(868)	3.488E+04	3.488E+04	4.305E+05	3.885E+07	3.885E+07	2.020E+00
(869)	1.923E+04	1.923E+04	3.922E+05	3.728E+07	3.728E+07	1.884E+00
(870)	1.923E+04	1.923E+04	3.922E+05	3.728E+07	3.728E+07	1.884E+00
(871)	7.152E+03	7.152E+03	1.713E+05	1.442E+07	1.442E+07	9.203E-01
(872)	7.152E+03	7.152E+03	1.713E+05	1.442E+07	1.442E+07	9.203E-01
(8047)	3.369E+05	3.369E+05	1.117E+06	3.945E+07	3.945E+07	5.079E+00
(8054)	5.565E+05	5.565E+05	2.325E+06	4.368E+07	4.368E+07	1.161E+01
(8055)	5.565E+05	5.565E+05	2.325E+06	1.456E+08	1.456E+08	1.161E+01
(8059)	1.008E+05	1.008E+05	1.061E+06	5.646E+07	5.646E+07	2.777E+00

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```
1================================================================================
================================================
  *** DAC3N ***     < M-1 > INFORMATION OF SUBSPACE METHOD

================================================================================
================================================


 *** CONTROL PARAMETER ***

                     MFRE =  672      : NUMBER OF EQUATIONS
                     MEIU =  200      : NUMBER OF EIGEN VALUE TO BE CALCULATED : USER
INPUT
                     MEIG =  200      : NUMBER OF EIGEN VALUE TO BE CALCULATED : USE
IN PROGRAM
                     MALL =  672      : NUMBER OF POGITIVE IN DIAGONAL TERM OF
M-MATRIX
                     MTRV =  200      : NUMBER OF TRIAL VECTORS
                     MBND =   77      : BAND WIDTH OF MATRIX
                     MSHT =  605      : MAX NUMBER OF SHIFT LOOP
                     MITE =    2      : PARAMETER OF ITERATION LOOP
                     MIT3 =    6      : MAX NUMBER OF ITERATION LOOP
                     EMIN =  .000E+00: LIMIT OF MINIMUM FREQUENCY (HZ)
                     EMAX = 8.000E+02: LIMIT OF MAXIMUM FREQUENCY (HZ)
                     TOLE = 1.000E-06: MAX TOLERANCE OF EROR RATIO

  *** INFOM *** AT "MJACOB"
      DX.LT.0 IN DSQRT(DX)
      NOW SET DX=ABS(DX)



  *** NORMAL END OF EIGENVALUE ANALYSIS

                     NUMBER OF EIGENVALUES  =   221
                     NUMBER OF SHIFTS       =    13
                     NUMBER OF ITERATIONS   =    28
1================================================================================
================================================
  *** DAC3N ***     < M-4 > FREQUENCY,PERIOD,PARTCIPAT. FACT

================================================================================
================================================

  MODE <--FREQUENCY-> <-- PERIOD -->      <-----------------------------
PARTICIPATION  FACTOR  ----------------------------------->
           (HZ)            (SEC)            ( X DIR.  )    ( Y DIR.  )    ( Z DIR.
)    ( X ROT.  )    ( Y ROT.  )    ( Z ROT.  )


     1  2.7373543E+00  3.6531624E-01       7.2933190E-02  2.1380458E-02
1.0960738E+00 -3.0887970E+01  1.4371249E+02 -1.8771376E+00
     2  3.8093676E+00  2.6251076E-01      -3.0657613E-01  6.8322941E+00
1.5410249E-01 -3.9333022E+03 -1.7655192E+02 -3.8163421E+03
     3  3.8102948E+00  2.6244689E-01       2.3265542E+00  1.1032916E-01
5.5316436E-02 -4.4211296E+01  8.5389349E+02  3.3974432E+01
     4  3.9472397E+00  2.5334159E-01       2.4867892E-01 -5.7792812E+00
-1.6006576E-01  3.9089664E+03  1.6926875E+02  3.5255388E+03
     5  4.4033401E+00  2.2710033E-01       1.6562712E+00  6.9055634E-02
7.7898106E-02 -4.7261203E+01  1.0375632E+03  7.1166994E+01
```

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```
     6  5.2093317E+00  1.9196320E-01       1.0954469E-01 -1.1743408E-01
1.5967193E+00 -5.3226095E+01 -1.5697988E+00  3.1645090E+02
     7  5.2236757E+00  1.9143608E-01      -8.0318420E-01 -3.0982598E-03
-2.3824459E-01  2.4526131E+01  9.1445180E+01 -1.7386109E+02
     8  5.9841206E+00  1.6710893E-01       6.8776865E-02  4.9794107E-01
-1.0062358E-01  1.9231080E+03  9.9177269E+01 -8.3628228E+03
     9  5.9867790E+00  1.6703473E-01       4.4553751E-01 -2.7886003E-02
-8.8693123E-02  9.9385185E+00 -7.9369309E+02 -2.1004058E+02
    10  6.0930348E+00  1.6412183E-01      -6.2290245E-02  2.6269208E-01
6.1943142E-02 -1.2054463E+03 -1.1815013E+02  8.7906635E+03
    11  6.7542994E+00  1.4805385E-01       2.3695198E-01 -1.5313980E-01
1.4076225E+00 -6.2682729E+01 -3.0518972E+02 -6.0362168E+02
    12  8.0341644E+00  1.2446845E-01       4.1947486E-02  1.3521807E+00
-2.2222231E-01  1.9305960E+03 -1.2745052E+02  1.2878833E+03
    13  8.7442254E+00  1.1436119E-01       1.5630034E+00 -1.0527218E-01
-1.0988347E+00 -1.4138153E+02 -3.7313513E+03 -1.6302836E+02
    14  1.0258281E+01  9.7482216E-02       6.1627205E-01  2.3595280E-01
3.4849684E+00 -6.2412210E+02  1.3020992E+03 -3.8649002E+02
    15  1.0317790E+01  9.6919980E-02      -1.3005943E-01  3.3577035E-01
-1.2351752E+00 -1.8348062E+03 -1.0938795E+03 -1.0147734E+03
    16  1.0647572E+01  9.3918123E-02       1.3603731E+00  6.0003723E-02
2.0591396E+00  6.8540977E+00 -4.2356177E+03 -1.8982254E+02
    17  1.1194360E+01  8.9330702E-02      -4.0809141E-01 -1.0247453E-01
-2.7078621E+00  2.8534951E+02 -3.3848501E+02  2.3080187E+02
    18  1.1228289E+01  8.9060766E-02       6.3558653E-02 -2.3832102E-01
5.7070433E-01  3.1995937E+02  3.0032475E+02  4.3463516E+02
    19  1.1357841E+01  8.8044901E-02      -8.0528131E-01 -4.8840384E-02
-3.8118421E+00  3.0508023E+02  1.2652716E+03  2.1950187E+02
    20  1.2039470E+01  8.3060132E-02      -3.6901221E-01 -7.7292412E-02
-1.5785189E+00 -3.9965596E+01  3.4495148E+02  6.3976677E+01
    21  1.2271522E+01  8.1489483E-02      -1.2074046E-01  5.2288318E+00
-3.8287317E-01  5.2648453E+03 -1.8599512E+02 -5.4692257E+03
    22  1.2277933E+01  8.1446933E-02      -3.5453192E-01 -5.4452738E+00
1.6189433E-02 -5.9151422E+03 -3.4647806E+02  5.5311868E+03
    23  1.2651780E+01  7.9040261E-02      -6.7435758E-01  1.3890640E-01
-5.0038557E-01  8.3321714E+02 -5.6737195E+02  4.7322013E+00
    24  1.3388441E+01  7.4691297E-02      -5.8061362E-01 -1.2953732E-01
3.9894964E-01 -1.9172502E+03  4.1495203E+02 -2.8936196E+02
    25  1.3666900E+01  7.3169482E-02      -2.9576481E-01  9.5209182E-02
4.0721762E-01  2.0200191E+03  9.2121369E+02  3.3076305E+02
    26  1.4545200E+01  6.8751205E-02      -6.9760617E-02 -2.0985330E-02
6.0595585E-01  4.2838402E+02 -3.1335367E+03 -1.0754218E+02
    27  1.4861298E+01  6.7288875E-02       1.1838236E-02  1.4128491E-01
1.5850220E-02 -6.7797216E+02  2.3855794E+02 -2.8292324E+03
    28  1.5821630E+01  6.3204613E-02      -1.1657864E-01  1.7401589E+00
1.6729713E-01 -1.4388310E+03 -5.0521573E+02  3.1443073E+03
    29  1.6250475E+01  6.1536662E-02       2.4130318E+00  1.7592484E-01
7.5082182E-01  1.0468177E+01  2.1062784E+03  3.7543104E+02
    30  1.6979179E+01  5.8895662E-02      -5.4154441E-02 -1.1992429E-02
1.4442668E+00 -1.5689915E+01  5.7602107E+01 -1.2050721E+01
    31  1.7815615E+01  5.6130536E-02       4.2135028E-02 -7.1679757E-01
4.3984571E-02 -4.0839331E+03 -8.6880097E+02  3.0437947E+02
    32  1.8118071E+01  5.5193514E-02      -3.1626434E+00 -3.1472387E-01
-7.9052807E-01 -1.5618063E+02 -7.5757497E+02 -1.6686179E+02
    33  1.8445671E+01  5.4213263E-02       4.0316281E-01 -8.2264721E-01
-1.0130804E+00  2.4373385E+03  3.7397846E+03  6.4244219E+02
    34  1.8698554E+01  5.3480070E-02      -2.2607629E-01 -8.4109586E-01
8.2579965E-01  5.3930876E+03 -2.7190653E+03  1.1394534E+03
    35  2.0088832E+01  4.9778902E-02      -1.0113765E-01 -7.3588657E-02
-2.5801918E+00 -1.1037860E+03 -1.1748005E+03 -1.2614225E+03
    36  2.0396249E+01  4.9028624E-02       4.3636149E-03 -5.5931349E-01
-3.6918926E-01 -2.7985580E+02 -6.0620715E+02 -3.8399075E+03
    37  2.0482785E+01  4.8821487E-02      -7.7494845E-02  4.6593743E-01
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-1.6836719E-01 -6.7347412E+02  3.5044428E+02  3.1239064E+03
    38  2.0797837E+01  4.8081923E-02       3.6020841E-03  1.1162838E+00
-6.0559088E-02  2.2891090E+03 -3.6873653E+01 -5.4100921E+02
    39  2.0818150E+01  4.8035008E-02       9.9379693E-01  4.2396268E-02
-9.5048146E-02 -6.7975505E+01 -1.5632077E+03  3.4818034E+02
    40  2.1303884E+01  4.6939797E-02      -2.0170453E-01  1.2433849E-01
5.0539539E-01  4.7861902E+01 -8.4433550E+03  7.3723978E+02
    41  2.1391692E+01  4.6747120E-02       5.0908085E-02  2.1160821E+00
-7.5490868E-02 -1.3196858E+03  6.5613123E+01 -1.8014610E+03
    42  2.1398255E+01  4.6732782E-02       2.6074359E+00 -2.4693046E-01
-1.0467392E+00 -8.3159629E+01  1.8007245E+04 -1.0282111E+03
    43  2.1446767E+01  4.6627075E-02      -6.5296347E-03 -5.8582039E-02
5.8497688E-01 -3.0214269E+02  5.1406131E+02 -3.2686607E+01
    44  2.1861959E+01  4.5741554E-02       2.6947820E-03 -1.0043347E+00
5.1640219E-01  4.8230163E+03  4.3982146E+02  2.0737613E+03
    45  2.1885249E+01  4.5692877E-02      -1.7715444E+00  9.3602586E-02
4.6342999E-01  1.2888658E+02 -1.1007006E+04  5.7738969E+02
    46  2.2241991E+01  4.4960003E-02      -3.2571460E-03  3.4890761E-02
4.9155617E-01  1.1777896E+02 -1.3800214E+02  1.1848722E+01
    47  2.2403216E+01  4.4636449E-02      -1.2454161E-01  1.4957375E-03
-1.0130724E-01 -8.1745550E+01 -7.9935833E+02  3.5913344E+01
    48  2.2759965E+01  4.3936799E-02       6.6625592E-03  2.5368913E-02
4.4697562E-01  2.4192324E+01  6.1683936E+01  1.1292323E+01
    49  2.3232062E+01  4.3043962E-02      -1.7085698E-01 -1.3291314E-01
-5.8915648E-01 -8.3732200E+02  4.8521862E+03 -1.3188541E+01
    50  2.3464089E+01  4.2618318E-02      -1.8899931E-01 -2.4577268E-01
6.5308409E-02 -9.1826593E+02  5.0143881E+02  2.3998307E+01
1==========================================================================================
==============================================
  *** DAC3N ***     < M-4 > FREQUENCY,PERIOD,PARTCIPAT. FACT

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==============================================

  MODE <--FREQUENCY-> <-- PERIOD -->      <----------------------------
PARTICIPATION  FACTOR  ---------------------------------->
           (HZ)            (SEC)            ( X DIR.  )    ( Y DIR.  )    ( Z DIR.
)    ( X ROT.  )    ( Y ROT.  )    ( Z ROT.  )


    51  2.3618101E+01  4.2340406E-02       5.6520003E-03 -1.3867807E+00
-1.8784346E-02 -4.7880720E+03 -1.9520459E+02  1.1702418E+02
    52  2.3715767E+01  4.2166041E-02      -1.6056020E-01 -1.3933379E-02
-5.0024984E-03 -1.9195414E+01  2.0260125E+03 -4.4782085E+01
    53  2.3741442E+01  4.2120441E-02       3.4091709E-02  2.4889934E-02
-6.9847041E-04  7.7887299E+01  8.3517742E+02 -6.3247855E+01
    54  2.3806857E+01  4.2004704E-02       3.7539950E-03 -2.1769699E-01
8.4857765E-04 -5.7044063E+02 -2.9354135E+01  7.7910021E+01
    55  2.3808243E+01  4.2002260E-02      -6.0170280E-02 -4.5841684E-03
8.1756303E-04 -4.8225944E+00  5.6993316E+02 -2.2311122E+01
    56  2.4188872E+01  4.1341324E-02       5.8612796E-02  2.0090065E+00
-4.2168294E-02  4.2550087E+03 -4.1246440E+01 -9.7720204E+02
    57  2.4788881E+01  4.0340667E-02      -1.6730905E+00  4.4431258E-02
7.2911972E-02  1.1320304E+02  3.1077447E+03 -2.1627679E+02
    58  2.5077323E+01  3.9876665E-02      -3.8060511E-02 -3.9143952E-01
3.1172113E-02 -2.2552645E+02 -1.0769128E+01  2.9075772E+02
    59  2.5100245E+01  3.9840248E-02      -2.8642384E+00 -3.9833517E-02
-1.6652779E+00 -6.5309280E+02  5.4889916E+03 -1.9635113E+02
    60  2.5104072E+01  3.9834175E-02       2.7373329E+00 -2.0279896E-01
-4.1979388E-01 -3.3924802E+02 -1.5344965E+03  3.9310442E+02
    61  2.5979575E+01  3.8491777E-02      -2.5472646E-01 -4.6251263E-01
-9.7524990E-01  2.9631374E+03 -1.0385510E+03  1.9793770E+03
    62  2.5995258E+01  3.8468555E-02       2.0436255E-01  4.4149366E-01
```

RBFB_Fix_1.txt

```
1.2303925E+00 -2.9107084E+03  9.8638638E+02 -1.9297383E+03
    63  2.6222193E+01  3.8135636E-02      -1.2346021E-02 -6.1607820E-03
8.8815818E-01  6.8644191E+01  8.1744826E+01  4.7596833E+01
    64  2.6591323E+01  3.7606252E-02      -7.6885880E-03 -8.9347629E-02
1.1694913E-01  2.0081964E+03  5.6333019E+01  1.0788481E+03
    65  2.6732232E+01  3.7408025E-02      -3.0650296E-01 -2.4453066E-01
-2.1685385E-04 -1.6934583E+02  1.7883770E+02  4.2527606E+02
    66  2.6732279E+01  3.7407959E-02       2.1596024E-01 -3.5823123E-01
1.2646772E-02 -6.5683867E+00 -1.3458720E+02  7.2952177E+02
    67  2.7283954E+01  3.6651579E-02      -6.5613332E-04  6.7641574E-01
6.6042280E-03  3.6853424E+02 -1.5087810E+01 -1.4761846E+03
    68  2.7340442E+01  3.6575853E-02       5.0810752E-01 -1.3501351E-03
1.0762309E-02  6.4843509E+01 -6.7669766E+01  3.8179501E+01
    69  2.7530694E+01  3.6323095E-02      -1.3680593E-02 -7.5867822E-04
6.9244878E-01 -1.3691619E+02  3.6880963E+01 -5.5714320E+01
    70  2.8411375E+01  3.5197171E-02      -6.7195486E-03 -6.2924644E-02
9.7198142E-03  5.6818866E+02  1.7312173E+02  1.8047293E+03
    71  2.8629234E+01  3.4929331E-02      -9.6250789E-04  2.5630524E-01
-9.7200461E-03  1.0019978E+01  8.6862821E+03 -6.6421770E+02
    72  2.8730034E+01  3.4806781E-02      -8.2347199E-02  5.6175538E-03
-6.3654257E-03  2.5352388E+02 -7.8606552E+02  4.8051498E+02
    73  2.8730056E+01  3.4806755E-02       4.2930213E-02 -1.9469759E-02
1.1162300E-02  6.1250641E+02  3.7092540E+02  1.1212681E+03
    74  2.8840781E+01  3.4673124E-02      -7.2277654E-02 -3.8297339E-02
4.9686019E-01 -3.2038218E+01 -5.8636492E+02 -2.9626619E+01
    75  2.9012469E+01  3.4467938E-02       3.0496956E-03 -1.7414396E-01
-6.4172706E-03  5.7957914E+02 -7.4868195E+01 -4.4099213E+02
    76  2.9311611E+01  3.4116173E-02       2.1604221E-01  3.6263910E-02
-2.3785052E-01 -3.9752020E+02 -5.1446248E+03  2.3932955E+02
    77  2.9346233E+01  3.4075924E-02      -7.3967396E-02 -4.5916557E-04
1.6770920E+00  3.8426799E+02  2.5005398E+03 -1.3040511E+02
    78  2.9751415E+01  3.3611847E-02      -6.7984077E-02 -2.1717630E-03
-7.4763719E-01  2.6804599E+01  3.0749231E+02 -4.6003336E+00
    79  3.0163998E+01  3.3152104E-02       3.9164041E-01 -1.9393211E-03
-5.6371536E-02  1.8311082E+01  2.4128156E+03 -3.9896057E+01
    80  3.0353771E+01  3.2944836E-02      -4.0053101E-01 -1.0420143E-01
-2.1923831E+00 -1.3325878E+03 -2.3681021E+03  3.5187911E+01
    81  3.1787361E+01  3.1459045E-02       1.1766572E-04 -1.7453436E-01
7.0811390E-03 -1.7366136E+02 -2.0895005E+00  1.5295270E+02
    82  3.2006026E+01  3.1244116E-02       9.5022003E-01  1.6287539E-03
3.0022140E-01  1.0414157E+02 -1.2345874E+03 -9.9338061E+01
    83  3.2116775E+01  3.1136377E-02      -7.8917929E-01  1.5318113E-02
3.9015468E-01  2.8371111E+02 -2.1296718E+03  1.7353319E+02
    84  3.3404397E+01  2.9936179E-02      -1.1981807E-02  3.7818848E-01
-2.1735624E-02  6.0094024E+02  1.0356640E+01 -7.7354743E+00
    85  3.3480677E+01  2.9867974E-02       3.9873822E-01  1.4127210E-02
8.5847418E-02  4.4983267E+01  2.7662178E+01  3.8704318E+01
    86  3.5290529E+01  2.8336214E-02      -3.1489390E-05  1.0338215E-04
-2.9161599E-04  1.7085750E+00  1.9908873E-01  1.0676379E+01
    87  3.5640333E+01  2.8058099E-02       9.7967308E-02 -6.3539055E-02
2.2748815E+00 -4.7345137E+02 -9.1730617E+02 -1.3890003E+02
    88  3.5983309E+01  2.7790662E-02      -9.0923884E-03 -1.8230350E-01
-2.0408134E-01 -1.5430578E+03  3.3765843E+01 -2.2081392E+02
    89  3.7005717E+01  2.7022852E-02      -7.1350311E-01 -1.5551842E-01
-1.3180518E-02  3.4279390E+02 -5.5926207E+02  2.9677771E+02
    90  3.7007441E+01  2.7021593E-02       1.7361745E-01 -5.4890706E-01
-6.2366390E-03  1.3557813E+03  2.0222081E+02  1.7660941E+03
    91  3.7166454E+01  2.6905983E-02      -5.3515553E-01 -2.1397079E-01
-1.8071895E-02  3.4942299E+02 -2.2993291E+02  5.1419186E+02
    92  3.7168533E+01  2.6904479E-02       2.5304280E-01 -4.4610156E-01
-4.2483416E-04  7.9728536E+02  1.6499109E+02  1.4330525E+03
    93  3.7844183E+01  2.6424140E-02       8.7811903E-04  2.3723947E-04
-5.1403815E-01  1.6426427E+01 -7.2376288E-01 -4.9480115E+00
```

RBFB_Fix_1.txt

```
    94  3.9000884E+01  2.5640444E-02       1.9647110E-01  2.1207558E-01
2.0710631E-01  8.0009579E+01 -6.9718617E+02 -1.1015229E+03
    95  3.9051127E+01  2.5607456E-02      -1.9041261E-01  1.3886657E-01
-1.9834718E-01 -3.9203021E+01  6.3121718E+02 -9.5308062E+02
    96  3.9992222E+01  2.5004862E-02       2.6504524E-01 -1.2736479E-02
-3.1481552E-01 -1.1604122E+01  1.7005228E+02  5.2669562E+01
    97  4.0355276E+01  2.4779907E-02       3.4020959E-01 -1.1188396E-02
7.7214541E-02 -3.5774188E+01  6.9719851E+02  6.1080232E+01
    98  4.0770468E+01  2.4527557E-02      -1.0464948E-02 -5.7056580E-01
-2.7915377E-03  2.9376389E+02 -4.6059498E+01 -1.6517019E+02
    99  4.2154930E+01  2.3722018E-02       7.6982092E-04 -3.6834823E-02
4.0360106E-03  3.4595954E+02  1.1581193E+01  8.6825166E+01
   100  4.2361285E+01  2.3606461E-02      -1.2000771E-02 -4.3976152E-04
3.2056103E-01 -4.5303406E+00 -1.9918884E+01 -4.4516167E+00
1==========================================================================
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  *** DAC3N ***     < M-4 > FREQUENCY,PERIOD,PARTCIPAT. FACT

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==============================================

  MODE <--FREQUENCY-> <-- PERIOD -->      <----------------------------
PARTICIPATION  FACTOR  ---------------------------------->
            (HZ)            (SEC)            ( X DIR.  )    ( Y DIR.  )    ( Z DIR.
)    ( X ROT.  )    ( Y ROT.  )    ( Z ROT.  )


   101  4.2824381E+01  2.3351184E-02       1.0726174E+00  1.0208066E-01
-4.1535847E-02 -8.2057848E+01  1.0026830E+03  1.1709780E+02
   102  4.2825477E+01  2.3350586E-02      -9.6662487E-02  1.1917860E+00
8.4309029E-02 -9.3797205E+02 -1.0036922E+02 -2.0600546E+03
   103  4.3467113E+01  2.3005899E-02      -3.9061986E-04  3.4540485E-03
3.9503822E-04 -1.4078841E+00 -3.1305152E-01  1.0175765E+00
   104  4.5305275E+01  2.2072485E-02      -1.1222165E-02 -1.7859089E-02
3.1549045E-01  3.2610601E+02 -5.8890821E+01  8.1773767E+01
   105  4.7191810E+01  2.1190117E-02       4.5483385E-03 -6.0269607E-02
9.1098485E-02 -7.4774808E+01 -3.4151256E+01 -5.1383997E+02
   106  4.7429180E+01  2.1084067E-02       2.0501060E-03 -8.5237524E-02
-3.0711550E-01  8.1930012E+02  1.8996399E+02 -1.3606988E+03
   107  4.7576863E+01  2.1018620E-02       1.4602399E-01  6.9600257E-02
-2.7808958E-01  6.1964539E+01 -4.7664363E+02  2.3829770E+02
   108  4.7650416E+01  2.0986176E-02       1.1499813E-02  2.0201949E-02
1.6168821E-01 -1.3921901E+01  2.5590000E+01  7.8049045E+01
   109  4.8735266E+01  2.0519022E-02      -2.5861784E-02  1.2713608E-01
2.7914660E-01 -6.5549532E+02 -8.3518104E+01  3.8811620E+02
   110  4.9242630E+01  2.0307607E-02      -1.4839058E-02 -3.4637624E-03
-3.6922933E-02  1.8734740E+01 -1.7478226E+02 -2.1014102E+01
   111  4.9255206E+01  2.0302423E-02      -6.4839804E-03  3.5912339E-02
1.0839910E-01 -2.2202167E+02 -1.4604013E+01  8.8400119E+01
   112  4.9826236E+01  2.0069748E-02       2.3780720E-02  3.6924999E-03
4.1439218E-03 -1.5276956E+01  2.3968306E+02  1.4368175E+01
   113  5.1113578E+01  1.9564273E-02      -1.8896352E-02  3.9957406E-02
-1.4032113E-02 -1.6471715E+02 -1.4906705E+01 -4.2271119E+01
   114  5.1247241E+01  1.9513245E-02      -2.0001136E-01  3.8833498E-03
-4.6374300E-02  5.5745963E+01 -2.1188270E+01 -6.3242787E+01
   115  5.1451002E+01  1.9435967E-02       1.8337579E-02  1.3591653E-01
-1.8135812E-03  1.1253410E+02  5.5332074E+00 -3.5755239E+01
   116  5.1451223E+01  1.9435884E-02      -3.4026843E-02 -5.7215399E-03
-2.0279775E-02  3.3552369E+00 -6.3197387E+01 -1.9183344E+01
   117  5.1547174E+01  1.9399706E-02      -2.0604601E-02 -1.7739065E-01
3.9475825E-03 -1.4143150E+02 -2.1925788E+01  1.1143168E+01
   118  5.2440197E+01  1.9069341E-02       2.2674757E-02 -3.3726401E-02
5.8359631E-03 -9.4565845E+00 -7.2945793E+00 -3.9632101E+02
```

```
   119  5.3349548E+01  1.8744301E-02       1.3181159E-02  2.2282953E-03
-1.3993527E-01 -1.1809856E+01 -3.6596563E+02  7.9599252E+00
   120  5.3906156E+01  1.8550757E-02       2.3817560E-02 -9.8812519E-03
-5.3018134E-02  2.0818471E+01 -6.4194814E+01 -5.0773986E+01
   121  5.3952545E+01  1.8534807E-02       1.7587838E-02  2.8878600E-02
-3.1017937E-02 -8.2369366E+01 -2.6141296E+01  5.1184797E+01
   122  5.4253916E+01  1.8431849E-02      -1.8554905E-02 -6.2043611E-04
-3.6071036E-03  9.7493421E-01 -2.9937186E+01  1.4184264E+00
   123  5.4253923E+01  1.8431847E-02      -1.1459961E-05 -2.2575200E-02
1.7452816E-04  2.6227329E+01 -1.0322755E+00 -7.1993914E+00
   124  5.7454572E+01  1.7405055E-02       7.8928668E-04 -4.9185686E-02
-1.1473387E-02  7.9423435E+01  6.4216269E-01  7.5384898E+02
   125  5.8050020E+01  1.7226523E-02      -2.5675262E-02 -1.7734992E-03
-1.0426393E+00 -2.7004027E+01  1.1565765E+02 -3.6393831E+01
   126  5.8273669E+01  1.7160409E-02      -4.0033960E-01 -2.3469733E-02
2.6038407E-02  5.7625617E+00 -2.0148935E+02  4.3927764E+01
   127  5.8361920E+01  1.7134460E-02       3.5321533E-02  5.3755507E-03
5.9296614E-01  3.8166319E+01 -3.6616231E+01  7.5388135E+00
   128  5.8592914E+01  1.7066910E-02       2.6137467E-02 -2.1810786E-01
8.0342364E-03 -2.6919691E+01 -3.4191388E+00 -8.6351848E+02
   129  5.9550741E+01  1.6792402E-02       3.6415445E-01  1.3821532E-02
1.7090912E-02 -3.4415374E+00  4.9085016E+01 -3.8258325E+01
   130  6.0054776E+01  1.6651465E-02      -8.5281950E-03  2.2209617E-01
4.1978143E-03 -1.7784222E+01  2.6370387E+01  1.4872322E+02
   131  6.0105436E+01  1.6637430E-02      -2.1675007E-01  1.4178639E-03
-1.5878437E-03  9.3651361E-01  2.7512141E-01 -1.5882109E+01
   132  6.0337812E+01  1.6573355E-02      -3.0455074E-03 -1.6170308E-01
-1.8485807E-03  2.7428822E+01 -1.9785532E+01 -7.5253127E+01
   133  6.0644354E+01  1.6489581E-02      -3.2312179E-02  2.1454359E-02
1.6977470E-01 -8.9938330E+01  3.4412844E+02 -4.5082422E+01
   134  6.1144480E+01  1.6354706E-02      -5.1064165E-02  1.9562329E-01
-3.0457113E-03  3.2981304E+01  1.2657433E+01 -2.2433720E+01
   135  6.1947448E+01  1.6142715E-02      -1.2474868E-01 -9.0473861E-02
2.2352417E-03 -3.5790052E+01  4.1717748E+01 -5.7355891E+01
   136  6.3005198E+01  1.5871706E-02      -2.5387460E-04  2.9654047E-04
1.0307154E-02  4.7872446E+00 -9.4990376E+00 -6.9528951E-01
   137  6.3582052E+01  1.5727709E-02      -6.7546262E-04  4.4852211E-03
2.6956010E-01  3.0669355E+02  1.3342263E+01 -2.4484086E+01
   138  6.4682725E+01  1.5460078E-02       2.2887548E-03 -7.6751965E-03
1.0378927E-01 -3.2145852E+02  3.7457926E+01  2.1631167E+01
   139  6.6153458E+01  1.5116368E-02       7.2825383E-03 -1.1007990E-01
-2.6802675E-02  1.8535965E+02 -1.2630022E+01 -6.5303900E+02
   140  6.6187367E+01  1.5108623E-02       5.7549829E-02  1.5741430E-02
6.1063798E-03 -1.3193963E+00 -4.7286381E+01 -3.6606509E+01
   141  6.6810153E+01  1.4967785E-02      -2.1105255E-02  1.6624095E-01
1.6508791E-02 -1.3258883E+02  2.3803514E+01  6.1406873E+02
   142  6.7496861E+01  1.4815504E-02       1.0656471E-04  3.7464914E-05
2.2519085E-01  1.4990808E+01  3.1566099E+02 -3.5257925E+00
   143  6.8652525E+01  1.4566107E-02      -1.6119660E-03 -1.2524541E-04
-6.7127936E-02  1.2256025E+01  2.6409039E+02 -4.3265152E+00
   144  6.8821953E+01  1.4530247E-02      -4.6773429E-02 -3.1530279E-03
2.7592375E-02  3.2478245E+00  2.1174223E+01  4.4069161E+01
   145  6.8863386E+01  1.4521505E-02       1.0142967E-02 -8.7522225E-02
5.3147410E-03  9.2687699E+01 -5.0675176E+00 -6.7817047E+01
   146  6.9348089E+01  1.4420008E-02      -4.0012578E-05  3.7779971E-03
9.5179761E-03  1.5295732E+02 -2.7781686E+00  4.9156855E+00
   147  7.0219430E+01  1.4241073E-02       1.5319135E-03 -3.6149674E-04
2.3375867E-02  6.8392668E+00 -2.6833616E+01 -3.5534636E+00
   148  7.2048265E+01  1.3879585E-02       8.7512856E-02 -6.1214261E-03
1.2615545E-02 -3.4518584E+00 -1.7267556E+02 -3.0085650E+01
   149  7.2048567E+01  1.3879527E-02       1.8234579E-03  1.0283989E-01
1.9117397E-05  1.9919500E+02  8.8537733E-01 -3.2655668E+02
   150  7.4066889E+01  1.3501310E-02       1.5299878E-02 -2.5714988E-02
```

RBFB_Fix_1.txt

3.5749284E-03 -9.5681800E+01 -5.1278021E+01 -1.2265623E+01

1==========

*** DAC3N *** < M-4 > FREQUENCY,PERIOD,PARTCIPAT. FACT

==========

MODE <--FREQUENCY-> <-- PERIOD --> <---------- PARTICIPATION FACTOR ---------->

(HZ) (SEC) (X DIR.) (Y DIR.) (Z DIR.) (X ROT.) (Y ROT.) (Z ROT.)

151 7.4069383E+01 1.3500855E-02 -1.7719563E-02 -1.8115198E-02 5.4782520E-04 -6.9087947E+01 5.6884454E+01 2.7594432E+01

152 7.4861086E+01 1.3358075E-02 1.1252755E-03 -7.9286047E-04 2.2958246E-01 -1.1240666E+01 1.4404016E+02 -2.4574244E+00

153 7.5091802E+01 1.3317033E-02 -2.2728646E-04 8.9505325E-03 4.2121670E-03 -7.8402862E+01 -1.7407573E+01 -1.3715852E+02

154 7.6473054E+01 1.3076501E-02 4.5927632E-04 -6.1942271E-05 -7.7909583E-04 7.9139062E+00 2.7740569E+00 6.3817916E+00

155 7.6647477E+01 1.3046744E-02 3.3805845E-02 5.8937857E-03 4.1706809E-03 5.1410436E+00 3.8312141E+01 -3.9030160E+01

156 7.6724223E+01 1.3033693E-02 7.1028509E-04 -1.6775955E-02 1.3834438E-02 -1.0657790E+02 1.0882644E+01 1.6675514E+01

157 7.6793155E+01 1.3021994E-02 -2.3496115E-02 6.5604833E-04 2.0693560E-02 -2.1663086E+01 1.0412369E+02 -4.5220504E+00

158 7.6941902E+01 1.2996819E-02 1.6734939E-03 1.2484073E-02 -4.8718990E-02 1.9304013E+02 -5.8748523E+01 -1.6655523E+01

159 7.6943480E+01 1.2996553E-02 2.4168602E-02 -2.5418448E-03 -1.0843452E-02 -8.0705587E+00 -5.9714225E+01 -3.8176814E+00

160 7.7047121E+01 1.2979070E-02 1.2167668E-03 4.1833322E-03 5.7975965E-02 -1.4419364E+02 8.6378378E+01 -1.3060812E+01

161 7.7516531E+01 1.2900474E-02 1.7453257E-03 2.4635491E-03 -1.3965991E-01 -1.5338213E+02 -3.8038845E+02 -1.0164642E+01

162 7.9710849E+01 1.2545344E-02 3.5033426E-02 1.6075700E-03 2.5657442E-03 4.2273733E-01 8.1164609E+00 -2.5371089E+01

163 7.9714080E+01 1.2544835E-02 -1.3495707E-03 2.6529927E-02 -4.9603659E-04 -1.5091500E+01 -8.9796474E+00 -3.4224645E+01

164 8.1583641E+01 1.2257359E-02 -6.4055185E-03 1.5054487E-03 3.5499145E-03 -1.9335487E+00 -1.6966322E+01 6.8532057E+00

165 8.1583646E+01 1.2257358E-02 -2.1453478E-03 -3.4329854E-03 -4.7596658E-05 1.5648174E+01 -9.5140866E-01 5.8690333E+00

166 8.1736711E+01 1.2234405E-02 3.6429604E-02 -1.0471133E-02 3.5205719E-01 -2.0373704E+01 -1.5920837E+02 -6.9671203E+01

167 8.3025835E+01 1.2044444E-02 9.3974331E-02 -7.7855845E-02 -1.1265260E-02 9.2372591E-01 3.1193893E+01 -4.5304605E+02

168 8.3198126E+01 1.2019502E-02 -2.1194605E-02 2.2711297E-02 -4.9427277E-02 -2.7140383E+01 1.2867968E+02 1.1397579E+02

169 8.3947859E+01 1.1912156E-02 2.5439433E-02 -1.4536708E-02 7.2845956E-03 -3.1996622E+01 -1.7249052E+00 -2.0238955E+02

170 8.7818096E+01 1.1387175E-02 1.6035797E-03 7.8871264E-04 1.7011187E-04 4.4729670E+00 6.1131075E+01 2.4059778E+00

171 8.7818178E+01 1.1387164E-02 1.6678858E-03 1.0086802E-04 -2.2763374E-03 -4.0521884E+01 4.3394670E+00 -2.0932166E+01

172 8.8302267E+01 1.1324738E-02 1.7070399E-03 8.2958896E-03 6.1478441E-03 -5.9324845E+01 6.8700712E+00 -2.3530613E+00

173 8.9426660E+01 1.1182348E-02 5.0183874E-01 3.8195370E-01 -7.4118883E-03 -1.9937942E+01 3.2107926E+01 8.9839160E+01

174 9.0420290E+01 1.1059465E-02 1.3283349E-04 1.0510148E-03 -4.1370859E-06 6.9300128E-01 3.0467858E+00 -1.1009657E+00

175 9.0420290E+01 1.1059465E-02 1.1519510E-03 -1.7189679E-04

RBFB_Fix_1.txt

```
2.5842401E-05 -3.2614754E+00  8.7655164E-01  2.0090621E+00
   176  9.1408450E+01  1.0939908E-02       -2.9901158E-01  4.1098945E-01
-4.5994712E-03 -3.0369142E+01 -2.4033240E+01 -6.1226305E+02
   177  9.3606572E+01  1.0683011E-02       -4.0201295E-02  2.9654949E-02
3.0036472E-01  4.3772558E+01  1.4618728E+02 -4.5106059E+01
   178  9.3902300E+01  1.0649366E-02       -5.0365399E-03 -2.9647847E-03
-2.3944358E-02 -6.6684574E+00  8.8833550E+01 -7.2485672E-01
   179  9.4088932E+01  1.0628243E-02        3.1592268E-04 -6.7976315E-03
-1.6738581E-03 -4.5671187E+01 -1.3843300E+01  2.5695866E+00
   180  9.4549776E+01  1.0576440E-02       -5.3905962E-03 -1.7670445E-04
-2.4896529E-02  5.7904546E+00 -9.9917419E+00 -2.7093195E+00
   181  9.6295613E+01  1.0384689E-02        4.9976257E-06  5.2161537E-07
-7.3216211E-06 -2.4435937E-03  1.4905369E-03  1.6928090E-01
   182  9.8148896E+01  1.0188602E-02       -1.9606958E-02  1.1598019E-02
3.5201916E-01  1.2165398E+01  1.2614391E+02 -1.5734759E+01
   183  9.9270637E+01  1.0073472E-02       -6.7401280E-04  9.3050646E-05
-1.9733914E-04 -6.5802656E-01 -1.0107108E+01 -2.5287601E-01
   184  9.9270650E+01  1.0073471E-02        7.0681907E-05 -7.8912864E-04
-3.5369055E-05  1.0791228E+01 -5.6498983E-01 -7.8233078E+00
   185  1.0003887E+02  9.9961142E-03        2.2670558E-03 -1.5811948E-02
5.3348947E-03 -1.5996607E+02 -1.1370436E+01  1.5016987E+01
   186  1.0066494E+02  9.9339451E-03       -2.5030549E-02  1.9472011E-03
1.1311354E-02 -1.7164157E+00  4.1153578E+02 -4.0007089E+01
   187  1.0068551E+02  9.9319157E-03        1.4303739E-03 -1.8100987E-02
-4.8238289E-03 -2.3828079E+02  2.3134970E+01  1.0281471E+03
   188  1.0478091E+02  9.5437234E-03        2.0573349E-02 -1.4260979E-02
-3.6535806E-01  3.2986063E+01 -1.3209811E+03  8.5213622E+00
   189  1.0483167E+02  9.5391023E-03       -2.0089351E-02  1.1469030E-02
2.8209521E-01 -4.2668885E+01  1.3130092E+03 -6.8978857E+00
   190  1.0671601E+02  9.3706652E-03        2.0451568E-02 -8.8620162E-03
-3.4510063E-02  3.9925545E+01 -1.5122429E+02  1.7752134E+01
   191  1.0766739E+02  9.2878633E-03        1.3003400E-02  2.3235839E-02
3.7036493E-01  1.4064769E+02  1.5277988E+01 -7.8336267E+00
   192  1.0768382E+02  9.2864463E-03        1.0457854E-02  1.9983630E-02
3.1565717E-01  1.1822897E+02  1.3443632E+02 -1.7536646E+01
   193  1.0768855E+02  9.2860380E-03       -1.3857653E-02 -2.5030408E-02
-3.9724621E-01 -2.6907943E+02 -2.1911605E+01 -1.1920171E+02
   194  1.0833564E+02  9.2305730E-03        1.6060272E-04 -3.1087339E-04
1.7378848E-03 -5.2792012E+00 -8.7654369E+00 -1.0705083E-01
   195  1.0844255E+02  9.2214724E-03        1.4241627E-03 -1.1733449E-03
5.5549789E-02 -4.0702216E+01  2.7463301E+01 -1.2234110E+00
   196  1.1117723E+02  8.9946472E-03        5.0156064E-05 -5.2717807E-04
5.4360603E-03 -9.2946387E+00  9.7322283E+00 -7.5136684E-01
   197  1.1149830E+02  8.9687464E-03        1.3069266E-05  2.1449277E-06
4.6815921E-05 -7.2316129E-01 -2.4688927E+01  1.2638519E-03
   198  1.1149830E+02  8.9687463E-03       -8.9586924E-07  6.1764816E-06
-1.6568418E-05  2.4748073E+01 -8.1097470E-01 -2.5436897E+00
   199  1.1558510E+02  8.6516340E-03       -1.7580292E-03 -3.3807772E-04
-9.6850572E-03  8.3240422E+00  2.2640451E+02  9.3039718E+00
   200  1.1558562E+02  8.6515953E-03        9.9187184E-05 -1.5662989E-03
1.2625247E-04 -2.2705311E+02  1.3085595E+01  2.1066325E+02

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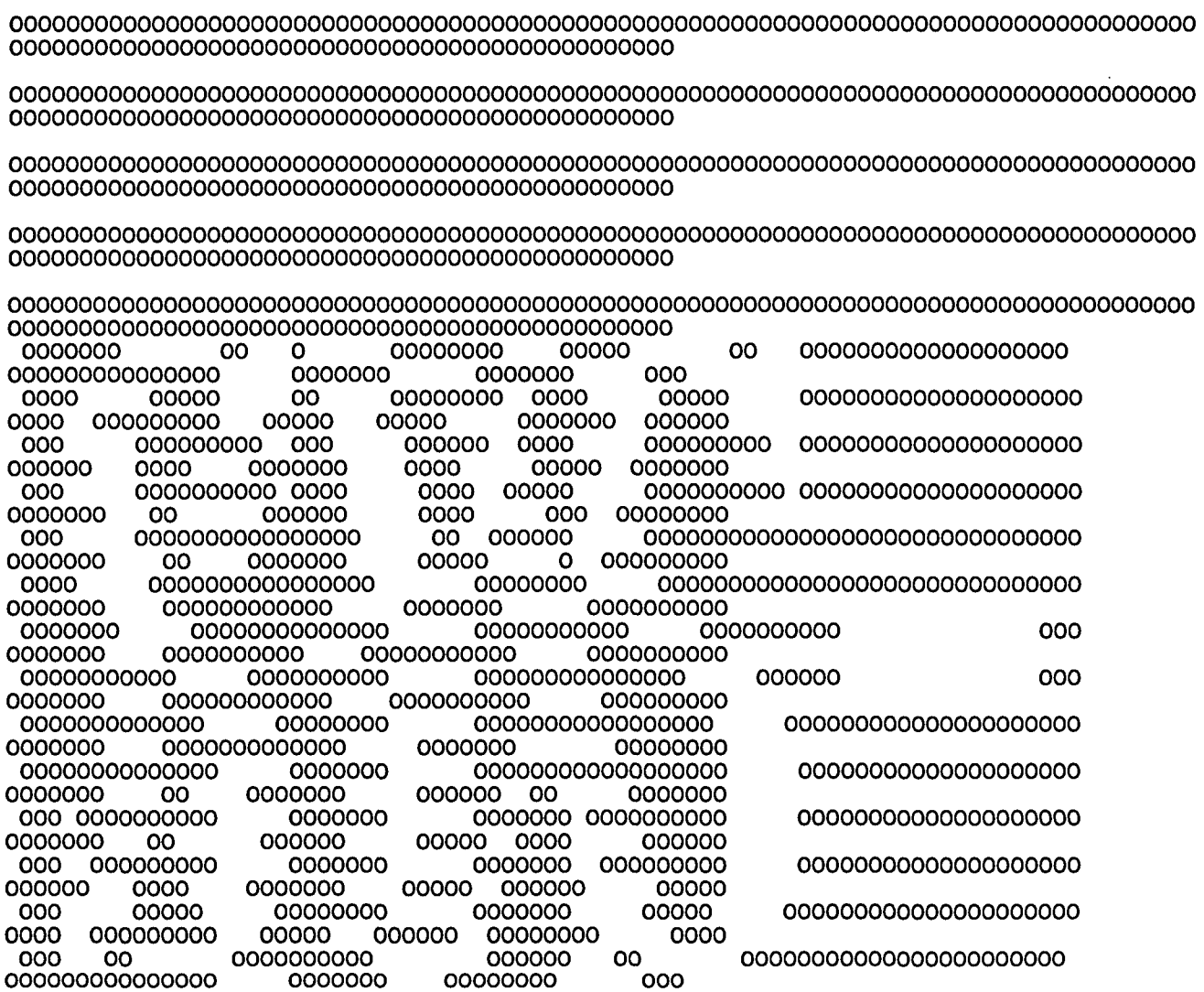
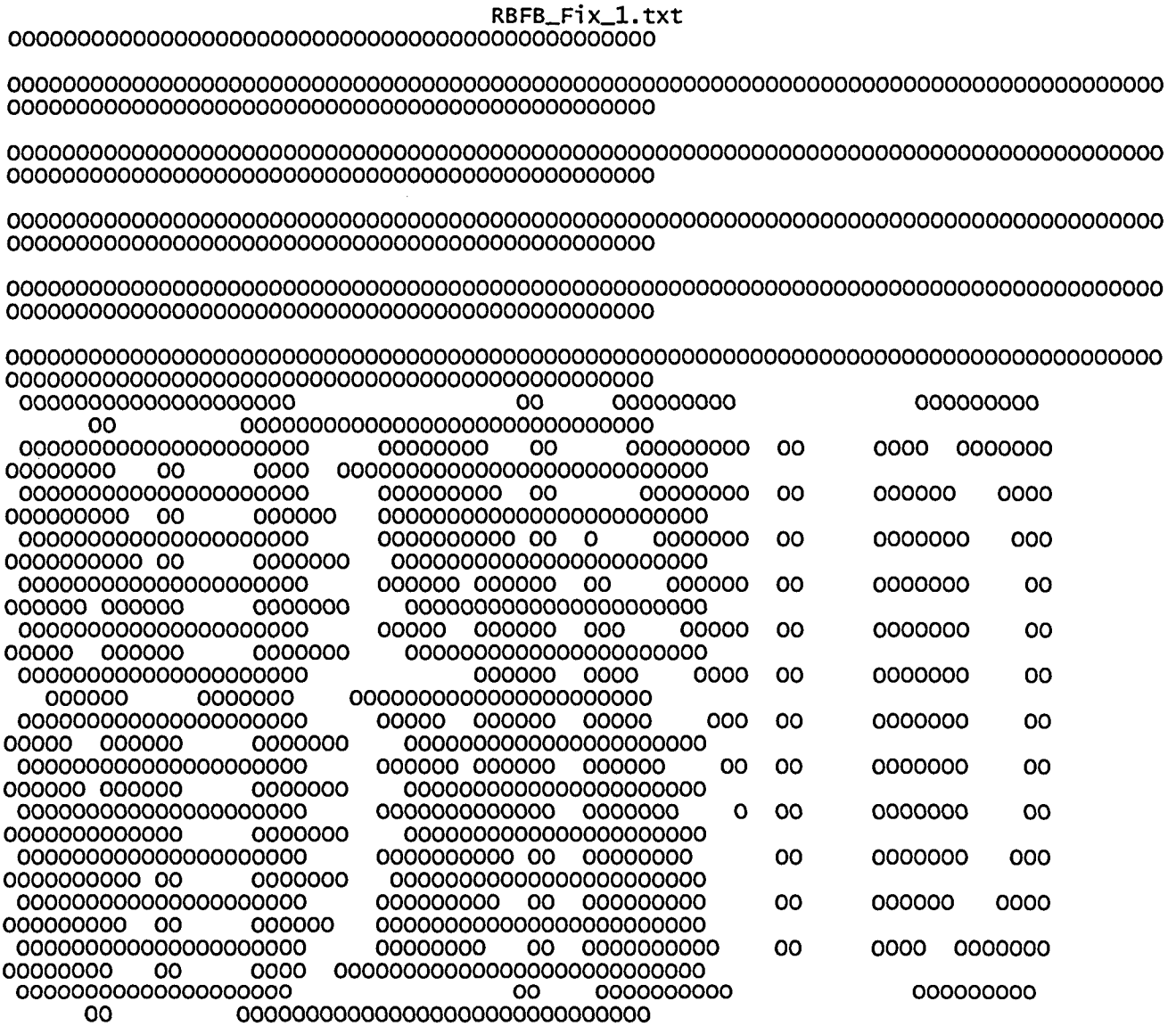
RBFB_Fix_1.txt



RBFB_Fix_1.txt



RBFB_Fix_1.txt

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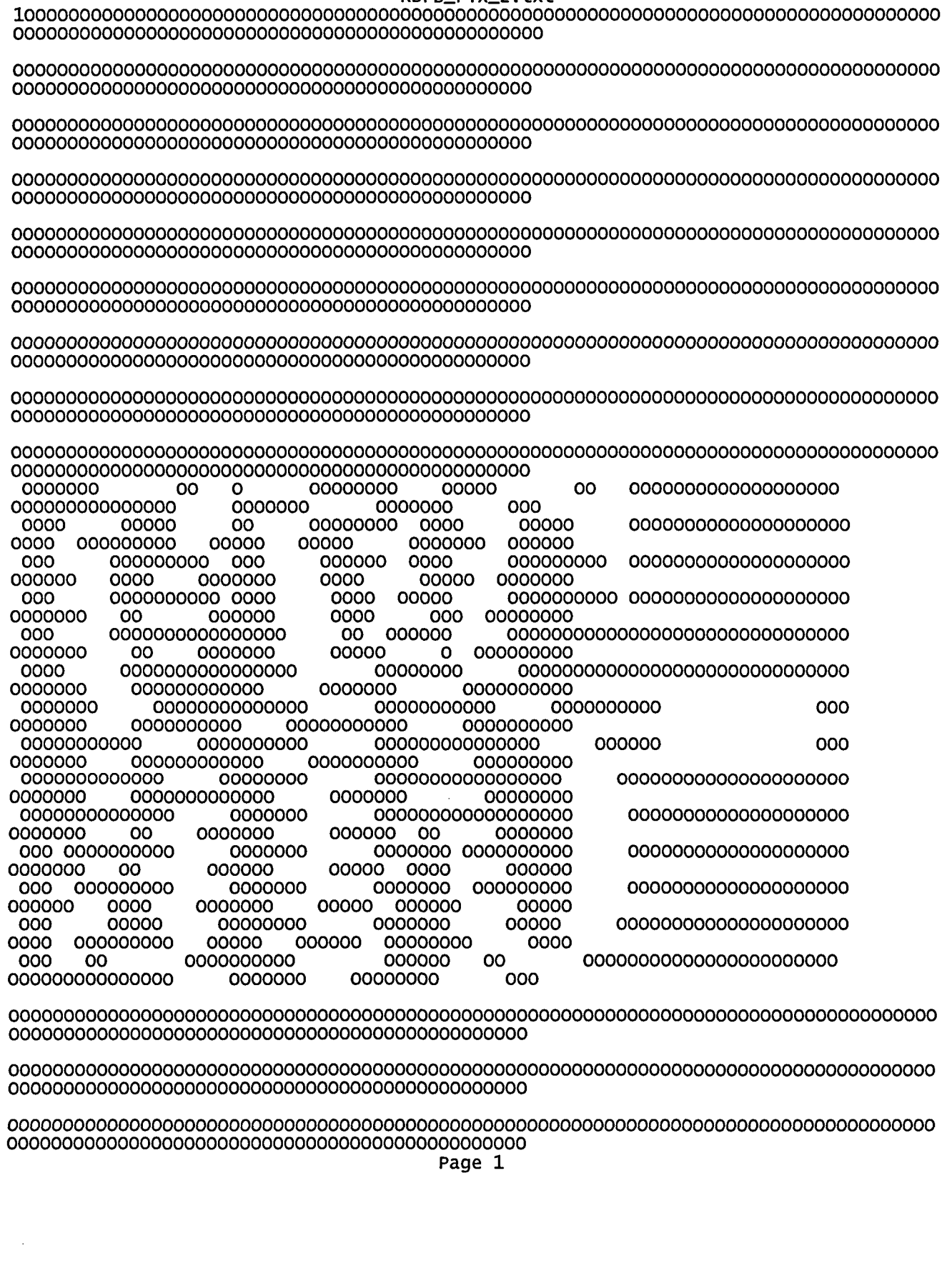
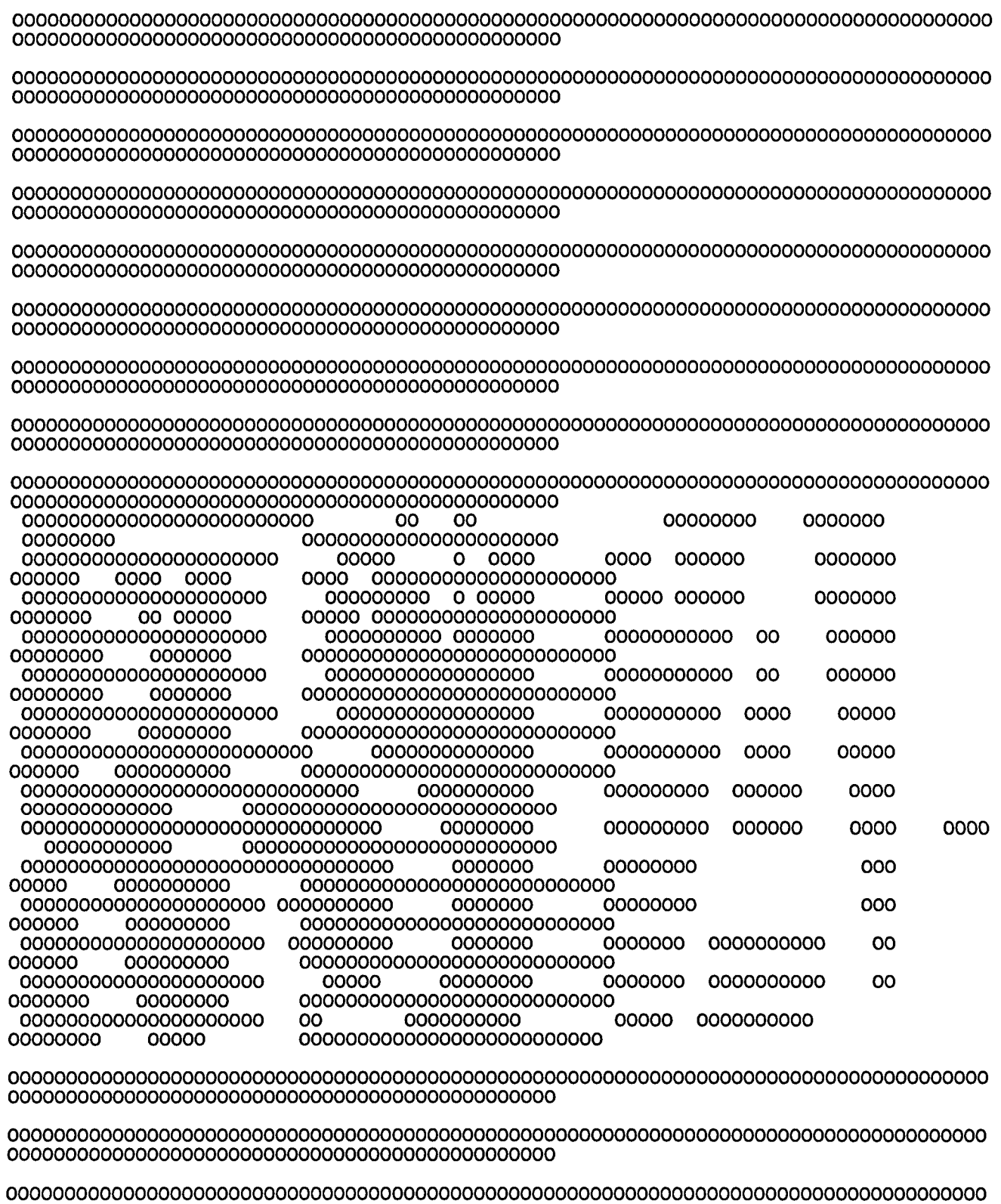
RBFB_Fix_2.txt



RBFB_Fix_2.txt



RBFB_Fix_2.txt

```
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
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1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
          TITL ESBWR
               NJOB LCPU LCHK LPRN
          ISTP 1000 1000    1    1
               LEIG MEIU MTRV LPRN NPR1 NPR2           TOLE       EMIN       EMAX
          MSTP    1   80  300    2  200  200                       0.0      800.0
          MENR
               MSTP MDV1 MDV2 LPRN                     DLTA       ALFA       BETA
           DSTP 2200    5    1    2                     0.010
          
               LITE NITE NKTM NKIT LCNV LSTU LSTP
          ITER    1   10    1   10  110         1
                        EPSD       EPSF       EPSE       EMSD       EMSF       EMSE
          ITE2       1.0E-08    1.0E-06    1.0E-12    1.0E-08    1.0E-04    1.0E-12
               NCOD MCOD IDIR       XMAX
          WAV  1000    1    1        0.0
          WAV  1000    2    2        0.0
          WAV  1000    3    3        0.0
               KEY1 KEY2 KEY3 INUM
          OUTR
          EWAV JOI  ACC
          EWAV JOI  DIS
          EWAV SPL
          EWAV DSL
          ================================================================================
          ================================================================================
           JOI DATA
          ================================================================================
               INUM    XYZXYZ   X-COORD    Y-COORD    Z-COORD RAY-DAMP1 RAY-DAMP2
           BASEMAT
          JOI     2            1249.43     143.38  -1150.00       -1.0       -1.0
```

RBFB_Fix_2.txt

```
                                1050.00       0.00  -1150.00       -1.0       -1.0
                                1050.00       0.00  -1150.00       -1.0       -1.0

          JOI       1           1050.00       0.00  -1550.00       -1.0       -1.0
                                1050.00       0.00  -1550.00       -1.0       -1.0
                                1050.00       0.00  -1550.00       -1.0       -1.0

          JOI     111   FFFFFF  1050.00       0.00  -1550.00       -1.0       -1.0
          JOI    9999   FFFFFF  9000.00       0.00      0.00       -1.0       -1.0

           PEDESTAL
          JOI     303             0.00       0.08    465.00       -1.0       -1.0
               23003              0.00       0.00    465.00       -1.0       -1.0
               33003              0.00       0.00    465.00       -1.0       -1.0

          JOI     377             0.00       0.04    241.65       -1.0       -1.0

          JOI     302             0.00       0.04   -100.00       -1.0       -1.0
               23002              0.00       0.00   -100.00       -1.0       -1.0
               33002              0.00       0.00   -100.00       -1.0       -1.0
          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

================================================================================
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          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

          JOI     376            -1.73       0.04   -275.30       -1.0       -1.0

          JOI     301            -1.73       0.04   -640.00       -1.0       -1.0
               23001              0.00       0.00   -640.00       -1.0       -1.0
               33001              0.00       0.00   -640.00       -1.0       -1.0

           RCCV
          JOI     209           -16.40      -2.09   3400.00       -1.0       -1.0
               22009              0.00       0.00   3400.00       -1.0       -1.0
               32009              0.00       0.00   3400.00       -1.0       -1.0

          JOI     208           167.01       1.98   2700.00       -1.0       -1.0
               22008              0.00       0.00   2700.00       -1.0       -1.0
               32008              0.00       0.00   2700.00       -1.0       -1.0

           OI     273           141.35       1.65   2503.00       -1.0       -1.0

          JOI     206           141.35       1.65   1750.00       -1.0       -1.0
               22006              0.00       0.00   1750.00       -1.0       -1.0
               32006              0.00       0.00   1750.00       -1.0       -1.0

          JOI     205            -5.66      -2.05   1357.00       -1.0       -1.0
               22005              0.00       0.00   1357.00       -1.0       -1.0
               32005              0.00       0.00   1357.00       -1.0       -1.0

          JOI     204             0.00       0.00    906.00       -1.0       -1.0
               22004              0.00       0.00    906.00       -1.0       -1.0
               32004              0.00       0.00    906.00       -1.0       -1.0

          JOI     203             0.00       0.00    465.00       -1.0       -1.0
               22003              0.00       0.00    465.00       -1.0       -1.0
               32003              0.00       0.00    465.00       -1.0       -1.0
```

RBFB_Fix_2.txt

```
JOI     202              -20.50    -25.60   -100.00      -1.0      -1.0
      22002                0.00      0.00   -100.00      -1.0      -1.0
      32002                0.00      0.00   -100.00      -1.0      -1.0

JOI     201               32.79      2.42   -640.00      -1.0      -1.0
      22001                0.00      0.00   -640.00      -1.0      -1.0
      32001                0.00      0.00   -640.00      -1.0      -1.0

 RBFB
JOI     110                0.00      0.00   5240.00      -1.0      -1.0
      21010                0.00     94.00   5240.00      -1.0      -1.0
      31010              574.48     19.07   5240.00      -1.0      -1.0

JOI     109              -25.33     19.08   3400.00      -1.0      -1.0
      21009                0.00    -25.00   3400.00      -1.0      -1.0
      31009              525.00    -12.50   3400.00      -1.0      -1.0
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

JOI     108               350.80   -148.80   2700.00      -1.0      -1.0
      21008               875.92     -1.97   2700.00      -1.0      -1.0
      31008              1319.39    258.01   2700.00      -1.0      -1.0

JOI     107              1919.51      4.81   2250.00      -1.0      -1.0
      21007              1646.16     80.46   2250.00      -1.0      -1.0
      31007              1663.15    252.66   2250.00      -1.0      -1.0

JOI     106               626.88     -7.74   1750.00      -1.0      -1.0
      21006              1125.00     80.46   1750.00      -1.0      -1.0
      31006               972.29    214.47   1750.00      -1.0      -1.0

JOI     105               702.09     27.19   1357.00      -1.0      -1.0
      21005              1125.00     52.65   1357.00      -1.0      -1.0
      31005               972.72    200.11   1357.00      -1.0      -1.0

JOI     104               696.88    -10.45    906.00      -1.0      -1.0
      21004              1219.21    116.26    906.00      -1.0      -1.0
      31004               997.37    218.38    906.00      -1.0      -1.0

JOI     103              1676.13    -58.92    465.00      -1.0      -1.0
      21003              1939.07    113.19    465.00      -1.0      -1.0
      31003              1636.85    318.50    465.00      -1.0      -1.0

JOI     102              1741.38    163.95   -100.00      -1.0      -1.0
      21002              1942.49    124.35   -100.00      -1.0      -1.0
      31002              1662.14    319.14   -100.00      -1.0      -1.0

JOI     101              1813.28    142.13   -640.00      -1.0      -1.0
      21001              1822.14     14.85   -640.00      -1.0      -1.0
      31001              1608.91    175.79   -640.00      -1.0      -1.0
================================================================================
 REFERENCE POINT FOR SHEAR BEAM
JOI   19021    FFFFFF   10000.0       0.00      0.00      -1.0      -1.0
```

RBFB_Fix_2.txt

```
JOI  19303    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19302    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19301    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0

JOI  19209    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19208    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19206    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19205    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19204    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19203    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19202    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0
JOI  19201    FFFFFF  10000.0      0.00      0.00      -1.0      -1.0

JOI  19110    FFFFFF  10000.0     94.00      0.00      -1.0      -1.0
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
JOI  19109    FFFFFF  10000.0    -25.00      0.00      -1.0      -1.0
JOI  19108    FFFFFF  10000.0     -1.97      0.00      -1.0      -1.0
JOI  19107    FFFFFF  10000.0     80.46      0.00      -1.0      -1.0
JOI  19106    FFFFFF  10000.0     80.46      0.00      -1.0      -1.0
JOI  19105    FFFFFF  10000.0     52.65      0.00      -1.0      -1.0
JOI  19104    FFFFFF  10000.0    116.26      0.00      -1.0      -1.0
JOI  19103    FFFFFF  10000.0    113.19      0.00      -1.0      -1.0
JOI  19102    FFFFFF  10000.0    124.35      0.00      -1.0      -1.0
JOI  19101    FFFFFF  10000.0     14.85      0.00      -1.0      -1.0
================================================================================
 REFERENCE POINT FOR SLAB RIGID BEAM
JOI  19129    FFFFFF    -25.33     19.08  10000.0      -1.0      -1.0
JOI  19128    FFFFFF    350.80   -148.80  10000.0      -1.0      -1.0
JOI  19126    FFFFFF    626.88      4.81  10000.0      -1.0      -1.0
JOI  19125    FFFFFF    702.09     27.19  10000.0      -1.0      -1.0
JOI  19124    FFFFFF    696.88    -10.45  10000.0      -1.0      -1.0
JOI  19123    FFFFFF   1676.13    -58.92  10000.0      -1.0      -1.0
JOI  19122    FFFFFF   1741.38    163.95  10000.0      -1.0      -1.0
JOI  19121    FFFFFF   1813.28    142.13  10000.0      -1.0      -1.0

JOI  19233    FFFFFF      0.00      0.00  10000.0      -1.0      -1.0
JOI  19232    FFFFFF    -20.50    -25.60  10000.0      -1.0      -1.0
JOI  19231    FFFFFF     32.79      2.42  10000.0      -1.0      -1.0
JOI  19701    FFFFFF    141.35      1.65  10000.0      -1.0      -1.0
================================================================================
 OSCILLATOR
 JOI    9101    FF FFF      0.00      0.00   5240.00      -1.0      -1.0
 JOI    9102    FF FFF      0.00      0.00   5240.00      -1.0      -1.0
 JOI    9103    FF FFF      0.00      0.00   5240.00      -1.0      -1.0
 JOI    9104    FF FFF      0.00      0.00   5240.00      -1.0      -1.0
 JOI    9105    FF FFF      0.00      0.00   5240.00      -1.0      -1.0
 JOI    9106    FF FFF      0.00      0.00   5240.00      -1.0      -1.0

 JOI    9081    FF FFF    350.80   -148.80   2700.00      -1.0      -1.0

 JOI    9071    FF FFF   1919.51      4.81   2250.00      -1.0      -1.0
 JOI    9072    FF FFF   1919.51      4.81   2250.00      -1.0      -1.0
 JOI    9073    FF FFF   1919.51      4.81   2250.00      -1.0      -1.0
 JOI    9074    FF FFF   1919.51      4.81   2250.00      -1.0      -1.0
```

RBFB_Fix_2.txt

```
 JOI   9075    FF FFF   1919.51      4.81   2250.00      -1.0      -1.0

 JOI   9061    FF FFF    626.88     -7.74   1750.00      -1.0      -1.0
 JOI   9062    FF FFF    626.88     -7.74   1750.00      -1.0      -1.0
 JOI   9063    FF FFF    141.35      1.65   1750.00      -1.0      -1.0
 JOI   9064    FF FFF    141.35      1.65   1750.00      -1.0      -1.0

 JOI   9051    FF FFF    702.09     27.19   1357.00      -1.0      -1.0

 JOI   9041    FF FFF    696.88    -10.45    906.00      -1.0      -1.0

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
 JOI   9031    FF FFF   1676.13    -58.92    465.00      -1.0      -1.0
 JOI   9032    FF FFF      0.00      0.00    465.00      -1.0      -1.0
 JOI   9033    FF FFF      0.00      0.00    465.00      -1.0      -1.0

 JOI   9021    FF FFF   1741.38    163.95   -100.00      -1.0      -1.0
 JOI   9022    FF FFF   1741.38    163.95   -100.00      -1.0      -1.0
 JOI   9023    FF FFF    -20.50    -25.60   -100.00      -1.0      -1.0
 JOI   9024    FF FFF    -20.50    -25.60   -100.00      -1.0      -1.0

 JOI   9011    FF FFF     32.79      2.42   -640.00      -1.0      -1.0
 JOI   9012    FF FFF     32.79      2.42   -640.00      -1.0      -1.0
================================================================================
 REFERENCE POINT FOR AXIAL BEAM
JOI  29021    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  29303    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29302    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29301    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  29209    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29208    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29206    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29205    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29204    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29203    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29202    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0
JOI  29201    FFFFFF   10000.0      0.00      0.00      -1.0      -1.0

JOI  29110    FFFFFF   10000.0     19.07      0.00      -1.0      -1.0
JOI  29109    FFFFFF   10000.0    -12.50      0.00      -1.0      -1.0
JOI  29108    FFFFFF   10000.0    258.01      0.00      -1.0      -1.0
JOI  29107    FFFFFF   10000.0    252.66      0.00      -1.0      -1.0
JOI  29106    FFFFFF   10000.0    214.47      0.00      -1.0      -1.0
JOI  29105    FFFFFF   10000.0    200.11      0.00      -1.0      -1.0
JOI  29104    FFFFFF   10000.0    218.38      0.00      -1.0      -1.0
JOI  29103    FFFFFF   10000.0    318.50      0.00      -1.0      -1.0
JOI  29102    FFFFFF   10000.0    319.14      0.00      -1.0      -1.0
JOI  29101    FFFFFF   10000.0    175.79      0.00      -1.0      -1.0
================================================================================
================================================================================
 WEI DATA   231403.5            231403.4 7.223E+11 1.055E+12 1.776E+12
================================================================================
```

RBFB_Fix_2.txt

	NODE	X-WEIGHT (X)	Y-WEIGHT (Y)	Z-WEIGHT (Z)	X-INERTIA (X-XAXIS)	Y-INERTIA (Y-YAXIS)	Z-INERTIA (Z-ZAXIS)
BASEMAT		50053.0		52701.0	1.157E+11	1.963E+11	3.113E+11
WEI	2	33589.0	0.0	36237.0	8.271E+10	1.291E+11	2.111E+11
WEI	1	16464.0	0.0	16464.0	3.294E+10	6.723E+10	1.002E+11
WEI	111	0.1	0.0	0.1	0.1	0.1	0.1
PEDESTAL		11422.2		12340.4	6.486E+09	6.487E+09	1.264E+10

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*** DAC3N *** < G-2 > INPT DATA ECHO

WEI	303	5627.1	0.0	7260.2	3.319E+09	3.320E+09	6.564E+09
WEI	377	0.1	0.0	0.1	0.1	0.1	0.1
WEI	302	3060.7	0.0	3060.7	1.682E+09	1.683E+09	3.227E+09
WEI	376	1.375	0.0	1.375	0.001	0.001	0.001
WEI	301	2732.9	0.0	2698.9	1.484E+09	1.485E+09	2.853E+09
RCCV		64866.0		50371.4	1.422E+11	1.389E+11	2.735E+11
WEI	209	7171.1	0.0	5000.3	1.083E+10	3.993E+09	2.278E+10
WEI	208	20110.3	0.0	21997.1	3.221E+10	3.625E+10	6.060E+10
EI	273	0.1	0.0	0.1	0.1	0.1	0.1
WEI	206	8151.7	0.0	8435.7	2.058E+10	1.982E+10	3.995E+10
WEI	205	4046.9	0.0	4046.9	1.173E+10	1.170E+10	1.723E+10
WEI	204	6830.3	0.0	4194.3	1.703E+10	1.703E+10	3.389E+10
WEI	203	7627.0	0.0	8629.9	1.899E+10	1.899E+10	3.773E+10
WEI	202	5551.7	0.0	5551.7	1.575E+10	1.591E+10	3.134E+10
WEI	201	5376.9	0.0	5376.9	1.512E+10	1.517E+10	3.001E+10
RBFB		105062.3		86277.7	4.579E+11	7.136E+11	1.179E+12
WEI	110	9141.4	0.0	9141.4	3.902E+10	4.483E+10	8.822E+10
WEI	109	9662.6	0.0	9179.0	5.578E+10	6.119E+10	1.156E+11
WEI	108	13588.7	0.0	14072.3	4.967E+10	7.227E+10	1.227E+11
WEI	107	7109.1	0.0	7109.1	3.312E+10	5.710E+10	9.590E+10
WEI	106	7033.3	0.0	7033.3	3.552E+10	5.095E+10	8.830E+10
WEI	105	6591.7	0.0	6591.7	3.136E+10	5.106E+10	8.192E+10
WEI	104	7053.4	0.0	7053.4	3.432E+10	5.343E+10	8.720E+10
WEI	103	12313.1	0.0	11816.8	5.082E+10	9.050E+10	1.404E+11
WEI	102	15873.6	0.0	14787.7	6.253E+10	1.126E+11	1.740E+11
WEI	101	16695.4	0.0	15663.5	6.578E+10	1.197E+11	1.843E+11
OSCILLATOR				31414.3			
WEI	9101	0.1	0.1	2997.2	0.1	0.1	0.1
WEI	9102	0.1	0.1	449.3	0.1	0.1	0.1
WEI	9103	0.1	0.1	597.4	0.1	0.1	0.1
WEI	9104	0.1	0.1	277.9	0.1	0.1	0.1
WEI	9105	0.1	0.1	19.0	0.1	0.1	0.1
WEI	9106	0.1	0.1	123.5	0.1	0.1	0.1
WEI	9081	0.1	0.1	3981.2	0.1	0.1	0.1
WEI	9071	0.1	0.1	2041.8	0.1	0.1	0.1
WEI	9072	0.1	0.1	273.2	0.1	0.1	0.1

```
 WEI   9073       0.1       0.1      72.1       0.1       0.1       0.1
 WEI   9074       0.1       0.1     351.0       0.1       0.1       0.1
 WEI   9075       0.1       0.1     122.0       0.1       0.1       0.1

 WEI   9061       0.1       0.1     591.2       0.1       0.1       0.1
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
 WEI   9062       0.1       0.1     149.4       0.1       0.1       0.1
 WEI   9063       0.1       0.1     989.8       0.1       0.1       0.1
 WEI   9064       0.1       0.1    3403.0       0.1       0.1       0.1

 WEI   9051       0.1       0.1    1024.0       0.1       0.1       0.1

 WEI   9041       0.1       0.1    1130.8       0.1       0.1       0.1

 WEI   9031       0.1       0.1    1124.2       0.1       0.1       0.1
 WEI   9032       0.1       0.1    8730.1       0.1       0.1       0.1
 WEI   9033       0.1       0.1       6.5       0.1       0.1       0.1

 WEI   9021       0.1       0.1     372.7       0.1       0.1       0.1
 WEI   9022       0.1       0.1     110.7       0.1       0.1       0.1
 WEI   9023       0.1       0.1    1121.3       0.1       0.1       0.1
 WEI   9024       0.1       0.1     608.2       0.1       0.1       0.1

 WEI   9011       0.1       0.1     377.7       0.1       0.1       0.1
 WEI   9012       0.1       0.1     369.3       0.1       0.1       0.1
================================================================================
================================================================================
 BML DATA SHEAR
================================================================================
      INUM INOD JNOD KNOD IRGD IMAT ISCT                    WW
 BASEMAT
BML   1021    2    119021 1021   20 1021

 PEDESTAL
BML   1303  303  37719303 1303   10 1303
BML   1377  377  30219303 1377   10 1303
BML   1302  302  37619302 1302   10 1302
BML   1376  376  30119302 1376   10 1302
BML   1301  301    219301 1301   10 1301

 RCCV
BML   1209  209  20819209 1209   10 1209
BML   1208  208  20619208 1208   10 1208
 ML   1273  273  20619208 1273   10 1208
BML   1206  206  20519206 1206   10 1206
BML   1205  205  20419205 1205   10 1205
BML   1204  204  20319204 1204   10 1204
BML   1203  203  20219203 1203   10 1203
BML   1202  202  20119202 1202   10 1202
BML   1201  201    219201 1201   10 1201

 RBFB
BML   1110  110  10919110 1110   10 1110
BML   1109  109  10819109 1109   10 1109
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RBFB_Fix_2.txt

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BML   1108  108  10719108 1108   10 1108
BML   1107  107  10619107 1107   10 1107
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
BML   1106  106  10519106 1106   10 1106
BML   1105  105  10419105 1105   10 1105
BML   1104  104  10319104 1104   10 1104
BML   1103  103  10219103 1103   10 1103
BML   1102  102  10119102 1102   10 1102
BML   1101  101    219101 1101   10 1101

=========================================================================
 BML DATA AXIAL
=========================================================================
      INUM INOD JNOD KNOD IRGD IMAT ISCT                    WW
 BASEMAT
BML   2021    2    129021 2021   20 2021

 PEDESTAL
BML   2303  303  37729303 2303   10 2303
BML   2377  377  30229303 2377   10 2303
BML   2302  302  37629302 2302   10 2302
BML   2376  376  30129302 2376   10 2302
BML   2301  301    229301 2301   10 2301

 RCCV
BML   2209  209  20829209 2209   10 2209
BML   2208  208  20629208 2208   10 2208
 ML   2273  273  20629208 2273   10 2208
BML   2206  206  20529206 2206   10 2206
BML   2205  205  20429205 2205   10 2205
BML   2204  204  20329204 2204   10 2204
BML   2203  203  20229203 2203   10 2203
BML   2202  202  20129202 2202   10 2202
BML   2201  201    229201 2201   10 2201

 RBFB
BML   2110  110  10929110 2110   10 2110
BML   2109  109  10829109 2109   10 2109
BML   2108  108  10729108 2108   10 2108
BML   2107  107  10629107 2107   10 2107
BML   2106  106  10529106 2106   10 2106
BML   2105  105  10429105 2105   10 2105
BML   2104  104  10329104 2104   10 2104
BML   2103  103  10229103 2103   10 2103
BML   2102  102  10129102 2102   10 2102
BML   2101  101    229101 2101   10 2101
=========================================================================
 BML DATA STICK TO STICK
=========================================================================
 RBFB TO RCCV
BML   9129  109  20919129        10 9999
BML   9128  108  20819128        10 9999
BML   9126  106  20619126        10 9999
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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RBFB_Fix_2.txt

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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
          BML    9125  105  20519125        10 9999
          BML    9124  104  20419124        10 9999
          BML    9123  103  20319123        10 9999
          BML    9122  102  20219122        10 9999
          BML    9121  101  20119121        10 9999
           RCCV TO PEDESTAL
          BML    9233  203  30319233        10 9999
          BML    9232  202  30219232        10 9999
          BML    9231  201  30119231        10 9999
           RCCV TO PEDESTAL DF
          BML    9301  206  70119701        10 9999
                 INUM INOD JNOD KNOD IRGD IMAT IKND

           RBFB TO RCCV
          SPL    7009  109  209            7009    3
          SPL    7008  108  208            7008    3
          SPL    7006  106  206            7006    3
          SPL    7005  105  205            7005    3
          SPL    7004  104  204            7004    3
          SPL    7003  103  203            7003    3
          SPL    7002  102  202            7002    3
          SPL    7001  101  201            7001    3
           RCCV TO PEDESTAL
          SPL    7023  203  303            7023    3
          SPL    7022  202  302            7022    3
          SPL    7021  201  301            7021    3
           RCCV TO V/W
          SPL    7020  206  701            7020    3

          SMAT   7009  6.905E+4                 -1.0      -1.0      0.07
          SMAT   7008  6.905E+4                 -1.0      -1.0      0.07
          SMAT   7006  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7005  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7004  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7003  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7002  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7001  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7023  6.906E+3                 -1.0      -1.0      0.07
          SMAT   7022  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7021  1.375E+4                 -1.0      -1.0      0.07
          SMAT   7020  9.208E+2                 -1.0      -1.0      0.07
          ================================================================================
          ================================================================================
           BSCT DATA
          ================================================================================
                ISCT        SA        SB        SC        JA        IB        IC
                             (Z)       (X)       (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
           RIGID BEAM
          BSCT  9999   2.0E+11       0.1   1.0E+11       0.1   1.0E+20       0.1

          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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RBFB_Fix_2.txt

*** DAC3N *** < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
 BSCT DATA SHEAR BEAM
      ISCT        SA        SB        SC        JA        IB        IC
                 (Z)       (X)       (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
 BASEMAT
BSCT  1021       0.1 3.430E+07 3.430E+07 1.554E+14 6.863E+13 1.401E+14

 PEDESTAL            1.469E+06 1.469E+06 1.359E+12 7.005E+11 7.005E+11
BSCT  1303       0.1 5.013E+05 5.013E+05 4.636E+11 2.390E+11 2.390E+11
BSCT  1302       0.1 4.553E+05 4.553E+05 4.210E+11 2.171E+11 2.171E+11
BSCT  1301       0.1 5.127E+05 5.127E+05 4.742E+11 2.445E+11 2.445E+11

 RCCV                8.991E+06 8.991E+06 5.693E+13 2.961E+13 2.961E+13
BSCT  1209       0.1 1.184E+06 1.184E+06 5.637E+11 1.351E+12 1.351E+12
BSCT  1208       0.1 8.835E+05 8.835E+05 6.379E+12 3.198E+12 3.198E+12
BSCT  1206       0.1 1.122E+06 1.122E+06 8.097E+12 4.060E+12 4.060E+12
BSCT  1205       0.1 1.194E+06 1.194E+06 8.619E+12 4.322E+12 4.322E+12
BSCT  1204       0.1 1.194E+06 1.194E+06 8.619E+12 4.322E+12 4.322E+12
BSCT  1203       0.1 1.152E+06 1.152E+06 8.317E+12 4.170E+12 4.170E+12
BSCT  1202       0.1 1.167E+06 1.167E+06 8.428E+12 4.226E+12 4.226E+12
BSCT  1201       0.1 1.095E+06 1.095E+06 7.903E+12 3.963E+12 3.963E+12

 RBFB                2.099E+07 2.207E+07 2.610E+14 8.281E+13 1.548E+14
BSCT  1110       0.1 9.423E+05 7.800E+05 1.723E+13 2.579E+12 5.713E+12
BSCT  1109       0.1 9.800E+05 9.800E+05 3.776E+13 3.557E+12 6.028E+12
BSCT  1108       0.1 1.596E+06 1.383E+06 1.338E+13 4.852E+12 1.140E+13
BSCT  1107       0.1 1.823E+06 1.704E+06 1.833E+13 6.206E+12 1.119E+13
BSCT  1106       0.1 1.823E+06 1.960E+06 2.056E+13 7.083E+12 1.204E+13
BSCT  1105       0.1 1.844E+06 1.960E+06 2.068E+13 7.083E+12 1.218E+13
BSCT  1104       0.1 1.797E+06 1.908E+06 1.972E+13 6.896E+12 1.186E+13
BSCT  1103       0.1 3.259E+06 3.566E+06 3.311E+13 1.415E+13 2.754E+13
BSCT  1102       0.1 3.244E+06 3.667E+06 3.319E+13 1.427E+13 2.747E+13
BSCT  1101       0.1 3.680E+06 4.164E+06 4.708E+13 1.613E+13 2.934E+13

 BSCT DATA AXIAL BEAM
      ISCT        SA        SB        SC        JA        IB        IC
                 (Z)       (X)       (Y) (Z-ZAXIS) (X-XAXIS) (Y-YAXIS)
 BASEMAT
BSCT  2021 3.430E+07       0.1       0.1       0.1       0.1       0.1

 PEDESTAL  2.939E+06
BSCT  2303 1.003E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2302 9.106E+05       0.1       0.1       0.1       0.1       0.1
BSCT  2301 1.025E+06       0.1       0.1       0.1       0.1       0.1

 RCCV      1.680E+07
BSCT  2209 1.184E+06       0.1       0.1       0.1       0.1       0.1
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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*** DAC3N *** < G-2 > INPT DATA ECHO

RBFB_Fix_2.txt

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
BSCT  2208 1.767E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2206 2.243E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2205 2.388E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2204 2.388E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2203 2.304E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2202 2.335E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2201 2.189E+06       0.1       0.1       0.1       0.1       0.1

 RBFB      4.135E+07
BSCT  2110 1.682E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2109 1.920E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2108 2.887E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2107 3.418E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2106 3.673E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2105 3.694E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2104 3.595E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2103 6.589E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2102 6.659E+06       0.1       0.1       0.1       0.1       0.1
BSCT  2101 7.231E+06       0.1       0.1       0.1       0.1       0.1
================================================================================
================================================================================
 SPL DATA
================================================================================
      INUM INOD JNOD KNOD IRGD IMAT IKND
SPL    555  108  208              555    5
================================================================================
 OSCILLATOR
 SPL   9101  110 9101             9101    3
 SPL   9102  110 9102             9102    3
 SPL   9103  110 9103             9103    3
 SPL   9104  110 9104             9104    3
 SPL   9105  110 9105             9105    3
 SPL   9106  110 9106             9106    3

 SPL   9081  208 9081             9081    3

 SPL   9071  107 9071             9071    3
 SPL   9072  107 9072             9072    3
 SPL   9073  107 9073             9073    3
 SPL   9074  107 9074             9074    3
 SPL   9075  107 9075             9075    3

 SPL   9061  106 9061             9061    3
 SPL   9062  106 9062             9062    3
 SPL   9063  106 9063             9063    3
 SPL   9163  206 9063             9163    3
 SPL   9064  206 9064             9064    3
 SPL   9164  701 9064             9164    3

 SPL   9051  105 9051             9051    3
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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 SPL   9151  205 9051            9151    3

 SPL   9041  104 9041            9041    3
 SPL   9141  204 9041            9141    3

 SPL   9031  103 9031            9031    3
 SPL   9032  103 9032            9032    3
 SPL   9132  203 9032            9132    3
 SPL   9033  203 9033            9033    3
 SPL   9133  303 9033            9133    3

 SPL   9021  102 9021            9021    3
 SPL   9022  102 9022            9022    3
 SPL   9023  102 9023            9023    3
 SPL   9123  202 9023            9123    3
 SPL   9024  202 9024            9024    3
 SPL   9124  302 9024            9124    3

 SPL   9011  201 9011            9011    3
 SPL   9111  301 9011            9111    3
 SPL   9012  201 9012            9012    3
 SPL   9112  301 9012            9112    3
=============================================================================
=============================================================================
 MAT DATA
=============================================================================
      IMAT         GG         EE RAY-DAMP1 RAY-DAMP2 ENRG-DAMP
BMAT    10  1.21E+02  2.83E+02       -1.0       -1.0       0.07
BMAT    20  1.08E+02  2.54E+02       -1.0       -1.0       0.07

      IMAT       RSTF                HDM1       HDM2       HENR
SMAT   555  4.57E+10                -1.0       -1.0       0.07
=============================================================================
 OSCILLATOR                         -1.0       -1.0       0.07
SMAT  9101    1.0E20                -1.0       -1.0       0.07
SMAT  9102    1.0E20                -1.0       -1.0       0.07
SMAT  9103    1.0E20                -1.0       -1.0       0.07
SMAT  9104    1.0E20                -1.0       -1.0       0.07
SMAT  9105    1.0E20                -1.0       -1.0       0.07
SMAT  9106    1.0E20                -1.0       -1.0       0.07

SMAT  9081    1.0E20                -1.0       -1.0       0.07

SMAT  9071    1.0E20                -1.0       -1.0       0.07
SMAT  9072    1.0E20                -1.0       -1.0       0.07
SMAT  9073    1.0E20                -1.0       -1.0       0.07
SMAT  9074    1.0E20                -1.0       -1.0       0.07
SMAT  9075    1.0E20                -1.0       -1.0       0.07

SMAT  9061    1.0E20                -1.0       -1.0       0.07
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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1=============================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
SMAT  9062    1.0E20                -1.0       -1.0       0.07
SMAT  9063    1.0E20                -1.0       -1.0       0.07
SMAT  9163    1.0E20                -1.0       -1.0       0.07
```

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SMAT  9064    1.0E20                -1.0      -1.0      0.07
SMAT  9164    1.0E20                -1.0      -1.0      0.07

SMAT  9051    1.0E20                -1.0      -1.0      0.07
SMAT  9151    1.0E20                -1.0      -1.0      0.07

SMAT  9041    1.0E20                -1.0      -1.0      0.07
SMAT  9141    1.0E20                -1.0      -1.0      0.07

SMAT  9031    1.0E20                -1.0      -1.0      0.07
SMAT  9032    1.0E20                -1.0      -1.0      0.07
SMAT  9132    1.0E20                -1.0      -1.0      0.07
SMAT  9033    1.0E20                -1.0      -1.0      0.07
SMAT  9133    1.0E20                -1.0      -1.0      0.07

SMAT  9021    1.0E20                -1.0      -1.0      0.07
SMAT  9022    1.0E20                -1.0      -1.0      0.07
SMAT  9023    1.0E20                -1.0      -1.0      0.07
SMAT  9123    1.0E20                -1.0      -1.0      0.07
SMAT  9024    1.0E20                -1.0      -1.0      0.07
SMAT  9124    1.0E20                -1.0      -1.0      0.07

SMAT  9011    1.0E20                -1.0      -1.0      0.07
SMAT  9111    1.0E20                -1.0      -1.0      0.07
SMAT  9012    1.0E20                -1.0      -1.0      0.07
SMAT  9112    1.0E20                -1.0      -1.0      0.07
=============================================================================
=============================================================================
 RIGD DATA SHEAR
=============================================================================
      IRGD         XI         YI         ZI         XJ         YJ         ZJ
 BASEMAT
RIGD  1021    -199.43    -143.38       0.00       0.00       0.00       0.00

 PEDESTAL
RIGD  1303       0.00      -0.08       0.00       0.00      -0.04       0.00
RIGD  1377       0.00      -0.04       0.00       0.00      -0.04       0.00
RIGD  1302       0.00      -0.04       0.00       1.73      -0.04       0.00
RIGD  1376       1.73      -0.04       0.00       1.73      -0.04       0.00
RIGD  1301       1.73      -0.04       0.00   -1249.43    -143.38       0.00

 RCCV
RIGD  1209      16.40       2.09       0.00    -167.01      -1.98       0.00
RIGD  1208    -167.01      -1.98       0.00    -141.35      -1.65       0.00
 IGD  1273    -141.35      -1.65       0.00    -141.35      -1.65       0.00
RIGD  1206    -141.35      -1.65       0.00       5.66       2.05       0.00
RIGD  1205       5.66       2.05       0.00       0.00       0.00       0.00
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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1=============================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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==============================================

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
RIGD  1204       0.00       0.00       0.00       0.00       0.00       0.00
RIGD  1203       0.00       0.00       0.00      20.50      25.60       0.00
RIGD  1202      20.50      25.60       0.00     -32.79      -2.42       0.00
RIGD  1201     -32.79      -2.42       0.00   -1249.43    -143.38       0.00

 RBFB
```

RBFB_Fix_2.txt

RIGD	1110	0.00	94.00	0.00	25.33	74.93	0.00
RIGD	1109	25.33	-44.08	0.00	-350.80	123.80	0.00
RIGD	1108	525.12	146.82	0.00	-1043.59	-6.78	0.00
RIGD	1107	-273.36	75.65	0.00	1019.28	88.20	0.00
RIGD	1106	498.12	88.20	0.00	422.91	53.27	0.00
RIGD	1105	422.91	25.46	0.00	428.12	63.09	0.00
RIGD	1104	522.33	126.70	0.00	-456.91	175.18	0.00
RIGD	1103	262.94	172.11	0.00	197.69	-50.76	0.00
RIGD	1102	201.11	-39.60	0.00	129.22	-17.79	0.00
RIGD	1101	8.86	-127.28	0.00	572.71	-128.53	0.00

RIGD DATA AXIAL

	IRGD	XI	YI	ZI	XJ	YJ	ZJ
BASEMAT							
RIGD	2021	-199.43	-143.38	0.00	0.00	0.00	0.00
PEDESTAL							
RIGD	2303	0.00	-0.08	0.00	0.00	-0.04	0.00
RIGD	2377	0.00	-0.04	0.00	0.00	-0.04	0.00
RIGD	2302	0.00	-0.04	0.00	1.73	-0.04	0.00
RIGD	2376	1.73	-0.04	0.00	1.73	-0.04	0.00
RIGD	2301	1.73	-0.04	0.00	-1249.43	-143.38	0.00
RCCV							
RIGD	2209	16.40	2.09	0.00	-167.01	-1.98	0.00
RIGD	2208	-167.01	-1.98	0.00	-141.35	-1.65	0.00
IGD	2273	-141.35	-1.65	0.00	-141.35	-1.65	0.00
RIGD	2206	-141.35	-1.65	0.00	5.66	2.05	0.00
RIGD	2205	5.66	2.05	0.00	0.00	0.00	0.00
RIGD	2204	0.00	0.00	0.00	0.00	0.00	0.00
RIGD	2203	0.00	0.00	0.00	20.50	25.60	0.00
RIGD	2202	20.50	25.60	0.00	-32.79	-2.42	0.00
RIGD	2201	-32.79	-2.42	0.00	-1249.43	-143.38	0.00
RBFB							
RIGD	2110	574.47	19.07	0.00	599.80	-0.01	0.00
RIGD	2109	550.33	-31.58	0.00	174.20	136.30	0.00
RIGD	2108	968.59	406.80	0.00	-600.13	253.20	0.00
RIGD	2107	-256.37	247.86	0.00	1036.27	260.41	0.00
RIGD	2106	345.41	222.21	0.00	270.19	187.28	0.00
RIGD	2105	270.62	172.92	0.00	275.84	210.55	0.00
RIGD	2104	300.49	228.83	0.00	-678.76	277.30	0.00

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

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*** DAC3N *** < G-2 > INPT DATA ECHO

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

RIGD	2103	-39.28	377.42	0.00	-104.53	154.55	0.00
RIGD	2102	-79.24	155.20	0.00	-151.14	177.01	0.00
RIGD	2101	-204.36	33.65	0.00	359.48	32.41	0.00

RSW JOI DATA

	INUM	XYZXYZ	X-COORD	Y-COORD	Z-COORD	RAY-DAMP1	RAY-DAMP2
JOI	7777	FFFFFF	1000.0	0.08	0.00	-1.0	-1.0

```
JOI     701                0.00       0.08    1750.00       -1.0       -1.0
JOI     702                0.00       0.08    1450.00       -1.0       -1.0
JOI     703                0.00       0.08    1150.00       -1.0       -1.0
JOI     704                0.00       0.08     850.00       -1.0       -1.0
JOI     705                0.00       0.08     746.25       -1.0       -1.0
JOI     706                0.00       0.08     465.00       -1.0       -1.0
JOI     707                0.00       0.08    2418.00       -1.0       -1.0
JOI     708                0.00       0.08    2020.00       -1.0       -1.0
JOI     709                0.00       0.08    1577.50       -1.0       -1.0
JOI     710                0.00       0.08    1135.00       -1.0       -1.0
JOI     711                0.00       0.08     746.25       -1.0       -1.0
JOI     712                0.00       0.08     465.00       -1.0       -1.0
JOI     713                0.00       0.08     241.65       -1.0       -1.0
JOI     714                0.00       0.08     196.00       -1.0       -1.0
JOI     715                0.00       0.08     -80.00       -1.0       -1.0

JOI    7106     FFFFFF   1000.00       1.65       0.00       -1.0       -1.0
================================================================================
================================================================================
 RSW WEI DATA              6957.0
================================================================================
       NODE  X-WEIGHT  Y-WEIGHT  Z-WEIGHT X-INERTIA Y-INERTIA Z-INERTIA
                 (X)       (Y)       (Z)  (X-XAXIS) (Y-YAXIS) (Z-ZAXIS)
WEI     701    2015.0       0.0     841.0 5.670E+08 5.670E+08 1.130E+09
WEI     702     727.0       0.0     727.0 2.090E+08 2.090E+08 4.060E+08
WEI     703     710.0       0.0     707.0 2.030E+08 2.030E+08 3.960E+08
WEI     704     503.0       0.0     475.0 1.420E+08 1.420E+08 2.810E+08
WEI     705     480.0       0.0     454.0 1.360E+08 1.360E+08 2.680E+08
WEI     706     351.0       0.0     408.0 9.860E+07 9.860E+07 1.960E+08
WEI     707     120.0       0.0     120.0 1.380E+07 1.380E+07 2.680E+07
WEI     708     317.7       0.0     296.7 4.910E+07 4.910E+07 6.930E+07
WEI     709     223.0       0.0     223.0 3.950E+07 3.950E+07 4.980E+07
WEI     710     317.0       0.0     317.0 1.130E+07 1.130E+07 7.840E+06

 WEI     711     455.0       0.0     455.0 1.010E+07 1.010E+07 1.160E+07
 711 X,Y,Z=455.0+2185.28=2640.28
WEI     711   2640.28       0.0   2640.28 1.010E+07 1.010E+07 1.160E+07

WEI     712     483.0       0.0     483.0 5.770E+07 5.770E+07 1.100E+08
WEI     713     186.0       0.0     186.0 2.130E+07 2.130E+07 4.200E+07
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
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1================================================================================
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  *** DAC3N ***       < G-2 > INPT DATA ECHO

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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
WEI     714      77.0       0.0      77.0 6.850E+06 6.850E+06 1.360E+07
WEI     715     108.0       0.0     108.0 9.870E+06 9.870E+06 1.890E+07
================================================================================
================================================================================
 RSW BML DATA
================================================================================
       INUM INOD JNOD KNOD IRGD IMAT ISCT                    WW
BML     701  701  702 7777         71  701                  0.0
BML     702  702  703 7777         71  702                  0.0
BML     703  703  704 7777         71  703                  0.0
BML     704  704  705 7777         71  704                  0.0
BML     705  705  706 7777         71  705                  0.0
```

RBFB_Fix_2.txt

```
BML    707  707  708 7777        71  707                0.0
BML    708  708  709 7777        71  708                0.0
BML    709  709  710 7777        71  709                0.0
BML    710  710  711 7777        71  710                0.0
BML    711  711  712 7777        71  711                0.0
BML    712  712  713 7777        71  712                0.0
BML    713  713  714 7777        71  713                0.0
BML    714  714  715 7777        71  714                0.0
```

RSW BSCT DATA

	ISCT	SA (Z)	SB (X)	SC (Y)	JA (Z-ZAXIS)	IB (X-XAXIS)	IC (Y-YAXIS)
RIGID BEAM							
BSCT	7777	2.0E+11	0.1	1.0E+11	0.1	1.0E+20	0.1
BSCT	701	3.000E+04	1.500E+04	1.500E+04	1.680E+10	8.380E+09	8.380E+09
BSCT	702	3.000E+04	1.500E+04	1.500E+04	1.680E+10	8.380E+09	8.380E+09
BSCT	703	3.000E+04	1.500E+04	1.500E+04	1.680E+10	8.380E+09	8.380E+09
BSCT	704	3.000E+04	1.500E+04	1.500E+04	1.680E+10	8.380E+09	8.380E+09
BSCT	705	3.000E+04	1.500E+04	1.500E+04	1.680E+10	8.380E+09	8.380E+09
BSCT	707	4.760E+04	2.380E+04	2.380E+04	1.060E+10	5.310E+09	5.310E+09
BSCT	708	4.760E+04	2.380E+04	2.380E+04	1.060E+10	5.310E+09	5.310E+09
BSCT	709	4.760E+04	2.380E+04	2.380E+04	1.060E+10	5.310E+09	5.310E+09
BSCT	710	5.800E+04	2.900E+04	2.900E+04	1.300E+10	7.170E+09	7.170E+09
BSCT	711	7.800E+04	3.900E+04	3.900E+04	1.780E+10	8.910E+09	8.910E+09
BSCT	712	6.740E+04	3.370E+04	3.370E+04	1.530E+10	7.260E+09	7.260E+09
BSCT	713	6.260E+04	3.130E+04	3.130E+04	1.420E+10	7.080E+09	7.080E+09
BSCT	714	4.200E+04	2.100E+04	2.100E+04	7.340E+09	3.670E+09	3.670E+09

RSW SPL DATA

INUM	INOD	JNOD	KNOD	IRGD	IMAT	IKND

RSW LNK DATA

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
```

CONTINUE TO NEXT PAGE

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1
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*** DAC3N *** < G-2 > INPT DATA ECHO

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
LNKXX  706  303
LNKYY  706  303
LNKZZ  706  303
LNKRX  706  303
LNKRY  706  303
LNKRZ  706  303

LNKXX  705  711
LNKYY  705  711
LNKZZ  705  711
LNKRX  705  711
LNKRY  705  711
LNKRZ  705  711
```

RBFB_Fix_2.txt

```
          LNKXX  706  712
          LNKYY  706  712
          LNKZZ  706  712
          LNKRX  706  712
          LNKRY  706  712
          LNKRZ  706  712

          LNKXX  713  377
          LNKYY  713  377
          LNKZZ  713  377
          LNKRX  713  377
          LNKRY  713  377
          LNKRZ  713  377
          ================================================================================
          ================================================================================
           RSW MAT DATA
          ================================================================================
                IMAT         GG          EE RAY-DAMP1 RAY-DAMP2 ENRG-DAMP
          BMAT    71 7.8440E+2 2.0394E+3      -1.0       -1.0       0.04
          ================================================================================
          ================================================================================
           SOIL DATA
          ================================================================================
                INUM INOD JNOD KNOD IRGD IMAT IKND
          SPL   1001    1  111            1001    1
          SPL   1002    1  111            1002    2
          SPL   1003    1  111            1003    3
          SPL   1004    1  111            1004    4
          SPL   1005    1  111            1005    5
          SPL   1006    1  111            1006    6

                IMAT      RSTF                HDM1       HDM2       HENR
          SMAT  1001 1.000E+20                -1.0       -1.0       0.00
          SMAT  1002 1.000E+20                -1.0       -1.0       0.00
          SMAT  1003 1.000E+20                -1.0       -1.0       0.00
          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
CONTINUE TO NEXT PAGE
1================================================================================
================================================
  *** DAC3N ***       < G-2 > INPT DATA ECHO

================================================================================
================================================

          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
          SMAT  1004 1.000E+25                -1.0       -1.0       0.00
          SMAT  1005 1.000E+25                -1.0       -1.0       0.00
          SMAT  1006 1.000E+25                -1.0       -1.0       0.00

                INUM INOD JNOD KNOD IRGD       IKND                RDSP
          DSL   1001    1  111                   1           0.000E+00
          DSL   1002    1  111                   2           0.000E+00
          DSL   1003    1  111                   3           0.000E+00
          DSL   1004    1  111                   4           0.000E+00
          DSL   1005    1  111                   5           0.000E+00
          ================================================================================
          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
END OF INPUT DATA .
1================================================================================
================================================
  *** DAC3N ***     < M-M > INFORMATION OF M-MATRIX DIAGNOAL

================================================================================
```

RBFB_Fix_2.txt

(2)	3.427E+01	3.427E+01	3.698E+01	8.440E+07	1.317E+08	2.154E+08
(1)	1.680E+01	1.680E+01	1.680E+01	3.361E+07	6.860E+07	1.022E+08
(111)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(9999)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(303)	6.593E+00	6.593E+00	8.318E+00	3.546E+06	3.547E+06	7.010E+06
(377)	1.899E-01	1.899E-01	1.899E-01	2.173E+04	2.173E+04	4.286E+04
(302)	3.123E+00	3.123E+00	3.123E+00	1.716E+06	1.717E+06	3.293E+06
(376)	1.403E-03	1.403E-03	1.403E-03	1.020E-06	1.020E-06	1.020E-06
(301)	2.789E+00	2.789E+00	2.754E+00	1.514E+06	1.515E+06	2.911E+06
(209)	7.317E+00	7.317E+00	5.102E+00	1.105E+07	4.074E+06	2.324E+07
(208)	2.052E+01	2.052E+01	2.245E+01	3.287E+07	3.699E+07	6.184E+07
(206)	8.318E+00	8.318E+00	8.608E+00	2.100E+07	2.022E+07	4.077E+07
(205)	4.129E+00	4.129E+00	4.129E+00	1.197E+07	1.194E+07	1.758E+07
(204)	6.970E+00	6.970E+00	4.280E+00	1.738E+07	1.738E+07	3.458E+07
(203)	7.783E+00	7.783E+00	8.806E+00	1.938E+07	1.938E+07	3.850E+07
(202)	5.665E+00	5.665E+00	5.665E+00	1.607E+07	1.623E+07	3.198E+07
(201)	5.487E+00	5.487E+00	5.487E+00	1.543E+07	1.548E+07	3.062E+07
(110)	9.328E+00	9.328E+00	9.328E+00	3.982E+07	4.574E+07	9.002E+07
(109)	9.860E+00	9.860E+00	9.366E+00	5.692E+07	6.244E+07	1.180E+08
(108)	1.387E+01	1.387E+01	1.436E+01	5.068E+07	7.374E+07	1.252E+08
(107)	7.254E+00	7.254E+00	7.254E+00	3.380E+07	5.827E+07	9.786E+07
(106)	7.177E+00	7.177E+00	7.177E+00	3.624E+07	5.199E+07	9.010E+07
(105)	6.726E+00	6.726E+00	6.726E+00	3.200E+07	5.210E+07	8.359E+07
(104)	7.197E+00	7.197E+00	7.197E+00	3.502E+07	5.452E+07	8.898E+07
(103)	1.256E+01	1.256E+01	1.206E+01	5.186E+07	9.235E+07	1.433E+08
(102)	1.620E+01	1.620E+01	1.509E+01	6.381E+07	1.149E+08	1.776E+08
(101)	1.704E+01	1.704E+01	1.598E+01	6.712E+07	1.221E+08	1.881E+08
(19021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19129)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19128)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19126)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19125)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19124)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19123)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19122)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19121)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19233)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19232)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19231)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19701)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED

RBFB_Fix_2.txt

(29021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(7777)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(701)	2.056E+00	2.056E+00	8.582E-01	5.786E+05	5.786E+05	1.153E+06
(702)	7.418E-01	7.418E-01	7.418E-01	2.133E+05	2.133E+05	4.143E+05
(703)	7.245E-01	7.245E-01	7.214E-01	2.071E+05	2.071E+05	4.041E+05
(704)	5.133E-01	5.133E-01	4.847E-01	1.449E+05	1.449E+05	2.867E+05
(705)	3.184E+00	3.184E+00	3.157E+00	1.491E+05	1.491E+05	2.853E+05
(706)	6.593E+00	6.593E+00	8.318E+00	3.546E+06	3.547E+06	7.010E+06
(707)	1.224E-01	1.224E-01	1.224E-01	1.408E+04	1.408E+04	2.735E+04
(708)	3.242E-01	3.242E-01	3.028E-01	5.010E+04	5.010E+04	7.071E+04
(709)	2.276E-01	2.276E-01	2.276E-01	4.031E+04	4.031E+04	5.082E+04
(710)	3.235E-01	3.235E-01	3.235E-01	1.153E+04	1.153E+04	8.000E+03
(711)	3.184E+00	3.184E+00	3.157E+00	1.491E+05	1.491E+05	2.853E+05
(712)	6.593E+00	6.593E+00	8.318E+00	3.546E+06	3.547E+06	7.010E+06
(713)	1.899E-01	1.899E-01	1.899E-01	2.173E+04	2.173E+04	4.286E+04
(714)	7.857E-02	7.857E-02	7.857E-02	6.990E+03	6.990E+03	1.388E+04
(715)	1.102E-01	1.102E-01	1.102E-01	1.007E+04	1.007E+04	1.929E+04
(7106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED

TOTAL MASS

X	Y	Z	RX	RY	RZ
2.621E+02	2.621E+02	2.643E+02	7.459E+08	1.086E+09	1.830E+09

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*** DAC3N *** < M-K > INFORMATION OF K-MATRIX DIAGNOAL

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(2)	1.050E+07	1.060E+07	2.758E+07	5.581E+13	1.122E+14	5.661E+13
(1)	1.000E+20	1.000E+20	1.000E+20	1.000E+25	1.000E+25	1.000E+25
(111)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(9999)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(303)	1.513E+14	7.075E+14	2.676E+06	5.023E+11	5.023E+11	3.538E+23
(377)	1.102E+06	1.102E+06	5.514E+06	8.936E+11	8.936E+11	7.131E+11
(302)	8.972E+11	1.196E+12	2.315E+06	5.560E+11	5.560E+11	8.621E+20
(376)	4.631E+05	4.631E+05	2.177E+06	5.263E+11	5.263E+11	4.303E+11
(301)	1.630E+12	3.558E+11	1.289E+06	3.169E+11	3.169E+11	8.179E+20
(209)	8.192E+11	2.171E+12	5.477E+05	5.709E+11	5.710E+11	1.232E+21
(208)	1.628E+11	1.262E+11	1.074E+06	1.549E+12	1.622E+12	1.190E+20

RBFB_Fix_2.txt

(206)	5.169E+11	1.106E+11	2.214E+06	3.965E+12	1.387E+14	2.585E+20
(205)	7.980E+10	1.719E+10	3.127E+06	5.665E+12	5.665E+12	3.995E+19
(204)	8.120E+10	1.738E+10	3.045E+06	5.518E+12	5.518E+12	4.061E+19
(203)	1.513E+14	7.075E+14	2.707E+06	4.898E+12	4.898E+12	3.538E+23
(202)	9.289E+11	1.203E+12	2.405E+06	4.344E+12	4.343E+12	8.781E+20
(201)	1.661E+12	3.627E+11	2.466E+06	4.450E+12	4.452E+12	8.337E+20
(110)	6.076E+04	4.949E+04	2.587E+05	4.386E+11	1.015E+12	1.134E+12
(109)	8.192E+11	2.171E+12	1.104E+06	1.898E+12	3.716E+12	1.232E+21
(108)	1.628E+11	1.262E+11	2.661E+06	4.844E+12	1.142E+13	1.190E+20
(107)	8.692E+05	7.825E+05	3.750E+06	6.844E+12	1.433E+13	8.471E+12
(106)	1.165E+11	2.495E+10	4.651E+06	8.974E+12	1.522E+14	5.828E+19
(105)	7.980E+10	1.719E+10	4.977E+06	9.757E+12	1.672E+13	3.995E+19
(104)	8.120E+10	1.738E+10	4.639E+06	9.146E+12	1.569E+13	4.061E+19
(103)	3.372E+10	7.248E+09	5.621E+06	1.225E+13	2.255E+13	1.688E+19
(102)	3.165E+10	7.116E+09	6.804E+06	1.485E+13	2.836E+13	1.598E+19
(101)	3.154E+10	6.929E+09	7.516E+06	1.667E+13	3.103E+13	1.585E+19
(19021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19129)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19128)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19126)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19125)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19124)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19123)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19122)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19121)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19233)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19232)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19231)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(19701)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29021)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29303)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29302)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29301)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29209)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29208)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29206)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29205)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29204)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29203)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29202)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29201)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29110)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED

(29109)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29108)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29107)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29105)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29104)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29103)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29102)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(29101)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(7777)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED
(701)	4.004E+11	8.564E+10	2.049E+05	5.785E+10	5.785E+10	2.002E+20
(702)	7.804E+04	7.804E+04	4.079E+05	1.157E+11	1.157E+11	8.785E+10
(703)	7.804E+04	7.804E+04	4.079E+05	1.157E+11	1.157E+11	8.785E+10
(704)	1.524E+05	1.524E+05	7.936E+05	2.229E+11	2.229E+11	1.709E+11
(705)	3.199E+05	3.199E+05	1.677E+06	3.331E+11	3.331E+11	2.497E+11
(706)	1.513E+14	7.075E+14	2.676E+06	5.023E+11	5.023E+11	3.538E+23
(707)	4.586E+04	4.586E+04	2.439E+05	2.903E+10	2.903E+10	2.089E+10
(708)	8.690E+04	8.690E+04	4.633E+05	5.551E+10	5.551E+10	3.968E+10
(709)	8.207E+04	8.207E+04	4.388E+05	5.296E+10	5.296E+10	3.758E+10
(710)	9.843E+04	9.843E+04	5.237E+05	6.626E+10	6.626E+10	4.502E+10
(711)	3.199E+05	3.199E+05	1.677E+06	3.331E+11	3.331E+11	2.497E+11
(712)	1.513E+14	7.075E+14	2.676E+06	5.023E+11	5.023E+11	3.538E+23
(713)	1.102E+06	1.102E+06	5.514E+06	8.936E+11	8.936E+11	7.131E+11
(714)	5.965E+05	5.965E+05	3.107E+06	3.448E+11	3.448E+11	2.649E+11
(715)	5.886E+04	5.886E+04	3.103E+05	2.824E+10	2.824E+10	2.086E+10
(7106)	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED

1==========

*** DAC3N *** < M-1 > INFORMATION OF SUBSPACE METHOD

==========

*** CONTROL PARAMETER ***

```
                    MFRE =  216     : NUMBER OF EQUATIONS
                    MEIU =   80     : NUMBER OF EIGEN VALUE TO BE CALCULATED : USER
INPUT
                    MEIG =   80     : NUMBER OF EIGEN VALUE TO BE CALCULATED : USE
IN PROGRAM
                    MALL =  216     : NUMBER OF POGITIVE IN DIAGONAL TERM OF
M-MATRIX
                    MTRV =   80     : NUMBER OF TRIAL VECTORS
                    MBND =   38     : BAND WIDTH OF MATRIX
                    MSHT =  245     : MAX NUMBER OF SHIFT LOOP
                    MITE =    2     : PARAMETER OF ITERATION LOOP
                    MIT3 =    6     : MAX NUMBER OF ITERATION LOOP
                    EMIN =  .000E+00: LIMIT OF MINIMUM FREQUENCY (HZ)
                    EMAX = 8.000E+02: LIMIT OF MAXIMUM FREQUENCY (HZ)
                    TOLE = 1.000E-06: MAX TOLERANCE OF EROR RATIO
```

*** NORMAL END OF EIGENVALUE ANALYSIS

```
                    NUMBER OF EIGENVALUES  =    92
                    NUMBER OF SHIFTS       =     8
                    NUMBER OF ITERATIONS   =    16
```

RBFB_Fix_2.txt

```
1================================================================================
================================================
  *** DAC3N ***     < M-4 > FREQUENCY,PERIOD,PARTCIPAT. FACT

================================================================================
================================================

  MODE <--FREQUENCY-> <-- PERIOD -->      <-----------------------------
PARTICIPATION  FACTOR  ----------------------------------->
           (HZ)             (SEC)              ( X DIR.  )    ( Y DIR.  )    ( Z DIR.
)    ( X ROT.  )    ( Y ROT.  )    ( Z ROT.  )


     1  3.9494181E+00  2.5320186E-01      -7.1208182E-02  1.6672991E+00
4.6539039E-02 -1.1305007E+03 -4.8373080E+01 -1.0175491E+03
     2  4.4053971E+00  2.2699429E-01       1.6625656E+00  6.7990953E-02
9.6948392E-02 -4.7394436E+01  1.0498330E+03  7.2824292E+01
     3  6.0911628E+00  1.6417227E-01      -1.1453363E-02  4.5507103E-02
1.3346459E-02 -2.2266847E+02 -2.1591060E+01  1.6107095E+03
     4  8.0646961E+00  1.2399723E-01      -4.6210517E-02 -9.0520939E-01
1.8445877E-01 -1.3038423E+03  1.2680691E+02 -8.4606757E+02
     5  8.7280908E+00  1.1457259E-01      -6.9036439E-01  6.8031980E-02
5.4993379E-01  9.7080302E+01  1.6745666E+03  8.8001260E+01
     6  1.1053397E+01  9.0469928E-02       4.5859675E-01  6.8368689E-02
1.5810288E+00 -1.1883876E+02 -2.4662761E+02 -1.2184485E+02
     7  1.1893386E+01  8.4080344E-02      -1.0233889E-01  1.4161158E+00
-2.4440435E-01  7.0337070E+02 -1.1262618E+02 -1.5367519E+03
     8  1.3076629E+01  7.6472309E-02       1.5529904E+00  2.3867191E-01
-1.8567589E+00  2.3285360E+03  6.9023104E+02  3.7101703E+02
     9  1.3576164E+01  7.3658510E-02      -1.2642666E-01  2.0110022E-01
3.5219853E-01  3.1447507E+03  4.2098073E+02  4.3923951E+02
    10  1.4039567E+01  7.1227266E-02      -9.0917401E-02 -3.3769473E-01
2.7848826E-01 -2.4326111E+03  1.4452273E+03 -1.0422347E+03
    11  1.4180180E+01  7.0520968E-02      -1.1996364E+00  2.2370313E-02
-9.4202796E-01 -7.1264897E+02  1.2059703E+04  3.8402166E+02
    12  1.4577912E+01  6.8596928E-02      -5.7497837E-01 -5.1427625E-02
2.1837944E+00  1.1121487E+03 -8.1162468E+03 -4.9153962E+02
    13  1.5027759E+01  6.6543521E-02      -4.6249155E-02 -5.2092376E-02
6.3364126E-02  5.4353711E+02 -6.0692701E+02  6.3192684E+03
    14  1.6010552E+01  6.2458810E-02       3.7469379E-02 -6.9158805E-01
-8.2775563E-01  5.3594526E+02 -3.3987318E+02 -7.3978505E+02
    15  1.6066980E+01  6.2239452E-02       8.9866415E-02 -1.1021491E+00
7.2207347E-01  6.1545217E+02  5.5890628E+02 -1.1445331E+03
    16  1.6496216E+01  6.0619965E-02      -1.3464709E+00 -1.5566506E-01
-3.2699159E-01 -5.7589878E+01 -3.2437348E+02 -2.0510863E+02
    17  1.7219900E+01  5.8072345E-02      -1.7321419E-01  6.3251799E-02
2.1071457E-01  2.8324631E+01 -9.5525739E+02  1.2518453E+01
    18  1.8442624E+01  5.4222218E-02      -1.1139803E-02 -1.0887013E-01
4.1745692E-02  6.8565331E+02 -1.4251497E+02  1.1754454E+02
    19  2.0459810E+01  4.8876308E-02       3.6283865E-03 -5.1848679E-02
-4.2851006E-03  4.9843219E+01 -7.2819576E+01 -3.4256422E+02
    20  2.0938342E+01  4.7759272E-02      -2.7982662E-02  1.9048225E-02
-5.3225023E-02 -3.7039016E+01 -4.7761428E+02  9.2670747E+01
    21  2.2217608E+01  4.5009346E-02       1.9131761E-02  6.1436994E-01
-5.3909299E-02  2.3983664E+03 -1.9992661E+01 -2.1017030E+02
    22  2.2347778E+01  4.4747177E-02       4.2655555E-01  9.3379904E-03
-9.3014370E-02 -5.5852306E+01 -2.5849265E+03  1.3093142E+02
    23  2.4108813E+01  4.1478608E-02      -4.3834395E-02 -5.7394355E-01
1.3190867E-01 -1.3604810E+03  7.8043768E+01  1.8662928E+02
    24  2.4805186E+01  4.0314151E-02      -3.7605110E-01  2.5301775E-02
6.3441791E-02  4.5334730E+01  6.7604877E+02 -5.9758110E+01
    25  2.5758468E+01  3.8822185E-02       6.9399488E-01  4.3260087E-02
1.0305050E-01 -9.7362390E+01  1.1902697E+01 -9.1673151E+01
```

RBFB_Fix_2.txt

```
    26  2.5763997E+01  3.8813853E-02       -4.2932044E-02  7.3949542E-01
-4.7212453E-02  4.7263695E+02  2.8112645E+01 -1.0305002E+03
    27  2.6269049E+01  3.8067613E-02       -1.1931960E-02 -3.1304440E-02
-1.2599632E-01  3.6655367E+02 -5.5162093E+00  2.1406783E+02
    28  2.7600940E+01  3.6230651E-02       -3.0013076E-02 -2.3876435E-02
-6.5753919E-01 -6.1623103E+02  5.5688510E+01 -2.8449193E+02
    29  2.8345851E+01  3.5278531E-02       -2.7291977E-03 -2.7890010E-02
-1.5082819E-02  1.4770197E+02  3.9261101E+01  4.7406211E+02
    30  2.8935136E+01  3.4560058E-02        1.1759187E-02 -4.1332153E-02
-1.6498696E-02  1.1329256E+02 -4.0085170E+02 -1.0748173E+02
    31  2.9018040E+01  3.4461321E-02       -1.1950655E-02 -6.7264914E-02
2.3348314E-02  2.3593487E+02  3.7874933E+02 -2.1491071E+02
    32  3.0100567E+01  3.3221966E-02       -1.0558094E-01 -5.1533261E-04
2.3633086E-02 -2.0833237E+01 -6.7358201E+02  1.2867171E+01
    33  3.1758690E+01  3.1487445E-02        3.0132447E-02 -2.1123912E-01
6.6831885E-02 -1.3542211E+02 -5.0045172E+01  2.5271823E+02
    34  3.1810027E+01  3.1436628E-02       -2.5954680E-01 -5.2667917E-02
-2.3559543E-01 -7.5331262E+00  1.7944602E+02  9.9802137E+01
    35  3.1921212E+01  3.1327131E-02       -9.6124359E-03  1.3917591E-01
-7.7936837E-02  6.0536147E+02  6.3919326E+01  3.3241258E+02
    36  3.2013314E+01  3.1237004E-02        1.9095697E-01  2.7006532E-02
3.2984158E-01  6.5369941E+01 -3.8959367E+02 -3.2867547E+01
    37  3.2599733E+01  3.0675098E-02       -5.1174147E-02  6.1346398E-03
3.8611521E-01  5.7388571E+00 -1.3811012E+02  3.6758913E+00
    38  3.5060952E+01  2.8521758E-02       -1.1226219E-03 -4.5468605E-04
-3.8961959E-01  2.7373932E+00 -4.9857611E+01 -2.1692942E+00
    39  3.5290264E+01  2.8336427E-02        3.4345863E-05  6.3262506E-05
7.1263677E-05 -4.8291114E-01 -7.7654799E-02 -3.4668866E+00
    40  3.5678576E+01  2.8028024E-02       -9.3445467E-03  5.8825562E-02
-6.7061486E-02  3.5608484E+02  7.1574511E+01  1.7990168E+01
    41  3.7298677E+01  2.6810603E-02        5.2093865E-01  3.4063938E-01
3.9024610E-01  1.5404454E+02 -5.5958433E+02 -6.2840236E+02
    42  3.7474566E+01  2.6684766E-02       -4.0396651E-01  5.0812827E-01
-7.1413737E-02 -6.0245694E+02  4.0809394E+01 -1.6990412E+03
    43  3.8071242E+01  2.6266545E-02        2.0624650E-01 -1.3644519E-02
-5.8223296E-01 -5.4235089E+02  1.2461323E+03 -2.6853682E+02
    44  3.9914469E+01  2.5053571E-02       -5.2058487E-03  1.6189103E-01
3.8915475E-03 -2.9417654E+02  1.0078287E+02  1.0624266E+03
    45  4.1809016E+01  2.3918286E-02        1.4646019E-01 -3.3243655E-01
-1.7143071E-01 -2.3311524E+02 -2.2564393E+02  3.0174447E+02
    46  4.1988465E+01  2.3816065E-02       -4.5262595E-01 -1.5864303E-01
7.5431102E-02 -4.0848684E+01 -1.4179994E+02  1.4502054E+01
    47  4.2196205E+01  2.3698814E-02        8.2747224E-03  6.3518308E-02
1.5430205E-02 -1.3720067E+02  2.2480327E+01 -8.4942038E+01
    48  4.2710846E+01  2.3413256E-02       -1.1226179E-02  6.0547145E-02
-1.9613121E-01 -1.3726299E+02 -2.3550909E+02 -5.5116972E+01
    49  4.3469220E+01  2.3004784E-02       -1.2556072E-04  1.2969990E-03
-6.4055961E-04 -5.9261147E-01 -6.5804786E-01 -4.4103524E-01
    50  4.7071816E+01  2.1244135E-02       -9.2969249E-04  1.0801556E-02
-1.5237650E-02  3.2344549E+01 -9.8471777E+00  1.1852546E+02
1================================================================================
================================================
  *** DAC3N ***     < M-4 > FREQUENCY,PERIOD,PARTCIPAT. FACT

================================================================================
================================================

  MODE <--FREQUENCY-> <-- PERIOD -->      <----------------------------
PARTICIPATION  FACTOR  ---------------------------------->
           (HZ)            (SEC)            ( X DIR. )    ( Y DIR. )    ( Z DIR.
)    ( X ROT. )    ( Y ROT. )    ( Z ROT. )
```

RBFB_Fix_2.txt

```
    51  4.8258023E+01  2.0721943E-02      -2.4608955E-03  3.6695519E-02
5.0862793E-02 -1.6433077E+02  3.8088999E+01  1.4025616E+02
    52  4.9707073E+01  2.0117861E-02      -9.0470612E-03 -6.5718336E-04
3.7156431E-03  1.0004606E+00 -9.0576937E+01 -3.7829975E+00
    53  5.1081371E+01  1.9576609E-02      -3.5935860E-02  2.4732517E-02
-1.9707752E-02 -9.4914965E+01 -4.7232256E+01 -2.7919499E+01
    54  5.1174365E+01  1.9541034E-02      -1.4332988E-01 -1.5419435E-02
-4.0667712E-02  8.3686295E+01 -9.1295488E+01 -2.4236055E+01
    55  5.1520722E+01  1.9409666E-02      -1.2693542E-02 -1.5402119E-01
1.4272942E-03 -1.3353327E+02 -3.4845865E+01  1.1073454E+01
    56  5.2209636E+01  1.9153552E-02      -2.0711726E-02 -4.2772814E-03
6.9555904E-02  2.7273864E+01  2.4232132E+02 -2.2133706E+01
    57  5.2439371E+01  1.9069641E-02       2.3520817E-02 -3.3391802E-02
-9.3729309E-04 -1.1305240E+01 -2.8195420E+01 -3.9409176E+02
    58  5.3812477E+01  1.8583051E-02       3.3262847E-02 -1.0298296E-02
-2.0795966E-02  1.2712341E+01  4.2199605E+01 -6.0921983E+01
    59  5.3876336E+01  1.8561025E-02       1.7906744E-02  4.3136885E-02
-1.8352041E-02 -1.1262402E+02  2.1721869E+01  7.2348856E+01
    60  5.4889327E+01  1.8218478E-02       6.9047730E-03  4.4832960E-03
4.1718559E-01  4.3568011E+01 -1.4052637E+02 -4.7658037E+00
    61  5.5464776E+01  1.8029461E-02      -2.7578655E-01 -3.0465205E-02
-2.3882177E-02  2.0630006E+01 -3.5435394E+02  2.4706694E+01
    62  5.5493291E+01  1.8020196E-02       2.4589422E-02 -2.8959263E-01
8.0034833E-03  3.0384006E+02  4.3490730E+01  2.1031518E+02
    63  5.7284667E+01  1.7456678E-02      -1.0389417E-02 -2.4185856E-03
-5.2160546E-01  6.8929154E+01  3.9155187E+01  7.2994827E+01
    64  5.7533949E+01  1.7381042E-02      -2.4437729E-04  3.0899362E-02
7.5641966E-03 -6.9347002E+01  3.9421479E-01 -7.3027006E+02
    65  5.9267795E+01  1.6872570E-02       2.5013242E-01  1.2509685E-02
1.6958446E-02 -9.6242375E-02  4.9467354E+01 -3.8754202E+01
    66  5.9970509E+01  1.6674863E-02       8.0349189E-03 -8.7882244E-03
7.0577787E-02  1.2320942E+02 -1.0749645E+02 -2.7463079E+01
    67  6.0078814E+01  1.6644803E-02       5.0590675E-04  1.1166976E-01
2.2590513E-02  3.0619174E+01 -1.8330406E+01  6.6987434E+01
    68  6.0866266E+01  1.6429462E-02       3.3841238E-02 -4.7169246E-02
-3.2908838E-01 -1.5271548E+02  1.9570362E+01  2.2075485E+01
    69  6.1046384E+01  1.6380987E-02       1.4816089E-01 -3.0441052E-01
1.0995668E-01  5.6730160E+00 -4.0547598E+01  4.8370421E+01
    70  6.1375302E+01  1.6293199E-02       2.0553981E-01  3.9225440E-01
-6.3091590E-04  7.8453288E+01 -4.1870791E+01  1.1125591E+02
    71  6.2522298E+01  1.5994294E-02       4.5134991E-02 -1.5072846E-01
3.4373745E-02 -1.1185559E+02 -1.6219562E+01  3.0837446E+02
    72  6.3048916E+01  1.5860701E-02      -2.0214258E-01 -9.2268058E-02
-2.1538582E-02 -9.7715255E+01  1.5955275E+01 -5.1371009E+01
    73  6.3072775E+01  1.5854701E-02      -4.3995371E-02 -2.3376869E-02
3.0561398E-02 -9.5775863E+00  1.1366078E+02 -8.1964920E+00
    74  6.4501702E+01  1.5503467E-02       1.6869739E-03 -3.9857260E-03
3.7915353E-02 -1.9315915E+02  2.2741412E+01  1.5146442E+01
    75  6.6908884E+01  1.4945698E-02      -6.7216787E-03  5.1308750E-02
4.6757510E-03 -3.4708993E+01  9.5277697E+00  1.7748535E+02
    76  6.8181687E+01  1.4666695E-02      -1.2272716E-03 -5.7359845E-04
-5.8632948E-02  8.0707311E+00  2.7034909E+02 -6.1172521E+00
    77  6.9325868E+01  1.4424630E-02       6.1902657E-07 -4.4129454E-04
-1.9846992E-03 -3.2497989E+01 -2.9438328E+00 -7.7731079E-01
    78  6.9954855E+01  1.4294933E-02       4.6518903E-04 -1.5159382E-04
-9.4291115E-04  1.2563553E+00 -2.0600558E+01 -1.3040903E+00
    79  7.4199477E+01  1.3477184E-02       2.2555126E-03 -1.4580620E-03
7.8707004E-01  2.3501604E+01  6.7576679E+02 -8.2574243E+00
    80  7.5071894E+01  1.3320564E-02      -7.7847459E-05  8.1038451E-03
5.8177511E-03 -8.8799110E+01 -3.1089082E+01 -1.3733630E+02
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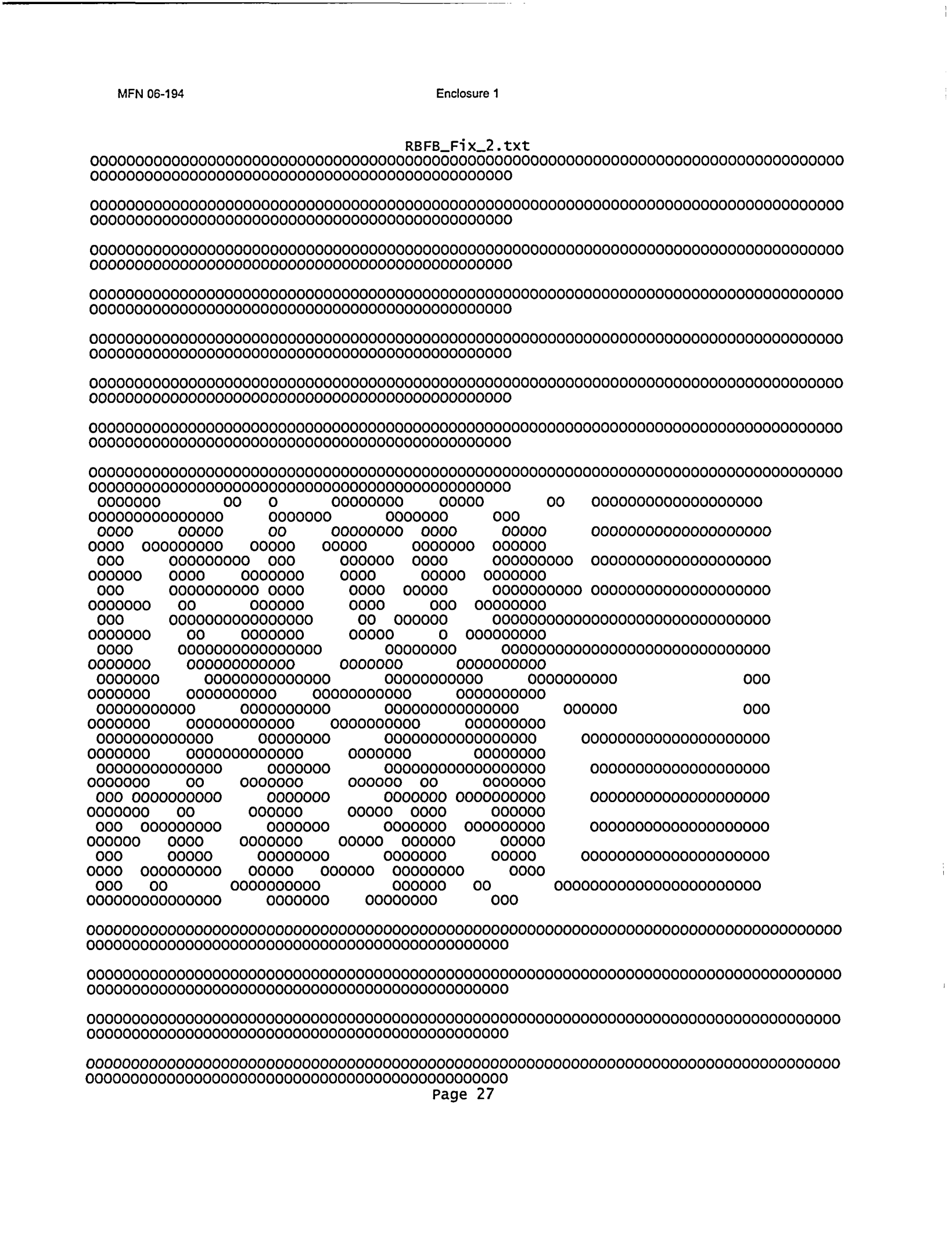
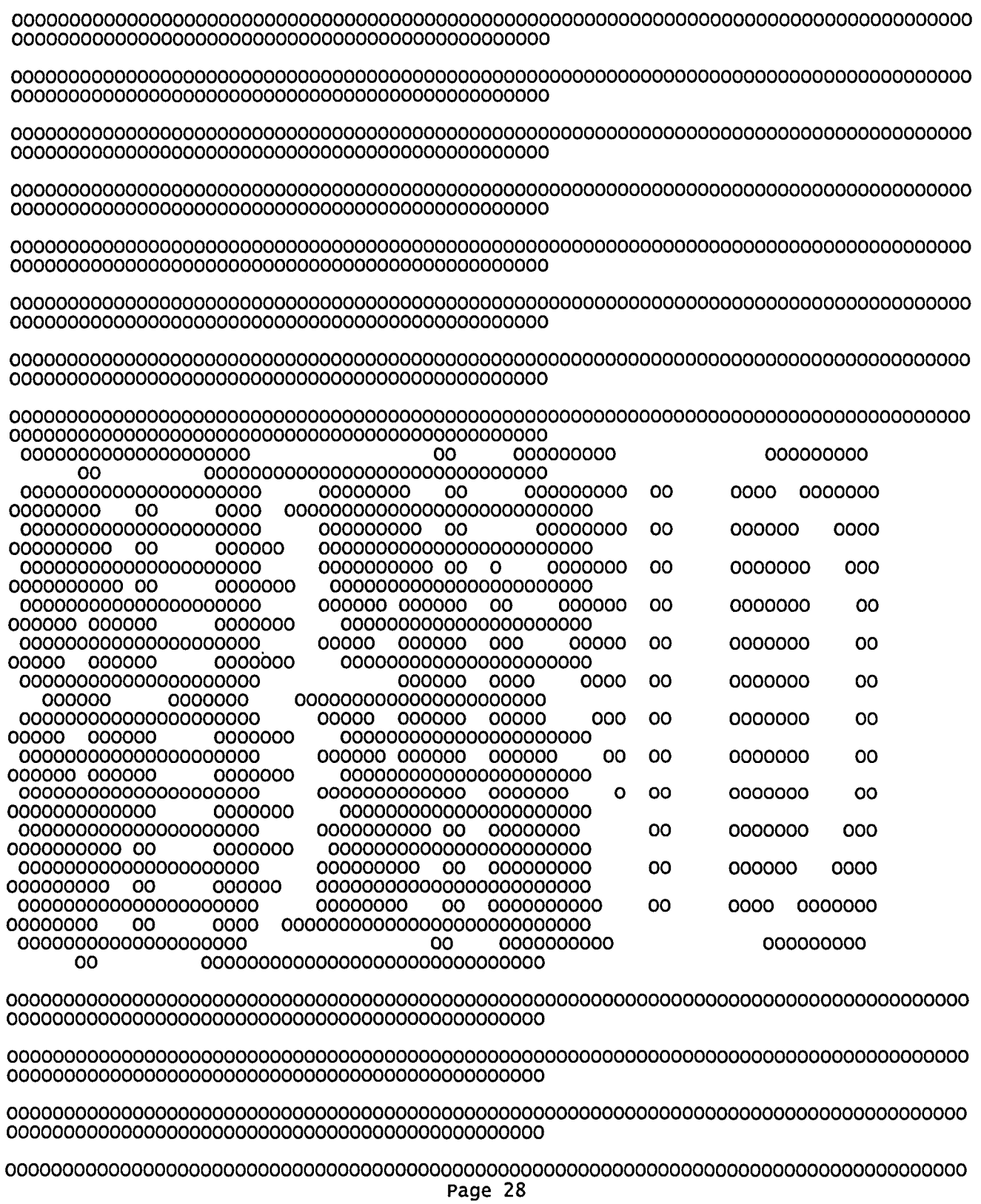
RBFB_Fix_2.txt



RBFB_Fix_2.txt



RBFB_Fix_2.txt
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Shimizu Engineering Report

Project	General Electric Company ESBWR Project	Shimizu Document No.	SER-ESB-024
Title	Revised Control Building Stick Model	Rev.	0
		Issued Date	6/22/06
		Revised Date	

NOTE:

This document provides the revised Control Building (CB) stick model in response to NRC's Audit comment on RAI 3.7-36.

The followings are revised portions from the original DCD model.

1) Add a mass in the middle of each stick connecting between the adjacent floors.
2) Add a mass on the roof floor to model the penthouse dynamic behavior.

Tables 1 through 3 and Figures 1 and 2 show the revised model properties.

Appendix A shows eigenvalue analysis results.
Appendix B shows additional information requested by NRC for the preparation of SASSI model.

In addition, the revised model properties in DAC3N text format are provided separately as follows.

1) Floor oscillators are modeled as it is. (final seismic analysis model)
2) Floor oscillators are eliminated and their weights are added to No.5. (This model is used for the eigenvalue analysis in Appendix A)

0	6/22/06	Initial Issue	Y.O.	M.T	S.O
Rev.	Date	Note	Approve	Review	Prepare

Shimizu Corporation	Prepared by	S. Oguri	6/22/06
	Reviewed by	M. Takeda	6/22/06
	Approved by	Y. Orito	6/22/06

Table 1 Seismic Model Properties of CB Model (Revised)

EL (m)	Node No.	Weight (kN)			Rotational Inertia (x 10^4 kN•m^2)			Elem. No.	Shear Area (m^2)		Axial Area (m^2)	Moment of Inertia (x$10^2 m^4$)			Material No.
		X (NS-dir)	Y (EW-dir)	Z (Vertical)	Jxx (EW-dir)	Jyy (NS-dir)	Jzz Torsion		Sx (NS-dir)	Sy (EW-dir)	Sa (UD-dir)	Ixx (EW-dir)	Iyy (NS-dir)	Izz Torsion	
13.500	6	11278	11278	0	0	0	0								
								Spring Constant X-dir. 8.58x10^4 MN/m Y-dir. 5.62x10^4 MN/m							
9.060	5	22065	22065	22123	191	303	492								
								14	39.47	31.06	68.57	31.98	58.43	120.63	13
6.855	145	6080	6080	6080	0	0	0								
								145	39.47	31.06	68.57	31.98	58.43	120.63	13
4.650	4	26576	26576	26576	222	341	608								
								13	54.28	42.16	93.20	49.90	91.06	162.24	13
1.325	134	11180	11180	11180	0	0	0								
								134	54.28	42.16	93.20	49.90	91.06	162.24	13
-2.000	3	23173	23173	23173	221	328	592								
								12	54.54	61.45	110.95	94.13	92.09	161.49	13
-4.700	123	9356	9356	9356	0	0	0								
								123	54.54	61.45	110.95	94.13	92.09	161.49	13
-7.400	2	35333	35333	35333	217	333	542								
								11	721.14	721.14	721.14	340.40	551.73	985.06	9
-10.400	1	27949	27949	27949	134	216	346								

Table 2 Material Constant (not changed)

	Material No.	Young's Modulus (x10^4kN/m^2)	Shear Modulus (x10^4kN/m^2)	Poisson's Ratio	Critical Damping (%)
					SSE
Basemat	9	2491	1055	0.17	7.0
Others	13	2785	1180	0.17	7.0

Table 3 Slab Node Properties and Spring Constants (not changed)

EL (m)	Oscillators					
	Node No.	Weight (kN)	Spring No.	Node No.		Stiffness ($x10^2$ kN/m)
				I-node	J-node	
9.06	9101	7311	9101	5	9101	2.98E+04
	9102	2502	9102	5	9102	2.22E+04
	9103	340	9103	5	9103	5.91E+03
	9104	680	9104	5	9104	2.03E+04
	9105	387	9105	5	9105	1.60E+04

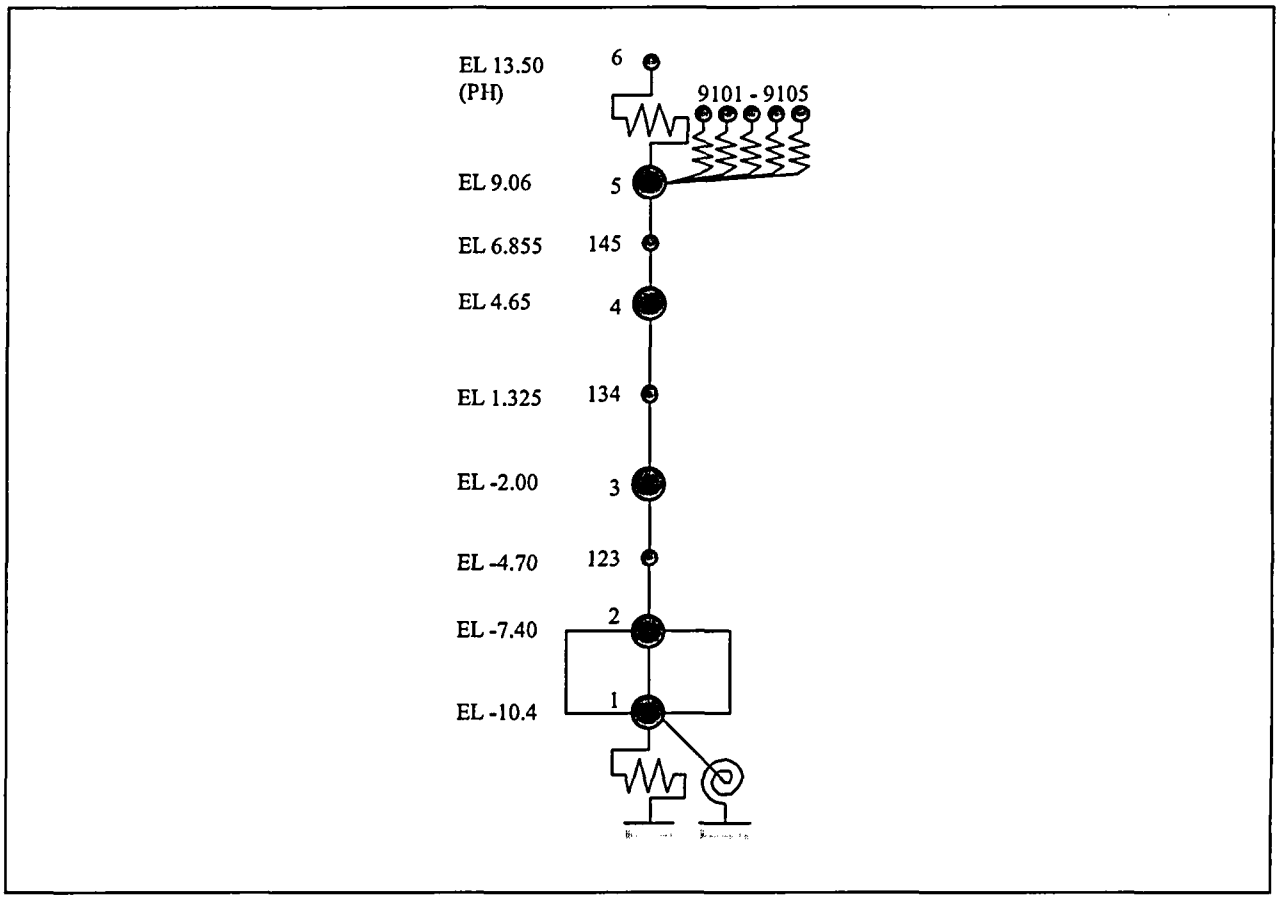
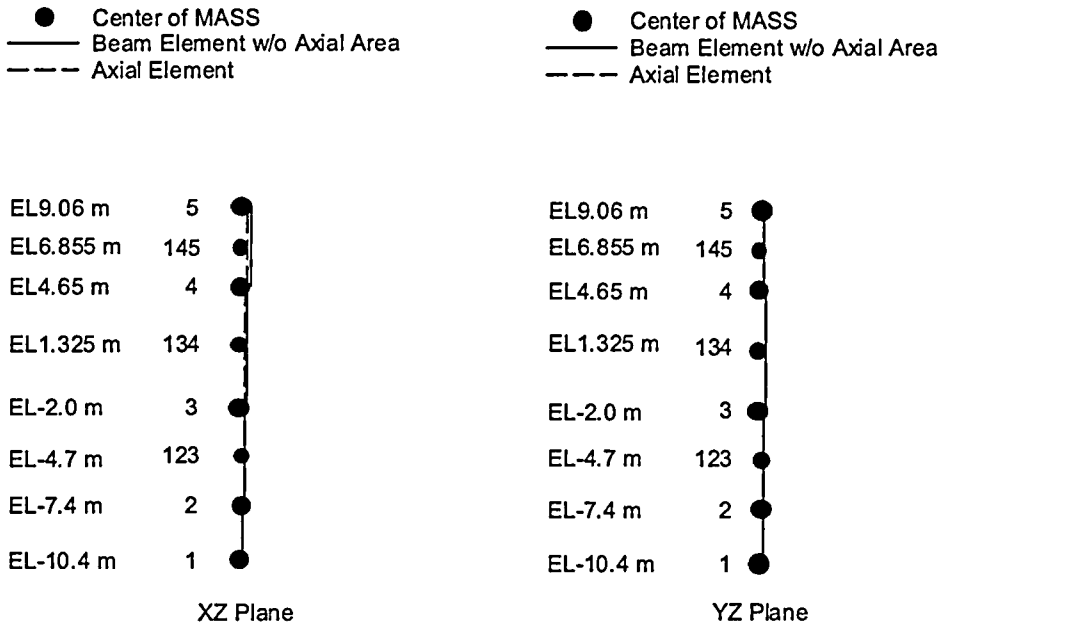


Figure 1 CB Seismic Model (Revised)



EL (m)	Node No.	Center of Gravity (m) X (NS-dir)	Center of Gravity (m) Y (EW-dir)	Center of Rigidity (m) X (NS-dir)	Center of Rigidity (m) Y (EW-dir)	Centroid (m) X (EW-dir)	Centroid (m) Y (NS-dir)
9.060	5	14.62	11.33				
				15.14	11.45	14.89	11.45
6.855	145	14.53	11.12				
				15.14	11.45	14.89	11.45
4.650	4	14.53	11.12				
				14.94	11.51	14.80	11.48
1.325	134	14.48	11.10				
				14.94	11.51	14.80	11.48
-2.000	3	14.48	11.10				
				14.81	11.45	14.76	11.45
-4.700	123	14.63	11.31				
				14.70	11.45	14.76	11.45
-7.400	2	14.63	11.31				
				14.70	11.45	14.70	11.45
-10.400	1	14.56	11.22				

Figure 2 Center of Gravity, Center of Rigidity and Centroid

Appendix A Eigenvalue Analysis Results

Analysis model conditions are follows.

- Fixed base case
- Eliminate floor oscillators and add their weights to Node 5.

It was confirmed from the results that the number of dynamic degrees of freedom is no less than twice the number of modes below the cutoff frequency, 50Hz. (reference : RAI 3.4-24)

Table A-1 Eigenvalue Analysis Results

FIX	X			Y			Z		
	NODE= 8	DOF= 15		NODE= 8	DOF= 15		NODE= 7	DOF= 7	
1	2-th	10.89 Hz	6 X	1-th	10.28 Hz	6 Y	4-th	25.01 Hz	5 Z
2	3-th	16.67 Hz	6 X	6-th	26.96 Hz	134 Y	5-th	25.98 Hz	5 Z
3	8-th	34.56 Hz	6 X	7-th	32.07 Hz	6 Y	15-th	67.94 Hz	3 Z
4	10-th	46.76 Hz	6 X	9-th	44.33 Hz	6 Y	17-th	73.89 Hz	3 Z
5	11-th	49.64 Hz	6 X	12-th	53.14 Hz	5 Y			
6	13-th	61.04 Hz	6 X	18-th	87.75 Hz	134 Y			
7	14-th	64.7 Hz	5 X	19-th	92.71 Hz	134 Y			
8	16-th	72.05 Hz	4 X						
9	20-th	96.72 Hz	134 X						
10									
11									
12									
13									
14									
15									

Appendix B Additional Information for SASSI Model

Table B-1 CB SASSI Model Properties

EL (m)	Node No.	Weight (kN) X (NS-dir)	Weight (kN) Y (EW-dir)	Weight (kN) Z (Vertical)	Rotational Inertia (x 10^4 kN•m^2) Jxx (EW-dir)	Rotational Inertia (x 10^4 kN•m^2) Jyy (NS-dir)	Rotational Inertia (x 10^4 kN•m^2) Jzz Torsion	Elem. No.	Shear Area (m^2) Sx (NS-dir)	Shear Area (m^2) Sy (EW-dir)	Axial Area (m^2) Sa (UD-dir)	Moment of Inertia ($x10^2m^4$) Ixx (EW-dir)	Moment of Inertia ($x10^2m^4$) Iyy (NS-dir)	Moment of Inertia ($x10^2m^4$) Izz Torsion	Material No.
13.500	6	11278	11278	0	0	0	0								
								Spring Constant X-dir. 8.58x10^4 MN/m Y-dir. 5.62x10^4 MN/m							
9.060	5	22065	22065	22123	191	303	492								
								14	39.47	31.06	68.57	31.98	58.43	120.63	13
6.855	145	6080	6080	6080	0	0	0								
								145	39.47	31.06	68.57	31.98	58.43	120.63	13
4.650	4	24710	24710	24710	151	238	388								
Below Grade								13	0.00	0.00	0.00	0.00	0.00	0.00	13
1.325	134	400	400	400	0	0	0								
								134	0.00	0.00	0.00	0.00	0.00	0.00	13
-2.000	3	19737	19737	19737	95	154	250								
								12	0.00	19.80	19.80	45.25	0.00	0.00	13
-4.700	123	334	334	334	0	0	0								
								123	0.00	19.80	19.80	45.25	0.00	0.00	13
-7.400	2	33765	33765	33765	163	262	420								
								11	721.14	721.14	721.14	340.40	551.73	985.06	9
-10.400	1	27949	27949	27949	134	216	346								

EL (m)	Node No.	Center of Gravity (m) X (NS-dir)	Center of Gravity (m) Y (EW-dir)	Center of Rigidity (m) X (NS-dir)	Center of Rigidity (m) Y (EW-dir)	Centroid (m) X (EW-dir)	Centroid (m) Y (NS-dir)
9.060	5	14.62	11.33				
				15.14	11.45	14.89	11.45
6.855	145	14.51	11.00				
				15.14	11.45	14.89	11.45
4.650	4	14.51	11.00				
Below Grade				14.70	14.70	14.70	11.45
1.325	134	14.42	10.83				
				14.70	14.70	14.70	11.45
-2.000	3	14.42	10.83				
				14.70	14.70	14.70	11.45
-4.700	123	14.63	11.26				
				14.70	14.70	14.70	11.45
-7.400	2	14.63	11.26				
				14.70	11.45	14.70	11.45
-10.400	1	14.56	11.22				

Note : Contribution of external walls below grade, which are shaded in Figures B-1 and B-2, are neglected.

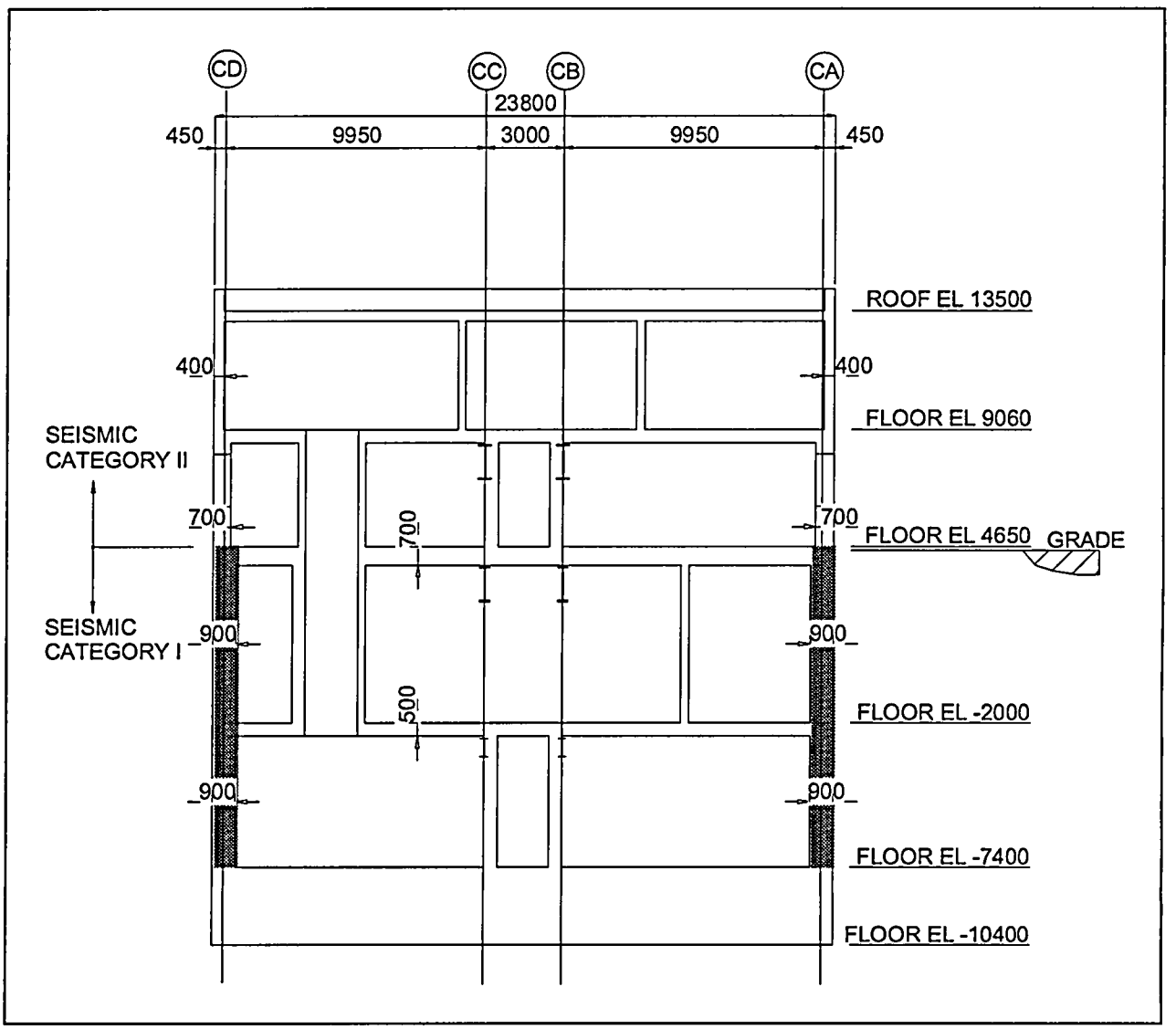


Figure B-1 Control Building EW-section

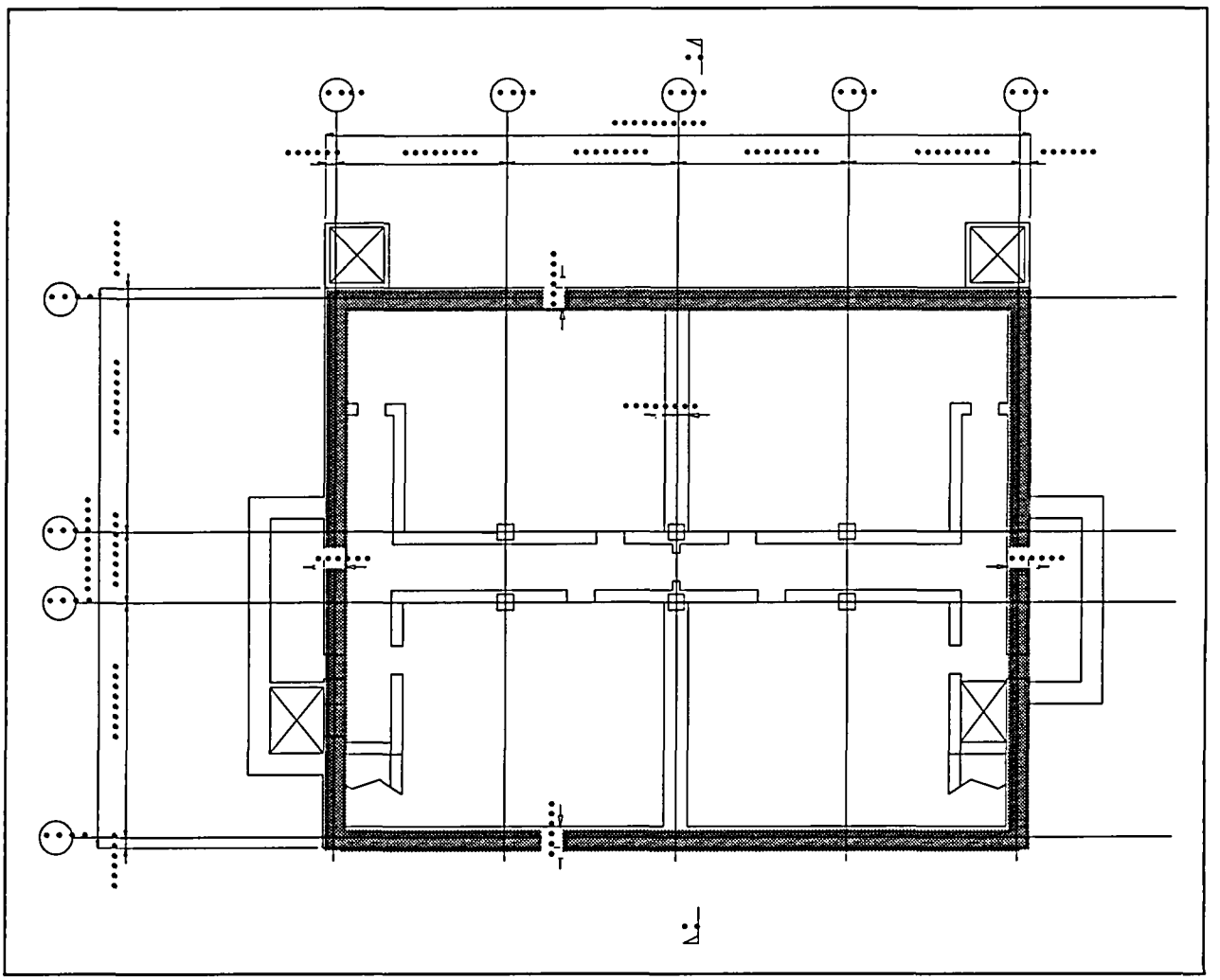
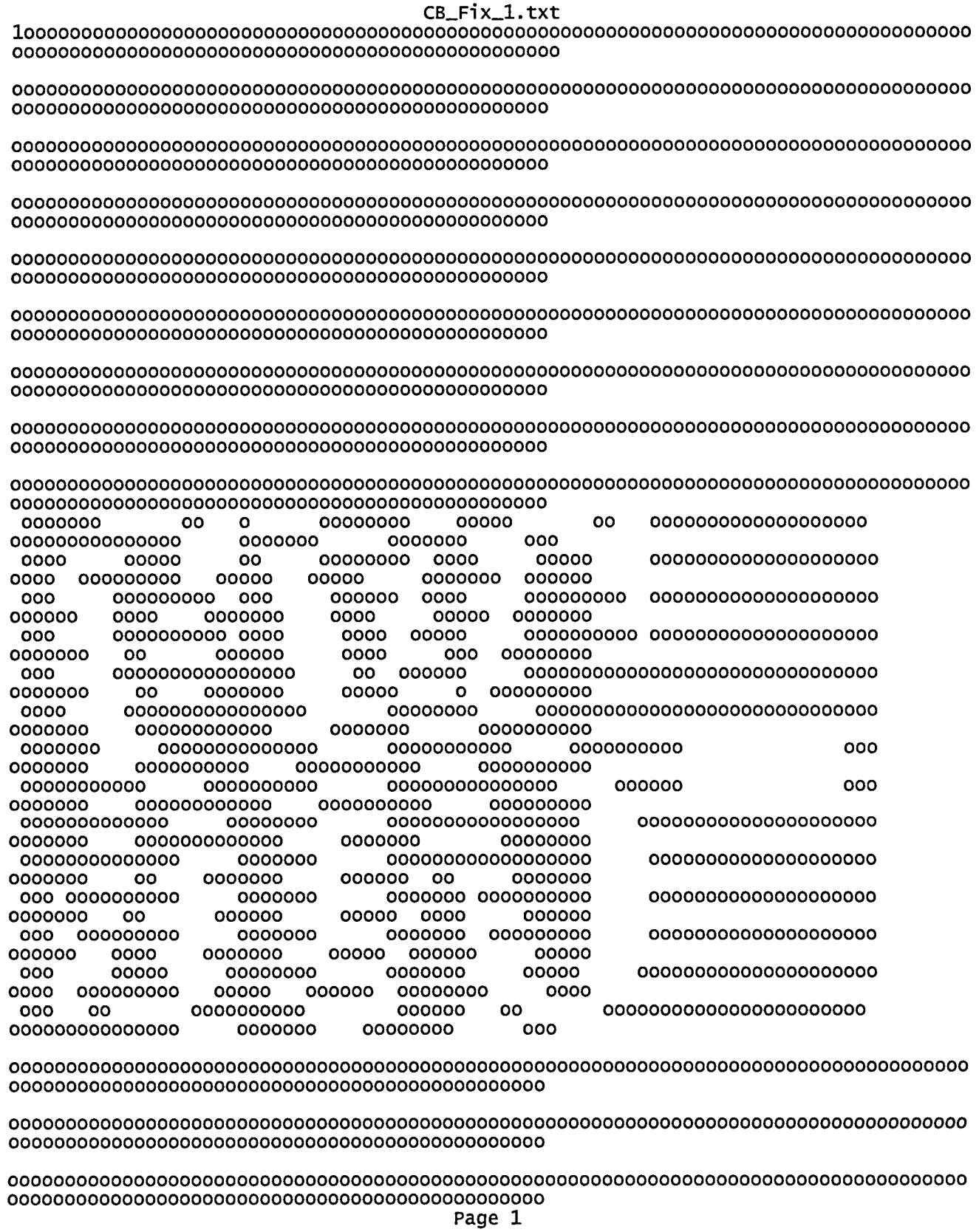
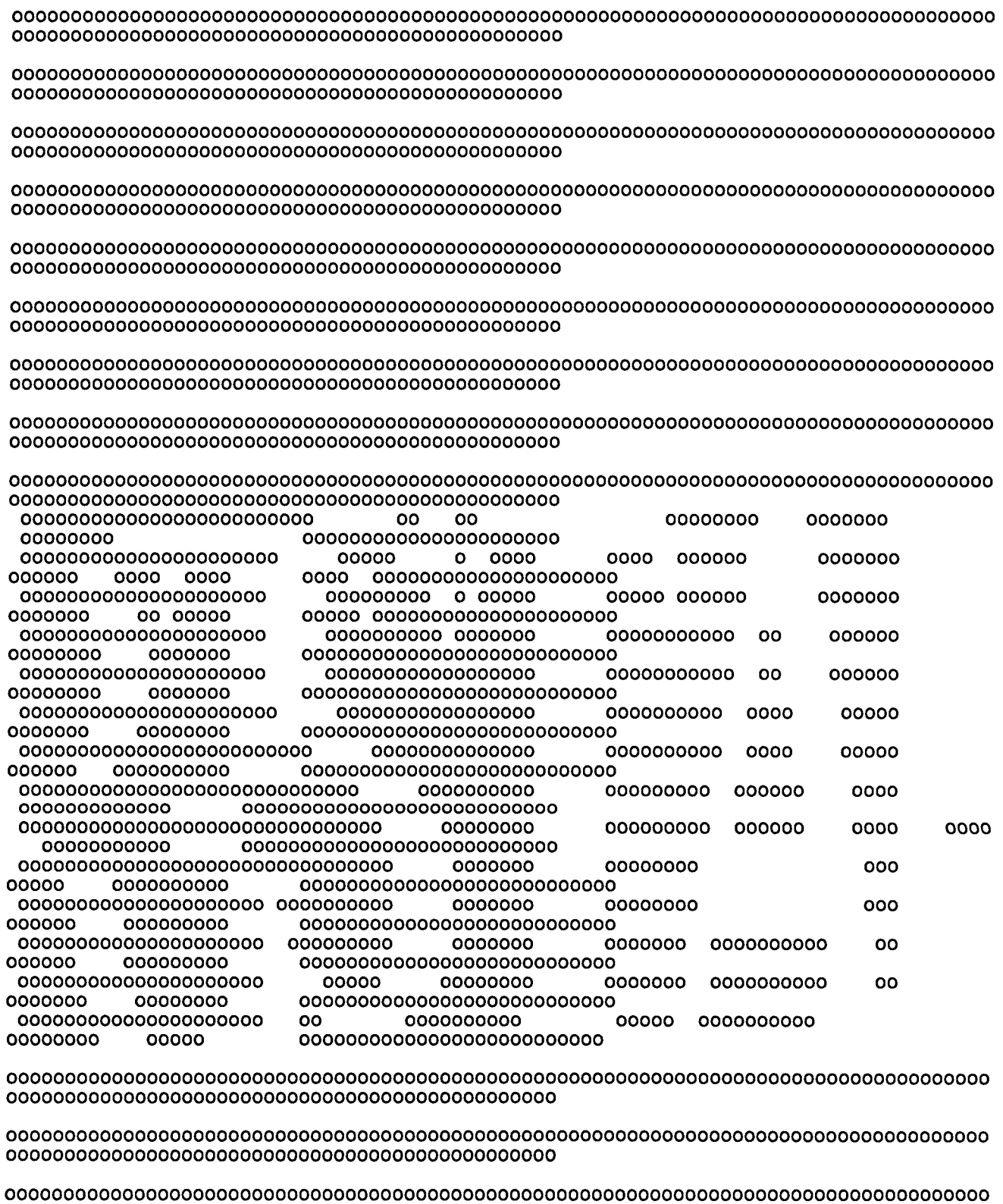


Figure B-2 Control Building Floor at EL -7400

CB_Fix_1.txt



CB_Fix_1.txt



CB_Fix_1.txt

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  *** dac3n ***      < g-2 > inpt data echo

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         ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
         titl  esbwr cb dynamic analysis -medium- (disp mdv1=5)

               njob lcpu lchk lprn
         istp  1000 1000    1    2
               leig meiu mtrv lprn npr1 npr2          tole      emin      emax
          mstp    1   30  100    2   30   30                              500.0
         mstp     1   20  100    2   25   25                             200.0
         menr

               lite nite nktm nkit lcnv lstu lstp
         iter     1   10    1   10  110         1
                        epsd      epsf      epse      emsd      emsf      emse
         ite2         1.0e-08   1.0e-06   1.0e-12   1.0e-08   1.0e-04   1.0e-12

               key1 key2 key3 inum
         outr
         ewav   joi  acc
         ewav   joi  dis
         ewav   spl
         ewav   dsl

               inum    xyzxyz   x-coord   y-coord   z-coord ray-damp1 ray-damp2
         joi   9101    ff fff         0         0   9.06e+2
         joi   9102    ff fff         0         0   9.06e+2
         joi   9103    ff fff         0         0   9.06e+2
         joi   9104    ff fff         0         0   9.06e+2
         joi   9105    ff fff         0         0   9.06e+2

         spl   8001    5    6           8001    1
         spl   8002    5    6           8002    2
                                  Page 3
```

CB_Fix_1.txt

```
 spl   8003    5    6            8002    3
      imat      rstf                hdm1      hdm2      henr
smat  8001 8.760e+04                -1.0      -1.0      0.07
smat  8002 5.730e+04                -1.0      -1.0      0.07
 smat  8003   1.0e+10                 -1.0      -1.0      0.07

joi      6      ffff 14.618e+2 11.321e+2   13.5e+2
joi      5           14.618e+2 11.321e+2   9.06e+2
joi    145           14.529e+2 11.119e+2  6.855e+2
joi      4           14.529e+2 11.119e+2   4.65e+2
joi    134           14.497e+2 11.087e+2  1.325e+2
joi      3           14.497e+2 11.087e+2   -2.0e+2
joi    123           14.637e+2 11.289e+2 -4.700e+2
joi      2           14.637e+2 11.289e+2   -7.4e+2
 joi    112          14.563e+2 11.215e+2 -8.900e+2
joi    999    ffffff   10000.0       0.0       0.0

            x-weight  y-weight  z-weight x-inertia y-inertia z-inertia
wei      6    1150.0    1150.0       0.0      0.01      0.01      0.01
wei      5    2250.0    2250.0    2256.0  19.45e+8  30.87e+8  50.19e+8
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
```

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1================================================================================
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  *** dac3n ***      < g-2 > inpt data echo

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================================================

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
wei      4    2710.0    2710.0    2710.0  22.68e+8  34.80e+8  61.98e+8
wei      3    2363.0    2363.0    2363.0  22.55e+8  33.44e+8  60.34e+8
wei      2    3603.0    3603.0    3603.0  22.16e+8  33.94e+8  55.28e+8
wei      1    2850.0    2850.0    2850.0  13.70e+8  22.05e+8  35.31e+8
wei    999   0.00001                      0.00001   0.00001   0.00001
wei   9101         0         0     745.5         0         0         0
wei   9102         0         0     255.0         0         0         0
wei   9103         0         0      34.6         0         0         0
wei   9104         0         0      69.4         0         0         0
wei   9105         0         0      39.5         0         0         0

wei    145     620.0     620.0     620.0     0.001     0.001     0.001
wei    134    1140.0    1140.0    1140.0     0.001     0.001     0.001
wei    123     954.1     954.1     954.1     0.001     0.001     0.001
 wei    112    2850.0    2850.0    2850.0     0.001     0.001     0.001

      inum inod jnod knod irgd imat isct
 bml    104    4    5  999 4104   13  104
 bml    103    3    4  999 3103   13  103
 bml    102    2    3  999 2102   13  102
 bml    101    1    2  999 1101    9  101
 bml    204    4    5  999 4204   13  204
 bml    203    3    4  999 3203   13  203
 bml    202    2    3  999 2202   13  202
 bml    201    1    2  999 1201   13  201
 shear elem
bml    104  145    5  999 4104   13  104
bml   2104    4  145  999 4504   13  104
bml    103  134    4  999 3103   13  103
bml   2103    3  134  999 3503   13  103
bml    102  123    3  999 2102   13  102
bml   2102    2  123  999 2502   13  102
bml    101    1    2  999 1101    9  101
```

```
                                CB_Fix_1.txt
 bml   2101    1  112  999 1501    9  101
 axial elem
bml    204  145    5  999 4204   13  204
bml   2204    4  145  999 4604   13  204
bml    203  134    4  999 3203   13  203
bml   2203    3  134  999 3603   13  203
bml    202  123    3  999 2202   13  202
bml   2202    2  123  999 2602   13  202
bml    201    1    2  999 1201    9  201
 bml   2201    1  112  999 1601    9  201

      inum inod jnod knod irgd imat iknd
spl   9101    5 9101           9101    3
spl   9102    5 9102           9102    3
spl   9103    5 9103           9103    3
spl   9104    5 9104           9104    3
spl   9105    5 9105           9105    3
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
```

continue to next page

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1==========================================================================================
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  *** dac3n ***      < g-2 > inpt data echo

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==============================================

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

   rigid link
      imat        xi        yi        zi        xj        yj        zj
 shear elem
rigd  4104      61.1      33.1       0.0      52.2      12.9       0.0
rigd  4504      61.1      33.1       0.0      61.1      33.1       0.0
rigd  3103      44.1      41.8       0.0      40.9      38.6       0.0
rigd  3503      44.1      41.8       0.0      44.1      41.8       0.0
rigd  2102      17.7      16.1       0.0      31.7      36.3       0.0
rigd  2502      17.7      16.1       0.0      17.7      16.1       0.0
rigd  1101      13.7      23.5       0.0       6.3      16.1       0.0
rigd  1501      13.7      23.5       0.0      13.7      23.5       0.0
 axial elem
rigd  4204      36.5      33.1       0.0      27.6      12.9       0.0
rigd  4604      36.5      33.1       0.0      36.5      33.1       0.0
rigd  3203      30.7      39.4       0.0      27.5      36.2       0.0
rigd  3603      30.7      39.4       0.0      30.7      39.4       0.0
rigd  2202      12.3      16.1       0.0      26.3      36.3       0.0
rigd  2602      12.3      16.1       0.0      12.3      16.1       0.0
rigd  1201      13.7      23.5       0.0       6.3      16.1       0.0
rigd  1601      13.7      23.5       0.0      13.7      23.5       0.0

      isct        sa        sb        sc        ja        ib        ic
bsct   104    0.0001   39.47e4   31.06e4 120.63e10  31.98e10  58.43e10
bsct   103    0.0001   54.28e4   42.16e4 162.24e10  49.90e10  91.06e10
bsct   102    0.0001   54.54e4   61.45e4 161.49e10  94.13e10  92.09e10
bsct   101    0.0001  721.14e4  721.14e4 985.06e10 340.40e10 551.73e10
bsct   204   68.57e4    0.0001    0.0001    0.0001    0.0001    0.0001
bsct   203   93.20e4    0.0001    0.0001    0.0001    0.0001    0.0001
bsct   202  110.95e4    0.0001    0.0001    0.0001    0.0001    0.0001
bsct   201  721.14e4    0.0001    0.0001    0.0001    0.0001    0.0001

      imat        gg        ee      hdm1      hdm2      henr
bmat    13    1.20e2    2.84e2      -1.0      -1.0      0.07
bmat     9    1.08e2    2.54e2      -1.0      -1.0      0.07
      imat      rstf                hdm1      hdm2      henr
```

CB_Fix_1.txt

```
smat  9101   3.035e3                  -1.0      -1.0      0.07
smat  9102   2.259e3                  -1.0      -1.0      0.07
smat  9103   6.030e2                  -1.0      -1.0      0.07
smat  9104   2.073e3                  -1.0      -1.0      0.07
smat  9105   1.632e3                  -1.0      -1.0      0.07
      mstp mdv1 mdv2 lprn                        dlta      alfa      beta
dstp  2200    5    1    2                      0.010

      ncod mcod idir      xmax
wav   1000    1    1       0.0
wav   1000    2    2       0.0
wav   1000    3    3       0.0
=========================================================================
 soil data
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
continue to next page
1=============================================================================
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  *** dac3n ***      < g-2 > inpt data echo

=============================================================================
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----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

             c/b case fix
=========================================================================
joi      1    ffffff 14.563e+2 11.215e+2  -10.4e+2

=========================================================================
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
end of input data .
1=============================================================================
==============================================
  *** dac3n ***    < i-1 > check echo of "titl" "istp" card

=============================================================================
==============================================


 *** titls ***

                esbwr cb dynamic analysis -medium- (disp mdv1=5)


   hlinix    hupl0x    hbilix    hntrix    hmultx
   htkd1x    hdtrmx    hgenkx    hbifrx    hgentx
   hgnpkx    hdtrix    hdtr2x    hfuncx    hrmbgx
   hdtrfx    hbrgkx    habltx    hlrb3x    hlrbkx
   hgfv3x    hslipx    hinadx    hpeakx    huprtx
   hupkvx    hupvrx    hmsmcx    hmsncx

  1joijoi   2wavnon   3vbrnon  11dslspl  21splspl
 22spnspl  28trsspl  31bmlspl  32bmnspl   4up1non
  5uphnon   6gumnon   7uptnon  13dsespl  14dskspl
 23spespl  25spbspl  26spdspl  27sptspl  34bmkspl
 36clkspl  43grnnon  51recrec  61matnon  62mt2non
 65vecnon  71wlkwlk  72wnkwlk  81cnkspl  84bnkspl
 86bckspl 112spispl 113fr2spl 115sp2spl 116sp3spl
124bmsspl 199engnon 141msssp1 142penspl 143msmspl
144ex1spl 145v95spl
```

CB_Fix_1.txt

```
 *** istp card ***

                    njob = 1000      : n-code of job
                                     def= 10000
                    ncpu = 1000      : cpu time limit (sec) ( not use )
                                     def= 1000
                    lchk =    1      : calculation level
                                     0,1= to data
                                       2= check only
                    lprn =    2      : print level for i-step (def=2)
                    lket =    5      : keta-suu of printout
                                       5= normal
                                       7= 7-keta
                                       9= 9-keta
1=================================================================================
================================================
  *** dac3n ***    < i-2 > check echo of "dstp" card

=================================================================================
================================================


 *** dstp card ***

                    land =    2      : analysis flag for d-step
                                     0,1=not exec,2=exec
                    mstp = 2200      : number of time step
                    mdv1 =    5      : divid number of time step
                    mdv2 =    1      : skip number of output data
                    lprn =    2      : print level for d-step (def=2)
                    npr1 =    0      : start time step for print
                    npr2 =    0      : end   time step for print
                    mwww =11000      : output wave length
                    dlta = 1.000E-02: time increment
                    dlt2 = 2.000E-03: time increment (calculate)
                    dlt3 = 2.000E-03: time increment (output)
                    alph = 5.000E-01: constant of newmark beta method
                                     def=0.5
                    beta = 2.500E-01: constant of newmark beta method
                                     def=0.25
1=================================================================================
================================================
  *** dac3n ***    < i-3 > echo of "rayl","iter","pdef" car

=================================================================================
================================================


 *** rayl card ***

                    lray =    1      : flag of rayleigh damping
                                     0,1= not considered
                                       2= considered
                    lrat =    1      : flag of rayleigh damping
                                     0,1= propotion to original  stif.
                                       2= propotion to temporary stif.
                    hdm1 =  .000E+00: damping constanr at frq1
```

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```
hdm2 =  .000E+00: damping constanr at frq2
frq1 =  .000E+00: freq to evaluate hdm1
frq2 =  .000E+00: freq to evaluate hdm2

*** iter card ***

lite =    1     : itertion method
                  0,1=newton1, 2:newton2
nite =   10     : maximum number of iteration
                  def= 5
nktm =    1     : time interval to remake matrix
                  def= 1
nkit =   10     : max number of iteration
                  to remake matrix
                  def= 0
lcnv =  110     : flag of convergence
                  def= 110 disp. & force criteria
                  (100=disp,010=force,001=energy)
lstu =    3     : flag of lstf
                  2     : use (n-1)step stiffness
                  3(def): use (n)step (i-1)iter.
lstp =    1     : flag of stop
                  0(def): stop if conv. eror
                  1     : not stop
epsd = 1.000E-08: eror on displacement
                  def= 1.0e-6
epsf = 1.000E-06: eror on unbalanced force
                  def= 1.0e-6
epse = 1.000E-12: eror on energy
                  def= 1.0e-12
epmd = 1.000E-08: eror on rotation
                  def= 1.0e-8
epmf = 1.000E-04: eror on unbalanced moment
                  def= 1.0e-4
epme = 1.000E-12: eror on energy
                  def= 1.0e-12

*** pdef card ***

lpde =    0     : p-delta effect
                  = 0  :  not considered
                  = 1  :      considered
1================================================================================
================================================
  *** dac3n ***    < i-11 > check echo of "rigd" card

================================================================================
================================================


    i   irgd    x-cod(i)  y-cod(i)  z-cod(i)  x-cod(j)  y-cod(j)  z-cod(j)

    1   4104    6.110E+01 3.310E+01  .000E+00 5.220E+01 1.290E+01  .000E+00
    2   4504    6.110E+01 3.310E+01  .000E+00 6.110E+01 3.310E+01  .000E+00
    3   3103    4.410E+01 4.180E+01  .000E+00 4.090E+01 3.860E+01  .000E+00
    4   3503    4.410E+01 4.180E+01  .000E+00 4.410E+01 4.180E+01  .000E+00
    5   2102    1.770E+01 1.610E+01  .000E+00 3.170E+01 3.630E+01  .000E+00
    6   2502    1.770E+01 1.610E+01  .000E+00 1.770E+01 1.610E+01  .000E+00
    7   1101    1.370E+01 2.350E+01  .000E+00 6.300E+00 1.610E+01  .000E+00
    8   1501    1.370E+01 2.350E+01  .000E+00 1.370E+01 2.350E+01  .000E+00
```

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9	4204	3.650E+01	3.310E+01	.000E+00	2.760E+01	1.290E+01	.000E+00
10	4604	3.650E+01	3.310E+01	.000E+00	3.650E+01	3.310E+01	.000E+00
11	3203	3.070E+01	3.940E+01	.000E+00	2.750E+01	3.620E+01	.000E+00
12	3603	3.070E+01	3.940E+01	.000E+00	3.070E+01	3.940E+01	.000E+00
13	2202	1.230E+01	1.610E+01	.000E+00	2.630E+01	3.630E+01	.000E+00
14	2602	1.230E+01	1.610E+01	.000E+00	1.230E+01	1.610E+01	.000E+00
15	1201	1.370E+01	2.350E+01	.000E+00	6.300E+00	1.610E+01	.000E+00
16	1601	1.370E+01	2.350E+01	.000E+00	1.370E+01	2.350E+01	.000E+00

*** dac3n *** < i-16 > check echo of "smat" card

i	imts	stiffness	ray-damp1	ray-damp2	enrg-damp
1	8001	8.760E+04	-1.000E+00	-1.000E+00	7.000E-02
2	8002	5.730E+04	-1.000E+00	-1.000E+00	7.000E-02
3	9101	3.035E+03	-1.000E+00	-1.000E+00	7.000E-02
4	9102	2.259E+03	-1.000E+00	-1.000E+00	7.000E-02
5	9103	6.030E+02	-1.000E+00	-1.000E+00	7.000E-02
6	9104	2.073E+03	-1.000E+00	-1.000E+00	7.000E-02
7	9105	1.632E+03	-1.000E+00	-1.000E+00	7.000E-02

*** dac3n *** < i-12 > check echo of "bmat" card

i	imat	gg	ee	ray-damp1	ray-damp2	enrg-damp
1	13	1.200E+02	2.840E+02	-1.000E+00	-1.000E+00	7.000E-02
2	9	1.080E+02	2.540E+02	-1.000E+00	-1.000E+00	7.000E-02

*** dac3n *** < i-13 > check echo of "bsct" & "bsctd"

i	isct	sa	sb	sc	ja	ib	ic
1	104	1.000E-04	3.947E+05	3.106E+05	1.206E+12	3.198E+11	5.843E+11
2	103	1.000E-04	5.428E+05	4.216E+05	1.622E+12	4.990E+11	9.106E+11
3	102	1.000E-04	5.454E+05	6.145E+05	1.615E+12	9.413E+11	9.209E+11
4	101	1.000E-04	7.211E+06	7.211E+06	9.851E+12	3.404E+12	5.517E+12
5	204	6.857E+05	1.000E-04	1.000E-04	1.000E-04	1.000E-04	1.000E-04
6	203	9.320E+05	1.000E-04	1.000E-04	1.000E-04	1.000E-04	1.000E-04
7	202	1.110E+06	1.000E-04	1.000E-04	1.000E-04	1.000E-04	1.000E-04
8	201	7.211E+06	1.000E-04	1.000E-04	1.000E-04	1.000E-04	1.000E-04

*** dac3n *** < ec-1 > check echo of "joi" card

CB_Fix_1.txt

```
     i inod    xyzxyz   x-cod     y-cod     z-cod     hd-1      hd-2      w-x
w-y       w-z       j-x       j-y       j-z

     1 9101    001000  .000E+00  .000E+00 9.060E+02  .000E+00  .000E+00  .000E+00
.000E+00 7.455E+02  .000E+00  .000E+00  .000E+00
     2 9102    001000  .000E+00  .000E+00 9.060E+02  .000E+00  .000E+00  .000E+00
.000E+00 2.550E+02  .000E+00  .000E+00  .000E+00
     3 9103    001000  .000E+00  .000E+00 9.060E+02  .000E+00  .000E+00  .000E+00
.000E+00 3.460E+01  .000E+00  .000E+00  .000E+00
     4 9104    001000  .000E+00  .000E+00 9.060E+02  .000E+00  .000E+00  .000E+00
.000E+00 6.940E+01  .000E+00  .000E+00  .000E+00
     5 9105    001000  .000E+00  .000E+00 9.060E+02  .000E+00  .000E+00  .000E+00
.000E+00 3.950E+01  .000E+00  .000E+00  .000E+00
     6    6    110000 1.462E+03 1.132E+03 1.350E+03  .000E+00  .000E+00 1.150E+03
1.150E+03 1.150E+03 1.000E-02 1.000E-02 1.000E-02
     7    5    111111 1.462E+03 1.132E+03 9.060E+02  .000E+00  .000E+00 2.250E+03
2.250E+03 2.256E+03 1.945E+09 3.087E+09 5.019E+09
     8  145    111111 1.453E+03 1.112E+03 6.855E+02  .000E+00  .000E+00 6.200E+02
6.200E+02 6.200E+02 1.000E-03 1.000E-03 1.000E-03
     9    4    111111 1.453E+03 1.112E+03 4.650E+02  .000E+00  .000E+00 2.710E+03
2.710E+03 2.710E+03 2.268E+09 3.480E+09 6.198E+09
    10  134    111111 1.450E+03 1.109E+03 1.325E+02  .000E+00  .000E+00 1.140E+03
1.140E+03 1.140E+03 1.000E-03 1.000E-03 1.000E-03
    11    3    111111 1.450E+03 1.109E+03-2.000E+02  .000E+00  .000E+00 2.363E+03
2.363E+03 2.363E+03 2.255E+09 3.344E+09 6.034E+09
    12  123    111111 1.464E+03 1.129E+03-4.700E+02  .000E+00  .000E+00 9.541E+02
9.541E+02 9.541E+02 1.000E-03 1.000E-03 1.000E-03
    13    2    111111 1.464E+03 1.129E+03-7.400E+02  .000E+00  .000E+00 3.603E+03
3.603E+03 3.603E+03 2.216E+09 3.394E+09 5.528E+09
    14  999    000000 1.000E+04  .000E+00  .000E+00  .000E+00  .000E+00 1.000E-05
1.000E-05 1.000E-05 1.000E-05 1.000E-05 1.000E-05
    15    1    000000 1.456E+03 1.122E+03-1.040E+03  .000E+00  .000E+00 2.850E+03
2.850E+03 2.850E+03 1.370E+09 2.205E+09 3.531E+09
1================================================================================
================================================
  *** dac3n ***     < ec-2 > check echo of "wav" card

================================================================================
================================================


                    nc   = 1000      : ncode of earthquake wave
                    mc   =    1      : mcode of earthquake wave
                    idir =    1      : input dir. of earthquake wave
                    umax =      .000: used-max of earthquake wave
                                       if umax=0.0 then umax=original max of wave
data


                    nc   = 1000      : ncode of earthquake wave
                    mc   =    2      : mcode of earthquake wave
                    idir =    2      : input dir. of earthquake wave
                    umax =      .000: used-max of earthquake wave
                                       if umax=0.0 then umax=original max of wave
data


                    nc   = 1000      : ncode of earthquake wave
```

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```
                    mc   =    3     : mcode of earthquake wave
                    idir =    3     : input dir. of earthquake wave
                    umax =      .000: used-max of earthquake wave
                                      if umax=0.0 then umax=original max of wave
data
1================================================================================
================================================
  *** dac3n ***    < ec-21 > check echo of "spl" card

================================================================================
================================================

      --i--  elem-no.  inod-no.  jnod-no.  knod-no.  rigd-no.  mats-no.  kind-no.

          1      8001         5         6         0         0      8001         1
          2      8002         5         6         0         0      8002         2
          3      9101         5      9101         0         0      9101         3
          4      9102         5      9102         0         0      9102         3
          5      9103         5      9103         0         0      9103         3
          6      9104         5      9104         0         0      9104         3
          7      9105         5      9105         0         0      9105         3
1================================================================================
================================================
  *** dac3n ***    < ec-31 > check echo of "bml" card

================================================================================
================================================


          i      ibea    i-join    j-join    k-join   rigd-no   matl-no   sect-no
w(ton)

          1       104       145         5       999      4104        13       104
.000E+00
          2      2104         4       145       999      4504        13       104
.000E+00
          3       103       134         4       999      3103        13       103
.000E+00
          4      2103         3       134       999      3503        13       103
.000E+00
          5       102       123         3       999      2102        13       102
.000E+00
          6      2102         2       123       999      2502        13       102
.000E+00
          7       101         1         2       999      1101         9       101
.000E+00
          8       204       145         5       999      4204        13       204
.000E+00
          9      2204         4       145       999      4604        13       204
.000E+00
         10       203       134         4       999      3203        13       203
.000E+00
         11      2203         3       134       999      3603        13       203
.000E+00
         12       202       123         3       999      2202        13       202
.000E+00
         13      2202         2       123       999      2602        13       202
.000E+00
         14       201         1         2       999      1201         9       201
.000E+00
1================================================================================
================================================
```

CB_Fix_1.txt

*** dac3n *** < ec-2 > check file of "wav" element

```
================================================================================
================================================

  --- i ---     ncode     mcode  <--- titl ----------------------------->
orig-max   orig-dt   nn   use-max      fact

  (    1)        1000         1  MODIFIED H1 COMPONENT
3.011E+02 1.000E-02 2200 3.011E+02 1.000E+00
  (    2)        1000         2  MODIFIED H2 COMPONENT
3.011E+02 1.000E-02 2200 3.011E+02 1.000E+00
  (    3)        1000         3  MODIFIED VT COMPONENT
3.011E+02 1.000E-02 2200 3.011E+02 1.000E+00
1===============================================================================
================================================
  *** dac3n ***    < i-34 > check echo of "mstp,mmdl,menr"

================================================================================
================================================


 *** mstp card ***

                    lanm =    2     : flag of m-step
                                    0,1=not exec,2=exec
                    leig =    1     : method of eigen value
                                    0,1= sub-space method
                    meiu =   20     : degree of calculate eigen value
                                    def= 10
                    mtrv =   20     : number of trial vector
                                    def= auto calculated
                    lprm =    2     : print level for m-step (def=2)
                    npr1 =   20     : dof for eigen-vector print
                                    def= 3 , .le.meiu
                    npr2 =   20     : dof for eigen-value  print
                                    def=50 , .le.meiu
                    tole = 1.000E-06: eror of eigen value analysis
                                    def= 1.0e-6
                    emin =  .000E+00: limit of minimum frequency (hz)
                    emax = 2.000E+02: limit of maximum frequency (hz)


 *** mmdl card ***

                    lmdl =    1     : flag of modal damping
                                    1=not  2=consider
                    mmdl =    0     : degree of modal  damping
                                    def=meiu


 *** menr card ***

                    lenr =    2     : flag of energy damping
                                    1=not  2=consider
                    menr =   20     : degree of energy damping
                                    def=meiu
1===============================================================================
================================================
  *** dac3n ***    < p-1 > information of array size
```

CB_Fix_1.txt

```
================================================================================
================================================

                present size of array for x-step    :  10000000

                necessary size of array for x-step  :     20154

                           end of structure array   :     11682

                           end of d-step array      :     20154

                           end of m-step array      :     19056

1===============================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.

================================================================================
================================================

            (  1) joielm
                  (   1)  mjoi =         15 :number of joielm
                  (   2)  mfre =         49 :degree of freedom to calculate
                  (   3)  jfre =         49 :degree of freedom before condense
                  (   4)  mlnk =          0 :number of lnk card
            (  2) wavelm
                  (   1)  mwav =          3 :number of wavelm
                  (   2)  mstp =       2200 :number of analysis step
            (  3) vbrelm
                  (   1)  mvbr =          0 :number of vbrelm
                  (   2)  mwav =          0 :number of load wave
            (  4) up1elm
                  (   1)  mjjj =          0 :number of up1elm
            (  5) uphelm
                  (   1)  mjjj =          0 :number of uphelm
            (  6) gumelm
                  (   1)  mjjj =          0 :number of gumelm
            (  7) uptelm
                  (   1)  mjjj =          0 :number of uptelm
            ( 11) dslelm
                  (   1)  mdsp =          0 :number of dslelm
            ( 13) dseelm
                  (   1)  mdsp =          0 :number of dseelm
```

```
( 14) dskelm
      (   1)  mdsp =          0 :number of dskelm

( 21) splelm
      (   1)  mspr =          7 :number of splelm

( 22) spnelm
      (   1)  mspr =          0 :number of spnelm

( 23) speelm
      (   1)  mspr =          0 :number of speelm

( 25) spbelm
      (   1)  mspb =          0 :number of spbelm
      (   2)  mhst =          0 :number of hysteresis data
      (   3)  mdmp =          1 :number of damping    data + 1

( 26) spdelm
      (   1)  mspd =          0 :number of spdelm
      (   2)  mhst =          0 :number of hysteresis data
      (   3)  mdmp =          1 :number of damping    data + 1

( 27) sptelm
      (   1)  mspt =          0 :number of sptelm
      (   2)  mhst =          0 :number of hysteresis data
      (   3)  mdmp =          1 :number of damping    data + 1

( 28) trselm
      (   1)  mtrs =          0 :number of trselm
      (   2)  mtrm =          0 :number of material table data
1================================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.

================================================================================
================================================

( 31) bmlelm
      (   1)  mbea =         14 :number of bmlelm

( 32) bmnelm
      (   1)  mbea =          0 :number of bmnelm

( 34) bmkelm
      (   1)  mbmk =          0 :number of "bmk " card
      (   2)  mbmt =          1 :number of "bmkt" card + 1
      (   3)  mbmh =          1 :number of "bmkh" card + 1
      (   4)  mbmr =          1 :number of "bmkr" card + 1
      (   5)  mhys =          0 :number of non-linear hyst. index
```

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```
( 36) clkelm
      (   1)  mclk =          0 :number of "clk " card
      (   2)  mclt =          1 :number of "clkt" card + 1
      (   3)  mclh =          1 :number of "clkh" card + 1
      (   4)  mclr =          1 :number of "clkr" card + 1
      (   5)  mhys =          0 :number of uniaxial non-linear hyst.
      (   6)  mhyb =          0 :number of biaxial  non-linear hyst.
( 37) clkelm
( 43) grnelm
      (   1)  mmat =          0 :number of matelm
      (   2)  ngrn =          0 :number of freedom
      (   3)  mgrn =          0 :number of time skip
      (   4)  lgrn =          0 :number of operation in convolution
      (   5)  igrn =          0 :ngrn * (ngrn+1)/2
      (   6)  jgrn =          0 :mgrn * lgrn
( 44) grnelm
( 51) recelm
      (   1)  mrec =          0 :number of recelm
      (   2)  nrev =         50 :number of reverse point
      (   3)  iswc =          0 :flag of switch
      (   4)  iswc =          0 :flag of g0 & g0x
      (   5)  mrei =          0 :number of "reci " card
      (   6)  mrep =          0 :number of "recp " card
      (   7)  mref =          0 :number of "recf " card
      (   8)  mreg =          0 :number of "recg " card
      (   9)  mreg =          0 :number of "recd " card
( 52) recelm
( 53) recelm
( 61) matelm
      (   1)  mmat =          0 :number of matelm
      (   2)  mjdt =          0 :array size of "jdt"
      (   3)  mrdt =          0 :array size of "rdt"
( 62) mt2elm
      (   1)  mmat =          0 :number of mt2elm
      (   2)  mjdt =          0 :array size of "jdt"
( 65) vecelm
      (   1)  mkos =          0 :number of vecelm
```

CB_Fix_1.txt

```
                    (   2)  mjdt =          0 :array size of "jdt"
1================================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.

================================================================================
================================================

               ( 71) wlkelm
                     (   1)  mwlk =          0 :number of wlkelm
                     (   2)  mwlm =          0 :number of "wlkm" card
                     (   3)  mwld =          1 :number of "wlkd" card + 1
               ( 72) wnkelm
                     (   1)  mwnk =          0 :number of "wnk " card
                     (   2)  mwnm =          0 :number of "wnkm" card
                     (   3)  mwnd =          1 :number of "wnkd" card + 1
                     (   4)  mwnt =          0 :number of "wnkt" card
                     (   5)  mwws =          0 :number of "wnws" card
                     (   6)  mwwb =          0 :number of "wnwb" card
                     (   7)  mwwa =          0 :number of "wnwa" card
                     (   8)  mwlc =          0 :number of "wnlc" card
                     (   9)  mwrc =          0 :number of "wnrc" card
               ( 73) wnkelm
                     (   2)  mwnh =          0 :number of non-linear hyst. ( =
5*mwnk )
               ( 74) wnkelm
               ( 81) cnkelm
                     (   1)  mcnk =          0 :number of "cnk " card
                     (   2)  mcnt =          1 :number of "cnkt" card + 1
                     (   3)  mcnh =          1 :number of "cnkh" card + 1
                     (   4)  mcnr =          1 :number of "cnkr" card + 1
                     (   5)  mcnc =          0 :number of "cnkc" card
                     (   6)  mcns =          0 :number of "cnks" card
                     (   7)  mcnq =          0 :number of "cnkq" card
                     (   8)  mcnw =          1 :number of "cnkw" card + 1
                     (   9)  mcnd =          1 :number of "cnkd" card + 1
               ( 82) cnkelm
                     (   2)  mhys =          0 :number of uniaxial non-linear hyst.
                     (   3)  mhyb =          0 :number of  biaxial non-linear hyst.
```

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```
( 83) cnkelm
( 84) bnkelm
      (   1)  mbnk =          0 :number of "bnk " card
      (   2)  mbnc =          0 :number of "bnkc" card
      (   3)  mbns =          0 :number of "bnks" card
      (   4)  mbnq =          0 :number of "bnkq" card
      (   5)  mbnw =          1 :number of "bnkw" card + 1
      (   6)  mbnr =          1 :number of "bnkr" card + 1
      (   7)  mbnd =          1 :number of "bnkd" card + 1
      (   8)  mhys =          0 :number of non-linear hyst. index
( 85) bnkelm
( 86) bckelm
      (   1)  mbck =          0 :number of "bck " card
      (   2)  mbcc =          0 :number of "bckc" card
      (   3)  mbcs =          0 :number of "bcks" card
      (   4)  mbcq =          0 :number of "bckq" card
      (   5)  mbcw =          1 :number of "bckw" card + 1
      (   6)  mbcr =          1 :number of "bckr" card + 1
      (   7)  mbcd =          1 :number of "bckd" card + 1
      (   8)  mhys =          0 :number of non-linear hyst. index
1================================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.

================================================================================
================================================

( 87) bckelm
(112) spielm
      (   1)  mspi =          0 :number of spielm
      (   2)  msph =          0 :number of spielm
(113) fr2elm
      (   1)  mfrc =          0 :number of fr2elm
      (   2)  mfrh =          0 :number of "fr2h " card
(115) sp2elm
      (   1)  msp2 =          0 :number of sp2elm
      (   2)  msph =          0 :number of sp2elm
(116) sp3elm
      (   1)  msp3 =          0 :number of sp3elm
```

```
                ( 2)  msph =          0 :number of sp3elm

            (124) bmselm
                ( 1)  mbms =          0 :number of "bms " card

                ( 2)  mbmt =          1 :number of "bmst" card + 1

                ( 3)  mbmh =          1 :number of "bmsh" card + 1

                ( 4)  mbmr =          1 :number of "bmsr" card + 1

                ( 5)  mhys =          0 :number of non-linear hyst. index

            (141) msselm
                ( 1)  mmss =          0 :number of msselm

            (142) penelm
                ( 1)  mmmm =          0 :number of penelm

            (143) msmelm
                ( 1)  mmsm =          0 :number of "msm " card

                ( 2)  mmsr =          1 :number of "msmr" card + 1

                ( 3)  mssf =          1 :number of "msct" card + 1

                ( 4)  mmsh =          1 :number of "msmh" card + 1

                ( 5)  mmal =          1 :number of "alen" card + 1

            (144) ex1elm
                ( 1)  mspr =          0 :number of ex1elm

            (145) v95elm
                ( 1)  mmmm =          0 :number of element

                ( 2)  mjjj =          8 :size of jjj array

                ( 3)  mrrr =         10 :size of rrr array

            (199) engelm
                ( 1)  meng =          0 :number of engelm
1==========================================================================================
==============================================
  *** dac3n ***    < m-m > information of m-matrix diagnoal

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==============================================

 ( 9101)       fixed       fixed  7.607E-01       fixed       fixed       fixed
 ( 9102)       fixed       fixed  2.602E-01       fixed       fixed       fixed
 ( 9103)       fixed       fixed  3.531E-02       fixed       fixed       fixed
 ( 9104)       fixed       fixed  7.082E-02       fixed       fixed       fixed
 ( 9105)       fixed       fixed  4.031E-02       fixed       fixed       fixed
 (    6)  1.173E+00  1.173E+00       fixed       fixed       fixed       fixed
 (    5)  2.296E+00  2.296E+00  2.302E+00  1.985E+06  3.150E+06  5.121E+06
 (  145)  6.327E-01  6.327E-01  6.327E-01  1.020E-06  1.020E-06  1.020E-06
 (    4)  2.765E+00  2.765E+00  2.765E+00  2.314E+06  3.551E+06  6.324E+06
 (  134)  1.163E+00  1.163E+00  1.163E+00  1.020E-06  1.020E-06  1.020E-06
 (    3)  2.411E+00  2.411E+00  2.411E+00  2.301E+06  3.412E+06  6.157E+06
 (  123)  9.736E-01  9.736E-01  9.736E-01  1.020E-06  1.020E-06  1.020E-06
 (    2)  3.677E+00  3.677E+00  3.677E+00  2.261E+06  3.463E+06  5.641E+06
```

```
 (  999)       fixed       fixed       fixed       fixed       fixed       fixed
 (    1)       fixed       fixed       fixed       fixed       fixed       fixed
  ---------------------------------
  total mass
  ---------------------------------
              x           y           z          rx          ry          rz
      1.509E+01   1.509E+01   1.509E+01   8.861E+06   1.358E+07   2.324E+07

1================================================================================
================================================
  *** dac3n ***     < m-k > information of k-matrix diagnoal

================================================================================
================================================

 ( 9101)       fixed       fixed   3.035E+03       fixed       fixed       fixed
 ( 9102)       fixed       fixed   2.259E+03       fixed       fixed       fixed
 ( 9103)       fixed       fixed   6.030E+02       fixed       fixed       fixed
 ( 9104)       fixed       fixed   2.073E+03       fixed       fixed       fixed
 ( 9105)       fixed       fixed   1.632E+03       fixed       fixed       fixed
 (    6)   8.760E+04   5.730E+04       fixed       fixed       fixed       fixed
 (    5)   3.013E+05   2.269E+05   8.928E+05   4.202E+11   7.497E+11   6.570E+11
 (  145)   4.275E+05   3.391E+05   1.766E+06   8.420E+11   1.501E+12   1.315E+12
 (    4)   4.084E+05   3.220E+05   1.679E+06   8.588E+11   1.528E+12   1.243E+12
 (  134)   3.893E+05   3.049E+05   1.592E+06   8.760E+11   1.555E+12   1.172E+12
 (    3)   4.372E+05   4.246E+05   1.963E+06   1.434E+12   1.752E+12   1.305E+12
 (  123)   4.852E+05   5.442E+05   2.334E+06   1.990E+12   1.947E+12   1.436E+12
 (    2)   2.828E+06   2.851E+06   7.273E+06   3.968E+12   5.672E+12   4.265E+12
 (  999)       fixed       fixed       fixed       fixed       fixed       fixed
 (    1)       fixed       fixed       fixed       fixed       fixed       fixed
1================================================================================
================================================
  *** dac3n ***     < m-1 > information of subspace method

================================================================================
================================================


 *** control parameter ***

                    mfre =   49     : number of equations
                    meiu =   20     : number of eigen value to be calculated : user
input
                    meig =   20     : number of eigen value to be calculated : use
in program
                    mall =   49     : number of pogitive in diagonal term of
m-matrix
                    mtrv =   20     : number of trial vectors
                    mbnd =    9     : band width of matrix
                    msht =   65     : max number of shift loop
                    mite =    2     : parameter of iteration loop
                    mit3 =    6     : max number of iteration loop
                    emin =  .000E+00: limit of minimum frequency (hz)
                    emax = 2.000E+02: limit of maximum frequency (hz)
                    tole = 1.000E-06: max tolerance of eror ratio



  *** normal end of eigenvalue analysis
```

CB_Fix_1.txt

```
                    number of eigenvalues  =    24
                    number of shifts       =     9
                    number of iterations   =    17
1=============================================================================================
=============================================
  *** dac3n ***     < m-4 > frequency,period,partcipat. fact

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  mode <--frequency-> <-- period -->      <-----------------------------
participation  factor  ---------------------------------->
           (hz)            (sec)            ( x dir. )    ( y dir. )    ( z dir.
)    ( x rot. )    ( y rot. )    ( z rot. )


     1  9.9374670E+00  1.0062926E-01       2.8612359E-02  7.3021121E-02
1.2013126E+00 -1.4046084E+01  1.0537216E+01 -9.0339224E-01
     2  1.0275366E+01  9.7320133E-02       1.8079361E-01  1.2860538E+00
2.8567831E-05 -1.8675904E+02  4.2911910E+01 -2.2628963E+01
     3  1.0887186E+01  9.1851101E-02       1.2483802E+00 -1.7820631E-01
2.9670447E-03  2.1007743E+01  2.4802274E+02  2.8019400E+01
     4  1.4686153E+01  6.8091351E-02      -1.6313716E-02 -1.5908713E-02
1.4257716E+00 -8.9381403E+00  1.1205265E+01  2.3680160E-01
     5  1.6669777E+01  5.9988806E-02       3.2982042E-04 -4.0305878E-04
-4.6854854E-06  2.5260241E-01  3.3060272E-01 -4.4430086E+01
     6  2.0716753E+01  4.8270113E-02      -4.2708088E-02 -4.4044003E-02
2.4111923E+00 -6.4325578E+01  8.4646528E+01 -2.5655036E-01
     7  2.5664554E+01  3.8964246E-02      -9.4499672E-01 -6.0588348E-01
1.1550012E+00 -1.0088582E+03  2.4132806E+03  1.9797729E+01
     8  2.6243514E+01  3.8104653E-02       1.2866392E+00  3.6521564E-01
4.3829732E+00  5.8712746E+02 -3.2917368E+03 -4.1806378E+01
     9  2.6949004E+01  3.7107123E-02      -2.2095282E-01  4.7914510E-01
3.3102810E-02  7.1330264E+02  5.6555573E+02  2.0855921E+01
    10  2.9115915E+01  3.4345478E-02      -1.3345324E-01 -2.6793433E-01
-4.4186171E+00 -1.9373666E+02  2.8565922E+02  2.0223820E+00
    11  3.2063529E+01  3.1188083E-02      -1.4091736E-01 -5.2496010E-01
-1.6065882E-02  1.3182353E+03 -1.7689377E+01  2.0544678E+01
    12  3.2550199E+01  3.0721778E-02       3.0226651E-02  3.7702846E-01
-4.1158621E+00 -1.3424388E+03  1.1882278E+02 -1.7437066E+01
    13  3.4563596E+01  2.8932175E-02      -3.8981726E-01  1.6093870E-02
2.1084511E-02 -9.5951184E+01 -6.5608581E+02  2.1859048E+00
    14  4.4325381E+01  2.2560438E-02       1.9439374E-02  3.7183182E-01
-3.0647041E-03 -1.7203567E+02 -1.3810374E+01 -7.6762292E+01
    15  4.6755745E+01  2.1387746E-02       3.0694140E-03  7.6329691E-03
-7.1376845E-05 -3.1611226E+00  3.5042073E-02  7.7292807E+01
    16  4.9643612E+01  2.0143579E-02       3.0100545E-01  5.3181191E-03
-2.4351924E-03  2.8904432E+01  8.8188810E+01 -5.0616140E+01
    17  5.3144765E+01  1.8816529E-02      -8.0266442E-03  1.8479338E-01
-7.8295680E-05  1.0821117E+02 -1.0295197E+01 -2.0917348E+01
    18  6.1040439E+01  1.6382582E-02      -1.0967366E-01  6.7662421E-03
6.4493802E-03 -8.3486747E+00  1.7216868E+02 -3.3238273E+01
    19  6.4695829E+01  1.5456947E-02       1.9864223E-03 -1.4051565E-03
-1.6072829E-04 -8.4354525E-01 -3.0424065E+00 -2.3089661E+01
    20  6.8158644E+01  1.4671653E-02      -1.7837637E-04  2.1893313E-03
-1.2593567E-02  5.5539244E+01 -7.0517577E+01  7.7928735E-01

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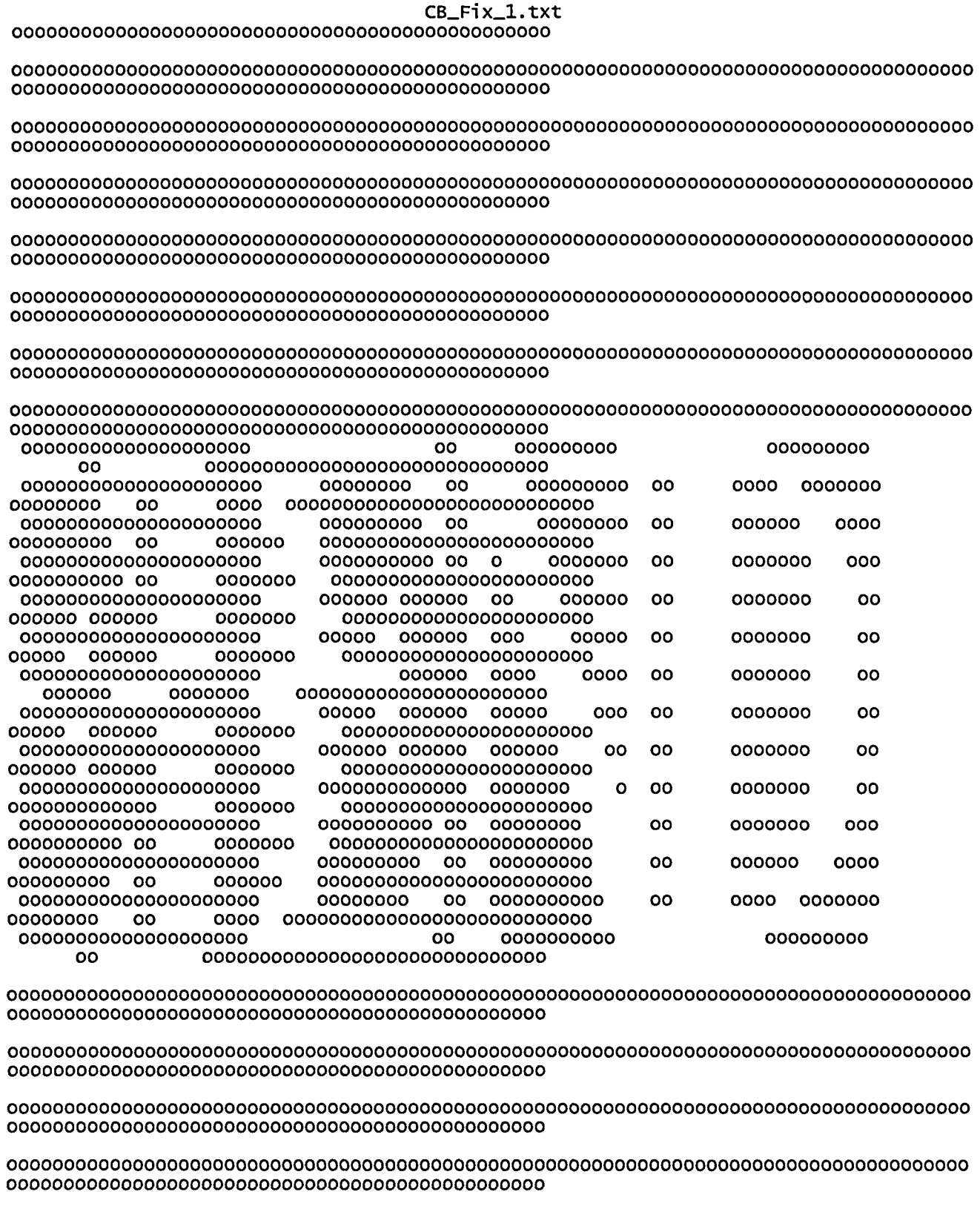
CB_Fix_1.txt

CB_Fix_1.txt



CB_Fix_1.txt

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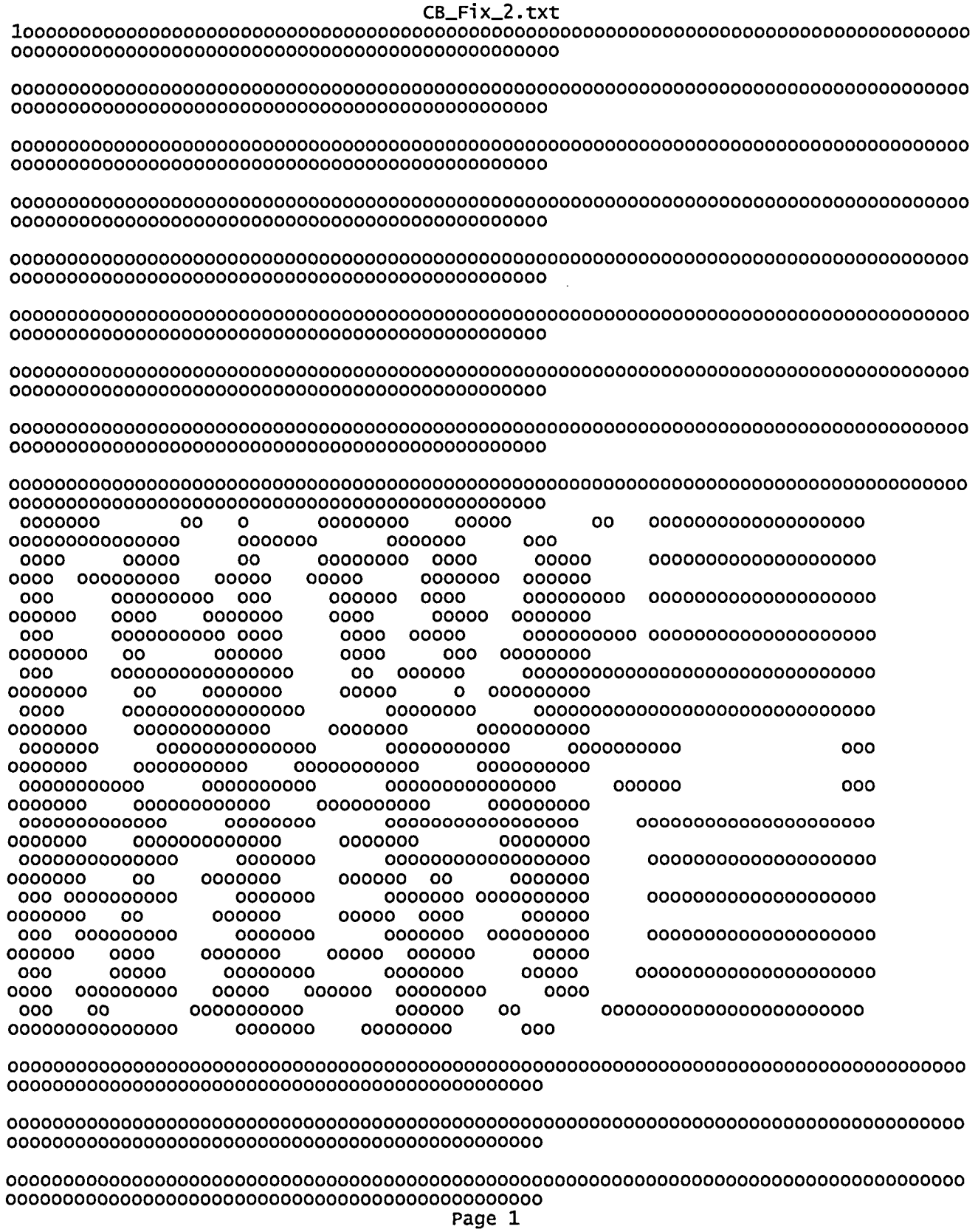
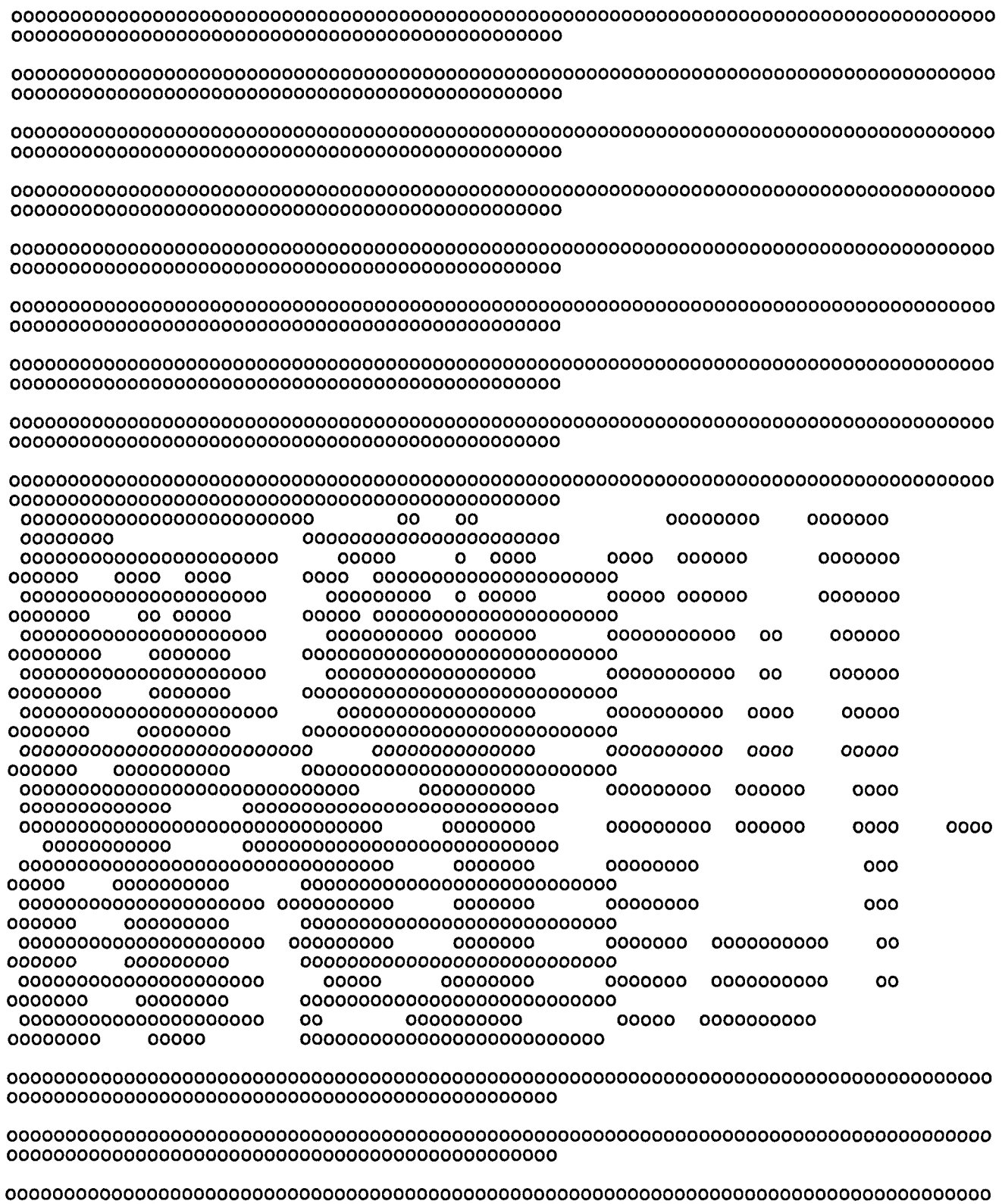
CB_Fix_2.txt



CB_Fix_2.txt



CB_Fix_2.txt

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1==========================================================================================
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  *** dac3n ***       < g-2 > inpt data echo

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         ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
         titl  esbwr cb dynamic analysis -medium- (disp mdv1=5)

               njob lcpu lchk lprn
         istp  1000 1000    1    2
               leig meiu mtrv lprn npr1 npr2          tole      emin      emax
          mstp     1   30  100    2   30   30                              500.0
         mstp     1   20  100    2   25   25                             200.0
         menr
               mstp mdv1 mdv2 lprn                    dlta      alfa      beta
          dstp  3700    5    1    2                   0.005

               lite nite nktm nkit lcnv lstu lstp
         iter     1   10    1   10  110         1
                        epsd      epsf      epse      emsd      emsf      emse
         ite2         1.0e-08   1.0e-06   1.0e-12   1.0e-08   1.0e-04   1.0e-12
               ncod mcod idir      xmax
          wav   9000    1    1       0.0
          wav   9000    2    2       0.0
          wav   9000    3    3       0.0

               key1 key2 key3 inum
         outr
         ewav   joi  acc
         ewav   joi  dis
         ewav   spl
         ewav   dsl

               inum    xyzxyz   x-coord   y-coord   z-coord ray-damp1 ray-damp2
          joi   9101    ff fff         0         0   9.06e+2
          joi   9102    ff fff         0         0   9.06e+2
                                  Page 3
```

```
                                CB_Fix_2.txt
 joi   9103    ff fff          0          0   9.06e+2
 joi   9104    ff fff          0          0   9.06e+2
 joi   9105    ff fff          0          0   9.06e+2

spl   8001    5    6           8001    1
spl   8002    5    6           8002    2
 spl   8003    5    6           8002    3
      imat      rstf                hdm1       hdm2       henr
smat  8001 8.760e+04                -1.0       -1.0       0.07
smat  8002 5.730e+04                -1.0       -1.0       0.07
 smat  8003   1.0e+10                 -1.0       -1.0       0.07

joi      6      ffff 14.618e+2 11.321e+2   13.5e+2
joi      5           14.618e+2 11.321e+2   9.06e+2
joi    145           14.529e+2 11.119e+2  6.855e+2
joi      4           14.529e+2 11.119e+2   4.65e+2
joi    134           14.497e+2 11.087e+2  1.325e+2
joi      3           14.497e+2 11.087e+2   -2.0e+2
joi    123           14.637e+2 11.289e+2 -4.700e+2
joi      2           14.637e+2 11.289e+2   -7.4e+2
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
```

continue to next page

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1================================================================================
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  *** dac3n ***      < g-2 > inpt data echo

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================================================

----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
 joi    112           14.563e+2 11.215e+2 -8.900e+2
joi      1    ffffff 14.563e+2 11.215e+2  -10.4e+2
joi    999    ffffff   10000.0       0.0       0.0

              x-weight  y-weight  z-weight x-inertia y-inertia z-inertia
wei      6    1150.0    1150.0       0.0      0.01      0.01      0.01
wei      5    2250.0    2250.0    3400.0  19.45e+8  30.87e+8  50.19e+8
wei      4    2710.0    2710.0    2710.0  22.68e+8  34.80e+8  61.98e+8
wei      3    2363.0    2363.0    2363.0  22.55e+8  33.44e+8  60.34e+8
wei      2    3603.0    3603.0    3603.0  22.16e+8  33.94e+8  55.28e+8
wei      1    2850.0    2850.0    2850.0  13.70e+8  22.05e+8  35.31e+8
wei    999   0.00001                      0.00001   0.00001   0.00001
 wei   9101         0         0     745.5         0         0         0
 wei   9102         0         0     255.0         0         0         0
 wei   9103         0         0      34.6         0         0         0
 wei   9104         0         0      69.4         0         0         0
 wei   9105         0         0      39.5         0         0         0

wei    145     620.0     620.0     620.0     0.001     0.001     0.001
wei    134    1140.0    1140.0    1140.0     0.001     0.001     0.001
wei    123     954.1     954.1     954.1     0.001     0.001     0.001
 wei    112    2850.0    2850.0    2850.0     0.001     0.001     0.001

      inum inod jnod knod irgd imat isct
 bml    104    4    5  999 4104   13  104
 bml    103    3    4  999 3103   13  103
 bml    102    2    3  999 2102   13  102
 bml    101    1    2  999 1101    9  101
 bml    204    4    5  999 4204   13  204
 bml    203    3    4  999 3203   13  203
 bml    202    2    3  999 2202   13  202
 bml    201    1    2  999 1201   13  201
 shear elem
```

CB_Fix_2.txt

```
          bml    104  145    5  999 4104   13  104
          bml   2104    4  145  999 4504   13  104
          bml    103  134    4  999 3103   13  103
          bml   2103    3  134  999 3503   13  103
          bml    102  123    3  999 2102   13  102
          bml   2102    2  123  999 2502   13  102
          bml    101    1    2  999 1101    9  101
           bml   2101    1  112  999 1501    9  101
           axial elem
          bml    204  145    5  999 4204   13  204
          bml   2204    4  145  999 4604   13  204
          bml    203  134    4  999 3203   13  203
          bml   2203    3  134  999 3603   13  203
          bml    202  123    3  999 2202   13  202
          bml   2202    2  123  999 2602   13  202
          bml    201    1    2  999 1201    9  201
           bml   2201    1  112  999 1601    9  201
          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
continue to next page
1================================================================================
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  *** dac3n ***      < g-2 > inpt data echo

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          ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--

               inum inod jnod knod irgd imat iknd
           spl   9101    5 9101           9101    3
           spl   9102    5 9102           9102    3
           spl   9103    5 9103           9103    3
           spl   9104    5 9104           9104    3
           spl   9105    5 9105           9105    3

             rigid link
                imat        xi        yi        zi        xj        yj        zj
           shear elem
          rigd  4104      61.1      33.1       0.0      52.2      12.9       0.0
          rigd  4504      61.1      33.1       0.0      61.1      33.1       0.0
          rigd  3103      44.1      41.8       0.0      40.9      38.6       0.0
          rigd  3503      44.1      41.8       0.0      44.1      41.8       0.0
          rigd  2102      17.7      16.1       0.0      31.7      36.3       0.0
          rigd  2502      17.7      16.1       0.0      17.7      16.1       0.0
          rigd  1101      13.7      23.5       0.0       6.3      16.1       0.0
          rigd  1501      13.7      23.5       0.0      13.7      23.5       0.0
           axial elem
          rigd  4204      36.5      33.1       0.0      27.6      12.9       0.0
          rigd  4604      36.5      33.1       0.0      36.5      33.1       0.0
          rigd  3203      30.7      39.4       0.0      27.5      36.2       0.0
          rigd  3603      30.7      39.4       0.0      30.7      39.4       0.0
          rigd  2202      12.3      16.1       0.0      26.3      36.3       0.0
          rigd  2602      12.3      16.1       0.0      12.3      16.1       0.0
          rigd  1201      13.7      23.5       0.0       6.3      16.1       0.0
          rigd  1601      13.7      23.5       0.0      13.7      23.5       0.0

               isct        sa        sb        sc        ja        ib        ic
          bsct  104    0.0001   39.47e4   31.06e4 120.63e10  31.98e10  58.43e10
          bsct  103    0.0001   54.28e4   42.16e4 162.24e10  49.90e10  91.06e10
          bsct  102    0.0001   54.54e4   61.45e4 161.49e10  94.13e10  92.09e10
          bsct  101    0.0001  721.14e4  721.14e4 985.06e10 340.40e10 551.73e10
          bsct  204   68.57e4    0.0001    0.0001    0.0001    0.0001    0.0001
          bsct  203   93.20e4    0.0001    0.0001    0.0001    0.0001    0.0001
```

```
                                CB_Fix_2.txt
        bsct   202  110.95e4    0.0001    0.0001    0.0001    0.0001    0.0001
        bsct   201  721.14e4    0.0001    0.0001    0.0001    0.0001    0.0001

              imat        gg        ee      hdm1      hdm2      henr
        bmat    13    1.20e2    2.84e2      -1.0      -1.0      0.07
        bmat     9    1.08e2    2.54e2      -1.0      -1.0      0.07
              imat      rstf                hdm1      hdm2      henr
         smat  9101   3.035e3                -1.0      -1.0      0.07
         smat  9102   2.259e3                -1.0      -1.0      0.07
         smat  9103   6.030e2                -1.0      -1.0      0.07
         smat  9104   2.073e3                -1.0      -1.0      0.07
         smat  9105   1.632e3                -1.0      -1.0      0.07
        ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
end of input data .
1================================================================================
================================================
  *** dac3n ***    < i-1 > check echo of "titl" "istp" card

================================================================================
================================================


 *** titls ***

                    esbwr cb dynamic analysis -medium- (disp mdv1=5)


                       hlinix    huplOx    hbilix    hntrix    hmultx
                       htkd1x    hdtrmx    hgenkx    hbifrx    hgentx
                       hgnpkx    hdtrix    hdtr2x    hfuncx    hrmbgx
                       hdtrfx    hbrgkx    habltx    hlrb3x    hlrbkx
                       hgfv3x    hslipx    hinadx    hpeakx    huprtx
                       hupkvx    hupvrx    hmsmcx    hmsncx

                      1joijoi   2wavnon   3vbrnon  11dslspl  21splspl
                     22spnspl  28trsspl  31bmlspl  32bmnspl   4up1non
                      5uphnon   6gumnon   7uptnon  13dsespl  14dskspl
                     23spespl  25spbspl  26spdspl  27sptspl  34bmkspl
                     36clkspl  43grnnon  51recrec  61matnon  62mt2non
                     65vecnon  71wlkwlk  72wnkwlk  81cnkspl  84bnkspl
                     86bcksp1 112spispl 113fr2spl 115sp2spl 116sp3spl
                    124bmsspl 199engnon 141msspl 142penspl 143msmspl
                    144ex1spl 145v95spl



*** istp card ***

                    njob = 1000      : n-code of job
                                     def= 10000
                    ncpu = 1000      : cpu time limit (sec) ( not use )
                                     def= 1000
                    lchk =    1      : calculation level
                                     0,1= to data
                                       2= check only
                    lprn =    2      : print level for i-step (def=2)
                    lket =    5      : keta-suu of printout
                                       5= normal
                                       7= 7-keta
                                       9= 9-keta
                                       Page 6
```

CB_Fix_2.txt

*** dac3n *** < i-11 > check echo of "rigd" card

i	irgd	x-cod(i)	y-cod(i)	z-cod(i)	x-cod(j)	y-cod(j)	z-cod(j)
1	4104	6.110E+01	3.310E+01	.000E+00	5.220E+01	1.290E+01	.000E+00
2	4504	6.110E+01	3.310E+01	.000E+00	6.110E+01	3.310E+01	.000E+00
3	3103	4.410E+01	4.180E+01	.000E+00	4.090E+01	3.860E+01	.000E+00
4	3503	4.410E+01	4.180E+01	.000E+00	4.410E+01	4.180E+01	.000E+00
5	2102	1.770E+01	1.610E+01	.000E+00	3.170E+01	3.630E+01	.000E+00
6	2502	1.770E+01	1.610E+01	.000E+00	1.770E+01	1.610E+01	.000E+00
7	1101	1.370E+01	2.350E+01	.000E+00	6.300E+00	1.610E+01	.000E+00
8	1501	1.370E+01	2.350E+01	.000E+00	1.370E+01	2.350E+01	.000E+00
9	4204	3.650E+01	3.310E+01	.000E+00	2.760E+01	1.290E+01	.000E+00
10	4604	3.650E+01	3.310E+01	.000E+00	3.650E+01	3.310E+01	.000E+00
11	3203	3.070E+01	3.940E+01	.000E+00	2.750E+01	3.620E+01	.000E+00
12	3603	3.070E+01	3.940E+01	.000E+00	3.070E+01	3.940E+01	.000E+00
13	2202	1.230E+01	1.610E+01	.000E+00	2.630E+01	3.630E+01	.000E+00
14	2602	1.230E+01	1.610E+01	.000E+00	1.230E+01	1.610E+01	.000E+00
15	1201	1.370E+01	2.350E+01	.000E+00	6.300E+00	1.610E+01	.000E+00
16	1601	1.370E+01	2.350E+01	.000E+00	1.370E+01	2.350E+01	.000E+00

*** dac3n *** < i-16 > check echo of "smat" card

i	imts	stiffness	ray-damp1	ray-damp2	enrg-damp
1	8001	8.760E+04	-1.000E+00	-1.000E+00	7.000E-02
2	8002	5.730E+04	-1.000E+00	-1.000E+00	7.000E-02

*** dac3n *** < i-12 > check echo of "bmat" card

i	imat	gg	ee	ray-damp1	ray-damp2	enrg-damp
1	13	1.200E+02	2.840E+02	-1.000E+00	-1.000E+00	7.000E-02
2	9	1.080E+02	2.540E+02	-1.000E+00	-1.000E+00	7.000E-02

*** dac3n *** < i-13 > check echo of "bsct" & "bsctd"

i	isct	sa	sb	sc	ja	ib	ic

CB_Fix_2.txt

```
     1    104    1.000E-04 3.947E+05 3.106E+05 1.206E+12 3.198E+11 5.843E+11
     2    103    1.000E-04 5.428E+05 4.216E+05 1.622E+12 4.990E+11 9.106E+11
     3    102    1.000E-04 5.454E+05 6.145E+05 1.615E+12 9.413E+11 9.209E+11
     4    101    1.000E-04 7.211E+06 7.211E+06 9.851E+12 3.404E+12 5.517E+12
     5    204    6.857E+05 1.000E-04 1.000E-04 1.000E-04 1.000E-04 1.000E-04
     6    203    9.320E+05 1.000E-04 1.000E-04 1.000E-04 1.000E-04 1.000E-04
     7    202    1.110E+06 1.000E-04 1.000E-04 1.000E-04 1.000E-04 1.000E-04
     8    201    7.211E+06 1.000E-04 1.000E-04 1.000E-04 1.000E-04 1.000E-04
1================================================================================
================================================
  *** dac3n ***    < ec-1 > check echo of "joi" card

================================================================================
================================================


     i inod    xyzxyz   x-cod      y-cod      z-cod      hd-1       hd-2       w-x
w-y        w-z        j-x        j-y        j-z

     1    6    110000 1.462E+03 1.132E+03 1.350E+03  .000E+00  .000E+00 1.150E+03
1.150E+03 1.150E+03 1.000E-02 1.000E-02 1.000E-02
     2    5    111111 1.462E+03 1.132E+03 9.060E+02  .000E+00  .000E+00 2.250E+03
2.250E+03 3.400E+03 1.945E+09 3.087E+09 5.019E+09
     3  145    111111 1.453E+03 1.112E+03 6.855E+02  .000E+00  .000E+00 6.200E+02
6.200E+02 6.200E+02 1.000E-03 1.000E-03 1.000E-03
     4    4    111111 1.453E+03 1.112E+03 4.650E+02  .000E+00  .000E+00 2.710E+03
2.710E+03 2.710E+03 2.268E+09 3.480E+09 6.198E+09
     5  134    111111 1.450E+03 1.109E+03 1.325E+02  .000E+00  .000E+00 1.140E+03
1.140E+03 1.140E+03 1.000E-03 1.000E-03 1.000E-03
     6    3    111111 1.450E+03 1.109E+03-2.000E+02  .000E+00  .000E+00 2.363E+03
2.363E+03 2.363E+03 2.255E+09 3.344E+09 6.034E+09
     7  123    111111 1.464E+03 1.129E+03-4.700E+02  .000E+00  .000E+00 9.541E+02
9.541E+02 9.541E+02 1.000E-03 1.000E-03 1.000E-03
     8    2    111111 1.464E+03 1.129E+03-7.400E+02  .000E+00  .000E+00 3.603E+03
3.603E+03 3.603E+03 2.216E+09 3.394E+09 5.528E+09
     9    1    000000 1.456E+03 1.122E+03-1.040E+03  .000E+00  .000E+00 2.850E+03
2.850E+03 2.850E+03 1.370E+09 2.205E+09 3.531E+09
    10  999    000000 1.000E+04  .000E+00  .000E+00  .000E+00  .000E+00 1.000E-05
1.000E-05 1.000E-05 1.000E-05 1.000E-05 1.000E-05
1================================================================================
================================================
  *** dac3n ***    < ec-21 > check echo of "spl" card

================================================================================
================================================

      --i--  elem-no.  inod-no.  jnod-no.  knod-no.  rigd-no.  mats-no.  kind-no.

         1      8001         5         6         0         0      8001         1
         2      8002         5         6         0         0      8002         2
1================================================================================
================================================
  *** dac3n ***    < ec-31 > check echo of "bml" card

================================================================================
================================================


         i      ibea    i-join    j-join    k-join   rigd-no   matl-no   sect-no
w(ton)
```

CB_Fix_2.txt

1	104	145	5	999	4104	13	104 .000E+00
2	2104	4	145	999	4504	13	104 .000E+00
3	103	134	4	999	3103	13	103 .000E+00
4	2103	3	134	999	3503	13	103 .000E+00
5	102	123	3	999	2102	13	102 .000E+00
6	2102	2	123	999	2502	13	102 .000E+00
7	101	1	2	999	1101	9	101 .000E+00
8	204	145	5	999	4204	13	204 .000E+00
9	2204	4	145	999	4604	13	204 .000E+00
10	203	134	4	999	3203	13	203 .000E+00
11	2203	3	134	999	3603	13	203 .000E+00
12	202	123	3	999	2202	13	202 .000E+00
13	2202	2	123	999	2602	13	202 .000E+00
14	201	1	2	999	1201	9	201 .000E+00

1==========

*** dac3n *** < i-34 > check echo of "mstp,mmdl,menr"

==========

*** mstp card ***

```
                    lanm =    2     : flag of m-step
                                    0,1=not exec,2=exec
                    leig =    1     : method of eigen value
                                    0,1= sub-space method
                    meiu =   20     : degree of calculate eigen value
                                    def= 10
                    mtrv =   20     : number of trial vector
                                    def= auto calculated
                    lprm =    2     : print level for m-step (def=2)
                    npr1 =   20     : dof for eigen-vector print
                                    def= 3 , .le.meiu
                    npr2 =   20     : dof for eigen-value  print
                                    def=50 , .le.meiu
                    tole = 1.000E-06: eror of eigen value analysis
                                    def= 1.0e-6
                    emin =  .000E+00: limit of minimum frequency (hz)
                    emax = 2.000E+02: limit of maximum frequency (hz)
```

*** mmdl card ***

```
                    lmdl =    1     : flag of modal damping
                                    1=not  2=consider
```

CB_Fix_2.txt

```
                    mmdl =    0      : degree of modal  damping
                                     def=meiu

 *** menr card ***

                    lenr =    2      : flag of energy damping
                                     1=not  2=consider
                    menr =   20      : degree of energy damping
                                     def=meiu
1================================================================================
================================================
  *** dac3n ***    < p-1 > information of array size

================================================================================
================================================

                    present size of array for x-step    :  10000000

                    necessary size of array for x-step  :     11644

                              end of structure array    :      4436

                              end of d-step array       :     11644

                              end of m-step array       :     10860

1================================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.

================================================================================
================================================

              ( 1) joielm
                   (  1)  mjoi =         10 :number of joielm
                   (  2)  mfre =         44 :degree of freedom to calculate
                   (  3)  jfre =         44 :degree of freedom before condense
                   (  4)  mlnk =          0 :number of lnk card
              ( 2) wavelm
                   (  1)  mwav =          0 :number of wavelm
                   (  2)  mstp =          0 :number of analysis step
              ( 3) vbrelm
                   (  1)  mvbr =          0 :number of vbrelm
                   (  2)  mwav =          0 :number of load wave
              ( 4) up1elm
                   (  1)  mjjj =          0 :number of up1elm
              ( 5) uphelm
```

```
                ( 1)  mjjj =          0 :number of uphelm

          ( 6) gumelm
                ( 1)  mjjj =          0 :number of gumelm

          ( 7) uptelm
                ( 1)  mjjj =          0 :number of uptelm

          ( 11) dslelm
                ( 1)  mdsp =          0 :number of dslelm

          ( 13) dseelm
                ( 1)  mdsp =          0 :number of dseelm

          ( 14) dskelm
                ( 1)  mdsp =          0 :number of dskelm

          ( 21) splelm
                ( 1)  mspr =          2 :number of splelm

          ( 22) spnelm
                ( 1)  mspr =          0 :number of spnelm

          ( 23) speelm
                ( 1)  mspr =          0 :number of speelm

          ( 25) spbelm
                ( 1)  mspb =          0 :number of spbelm

                ( 2)  mhst =          0 :number of hysteresis data

                ( 3)  mdmp =          1 :number of damping    data + 1

          ( 26) spdelm
                ( 1)  mspd =          0 :number of spdelm

                ( 2)  mhst =          0 :number of hysteresis data

                ( 3)  mdmp =          1 :number of damping    data + 1

          ( 27) sptelm
                ( 1)  mspt =          0 :number of sptelm

                ( 2)  mhst =          0 :number of hysteresis data

                ( 3)  mdmp =          1 :number of damping    data + 1

          ( 28) trselm
                ( 1)  mtrs =          0 :number of trselm

                ( 2)  mtrm =          0 :number of material table data
1================================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.

================================================================================
================================================

          ( 31) bmlelm
                ( 1)  mbea =         14 :number of bmlelm

          ( 32) bmnelm
```

```
      (   1)  mbea =          0 :number of bmnelm

( 34) bmkelm
      (   1)  mbmk =          0 :number of "bmk " card

      (   2)  mbmt =          1 :number of "bmkt" card + 1

      (   3)  mbmh =          1 :number of "bmkh" card + 1

      (   4)  mbmr =          1 :number of "bmkr" card + 1

      (   5)  mhys =          0 :number of non-linear hyst. index

( 36) clkelm
      (   1)  mclk =          0 :number of "clk " card

      (   2)  mclt =          1 :number of "clkt" card + 1

      (   3)  mclh =          1 :number of "clkh" card + 1

      (   4)  mclr =          1 :number of "clkr" card + 1

      (   5)  mhys =          0 :number of uniaxial non-linear hyst.

      (   6)  mhyb =          0 :number of biaxial  non-linear hyst.

( 37) clkelm
( 43) grnelm
      (   1)  mmat =          0 :number of matelm

      (   2)  ngrn =          0 :number of freedom

      (   3)  mgrn =          0 :number of time skip

      (   4)  lgrn =          0 :number of operation in convolution

      (   5)  igrn =          0 :ngrn * (ngrn+1)/2

      (   6)  jgrn =          0 :mgrn * lgrn

( 44) grnelm
( 51) recelm
      (   1)  mrec =          0 :number of recelm

      (   2)  nrev =         50 :number of reverse point

      (   3)  iswc =          0 :flag of switch

      (   4)  iswc =          0 :flag of g0 & g0x

      (   5)  mrei =          0 :number of "reci " card

      (   6)  mrep =          0 :number of "recp " card

      (   7)  mref =          0 :number of "recf " card

      (   8)  mreg =          0 :number of "recg " card

      (   9)  mreg =          0 :number of "recd " card

( 52) recelm
( 53) recelm
( 61) matelm
```

CB_Fix_2.txt

```
                (   1)  mmat =          0 :number of matelm
                (   2)  mjdt =          0 :array size of "jdt"
                (   3)  mrdt =          0 :array size of "rdt"
             ( 62) mt2elm
                (   1)  mmat =          0 :number of mt2elm
                (   2)  mjdt =          0 :array size of "jdt"
             ( 65) vecelm
                (   1)  mkos =          0 :number of vecelm
                (   2)  mjdt =          0 :array size of "jdt"
1================================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.
================================================================================
================================================

             ( 71) wlkelm
                (   1)  mwlk =          0 :number of wlkelm
                (   2)  mwlm =          0 :number of "wlkm" card
                (   3)  mwld =          1 :number of "wlkd" card + 1
             ( 72) wnkelm
                (   1)  mwnk =          0 :number of "wnk " card
                (   2)  mwnm =          0 :number of "wnkm" card
                (   3)  mwnd =          1 :number of "wnkd" card + 1
                (   4)  mwnt =          0 :number of "wnkt" card
                (   5)  mwws =          0 :number of "wnws" card
                (   6)  mwwb =          0 :number of "wnwb" card
                (   7)  mwwa =          0 :number of "wnwa" card
                (   8)  mwlc =          0 :number of "wnlc" card
                (   9)  mwrc =          0 :number of "wnrc" card
             ( 73) wnkelm
                (   2)  mwnh =          0 :number of non-linear hyst. ( =
5*mwnk )
             ( 74) wnkelm
             ( 81) cnkelm
                (   1)  mcnk =          0 :number of "cnk " card
                (   2)  mcnt =          1 :number of "cnkt" card + 1
                (   3)  mcnh =          1 :number of "cnkh" card + 1
                (   4)  mcnr =          1 :number of "cnkr" card + 1
                (   5)  mcnc =          0 :number of "cnkc" card
```

CB_Fix_2.txt

```
                    (   6)  mcns =          0 :number of "cnks" card
                    (   7)  mcnq =          0 :number of "cnkq" card
                    (   8)  mcnw =          1 :number of "cnkw" card + 1
                    (   9)  mcnd =          1 :number of "cnkd" card + 1
               ( 82) cnkelm
                    (   2)  mhys =          0 :number of uniaxial non-linear hyst.
                    (   3)  mhyb =          0 :number of  biaxial non-linear hyst.
               ( 83) cnkelm
               ( 84) bnkelm
                    (   1)  mbnk =          0 :number of "bnk " card
                    (   2)  mbnc =          0 :number of "bnkc" card
                    (   3)  mbns =          0 :number of "bnks" card
                    (   4)  mbnq =          0 :number of "bnkq" card
                    (   5)  mbnw =          1 :number of "bnkw" card + 1
                    (   6)  mbnr =          1 :number of "bnkr" card + 1
                    (   7)  mbnd =          1 :number of "bnkd" card + 1
                    (   8)  mhys =          0 :number of non-linear hyst. index
               ( 85) bnkelm
               ( 86) bckelm
                    (   1)  mbck =          0 :number of "bck " card
                    (   2)  mbcc =          0 :number of "bckc" card
                    (   3)  mbcs =          0 :number of "bcks" card
                    (   4)  mbcq =          0 :number of "bckq" card
                    (   5)  mbcw =          1 :number of "bckw" card + 1
                    (   6)  mbcr =          1 :number of "bckr" card + 1
                    (   7)  mbcd =          1 :number of "bckd" card + 1
                    (   8)  mhys =          0 :number of non-linear hyst. index
1================================================================================
================================================
  *** dac3n ***    < p-8 > jel(200,30) parameter for elem.

================================================================================
================================================

               ( 87) bckelm
               (112) spielm
                    (   1)  mspi =          0 :number of spielm
                    (   2)  msph =          0 :number of spielm
```

CB_Fix_2.txt

```
(113) fr2elm
      (   1)  mfrc =          0 :number of fr2elm
      (   2)  mfrh =          0 :number of "fr2h " card
(115) sp2elm
      (   1)  msp2 =          0 :number of sp2elm
      (   2)  msph =          0 :number of sp2elm
(116) sp3elm
      (   1)  msp3 =          0 :number of sp3elm
      (   2)  msph =          0 :number of sp3elm
(124) bmselm
      (   1)  mbms =          0 :number of "bms " card
      (   2)  mbmt =          1 :number of "bmst" card + 1
      (   3)  mbmh =          1 :number of "bmsh" card + 1
      (   4)  mbmr =          1 :number of "bmsr" card + 1
      (   5)  mhys =          0 :number of non-linear hyst. index
(141) msselm
      (   1)  mmss =          0 :number of msselm
(142) penelm
      (   1)  mmmm =          0 :number of penelm
(143) msmelm
      (   1)  mmsm =          0 :number of "msm " card
      (   2)  mmsr =          1 :number of "msmr" card + 1
      (   3)  mssf =          1 :number of "msct" card + 1
      (   4)  mmsh =          1 :number of "msmh" card + 1
      (   5)  mmal =          1 :number of "alen" card + 1
(144) ex1elm
      (   1)  mspr =          0 :number of ex1elm
(145) v95elm
      (   1)  mmmm =          0 :number of element
      (   2)  mjjj =          8 :size of jjj array
      (   3)  mrrr =         10 :size of rrr array
(199) engelm
      (   1)  meng =          0 :number of engelm
1================================================================================
================================================
  *** dac3n ***    < m-m > information of m-matrix diagnoal

================================================================================
================================================
```

CB_Fix_2.txt

(6)	1.173E+00	1.173E+00	fixed	fixed	fixed	fixed
(5)	2.296E+00	2.296E+00	3.469E+00	1.985E+06	3.150E+06	5.121E+06
(145)	6.327E-01	6.327E-01	6.327E-01	1.020E-06	1.020E-06	1.020E-06
(4)	2.765E+00	2.765E+00	2.765E+00	2.314E+06	3.551E+06	6.324E+06
(134)	1.163E+00	1.163E+00	1.163E+00	1.020E-06	1.020E-06	1.020E-06
(3)	2.411E+00	2.411E+00	2.411E+00	2.301E+06	3.412E+06	6.157E+06
(123)	9.736E-01	9.736E-01	9.736E-01	1.020E-06	1.020E-06	1.020E-06
(2)	3.677E+00	3.677E+00	3.677E+00	2.261E+06	3.463E+06	5.641E+06
(1)	fixed	fixed	fixed	fixed	fixed	fixed
(999)	fixed	fixed	fixed	fixed	fixed	fixed

total mass

x	y	z	rx	ry	rz
1.509E+01	1.509E+01	1.509E+01	8.861E+06	1.358E+07	2.324E+07

*** dac3n *** < m-k > information of k-matrix diagnoal

(6)	8.760E+04	5.730E+04	fixed	fixed	fixed	fixed
(5)	3.013E+05	2.269E+05	8.832E+05	4.202E+11	7.497E+11	6.570E+11
(145)	4.275E+05	3.391E+05	1.766E+06	8.420E+11	1.501E+12	1.315E+12
(4)	4.084E+05	3.220E+05	1.679E+06	8.588E+11	1.528E+12	1.243E+12
(134)	3.893E+05	3.049E+05	1.592E+06	8.760E+11	1.555E+12	1.172E+12
(3)	4.372E+05	4.246E+05	1.963E+06	1.434E+12	1.752E+12	1.305E+12
(123)	4.852E+05	5.442E+05	2.334E+06	1.990E+12	1.947E+12	1.436E+12
(2)	2.828E+06	2.851E+06	7.273E+06	3.968E+12	5.672E+12	4.265E+12
(1)	fixed	fixed	fixed	fixed	fixed	fixed
(999)	fixed	fixed	fixed	fixed	fixed	fixed

*** dac3n *** < m-1 > information of subspace method

*** control parameter ***

```
                    mfre =   44     : number of equations
                    meiu =   20     : number of eigen value to be calculated : user
input
                    meig =   20     : number of eigen value to be calculated : use
in program
                    mall =   44     : number of pogitive in diagonal term of
m-matrix
                    mtrv =   20     : number of trial vectors
                    mbnd =    9     : band width of matrix
                    msht =   65     : max number of shift loop
                    mite =    2     : parameter of iteration loop
                    mit3 =    6     : max number of iteration loop
                    emin =  .000E+00: limit of minimum frequency (hz)
                    emax = 2.000E+02: limit of maximum frequency (hz)
                    tole = 1.000E-06: max tolerance of eror ratio
```

*** infom *** at "mjacob"
dx.lt.0 in dsqrt(dx)
now set dx=abs(dx)

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*** normal end of eigenvalue analysis

number of eigenvalues = 27
number of shifts = 5
number of iterations = 9

1==========

*** dac3n *** < m-4 > frequency,period,partcipat. fact

==========

mode <--frequency-> <-- period --> <---------- participation factor ---------->
(hz) (sec) (x dir.) (y dir.) (z dir.) (x rot.) (y rot.) (z rot.)

1 1.0275170E+01 9.7321992E-02 1.8115393E-01 1.2866097E+00 1.1084470E-02 -1.8687624E+02 4.3031118E+01 -2.2632770E+01
2 1.0887146E+01 9.1851437E-02 1.2483696E+00 -1.7833025E-01 5.8368797E-03 2.1014393E+01 2.4803322E+02 2.8022373E+01
3 1.6669777E+01 5.9988806E-02 3.2983468E-04 -4.0305336E-04 -5.6757670E-06 2.5261551E-01 3.3059296E-01 -4.4430543E+01
4 2.5012729E+01 3.9979645E-02 -1.3083676E-01 -1.0638048E-01 1.0151716E+00 -1.8106052E+02 3.3084102E+02 1.8350155E+00
5 2.5984046E+01 3.8485154E-02 1.4627745E-01 7.1131770E-02 2.2745417E-01 1.1638398E+02 -3.7417569E+02 -3.8346381E+00
6 2.6958681E+01 3.7093803E-02 -1.0877852E-01 2.4898493E-01 6.2690216E-02 3.7019473E+02 2.7852476E+02 1.0585532E+01
7 3.2073447E+01 3.1178439E-02 -8.2314460E-02 -3.1014843E-01 4.8710813E-02 7.8471127E+02 -1.2310562E+01 1.2217779E+01
8 3.4563014E+01 2.8932662E-02 -3.8990866E-01 1.6169978E-02 1.1305534E-02 -9.6888935E+01 -6.5584706E+02 2.1783095E+00
9 4.4325357E+01 2.2560450E-02 1.9439097E-02 3.7183940E-01 -2.4231101E-03 -1.7201985E+02 -1.3822702E+01 -7.6763818E+01
10 4.6755745E+01 2.1387746E-02 3.0696842E-03 7.6331542E-03 -7.5349230E-05 -3.1612271E+00 3.5155815E-02 7.7292928E+01
11 4.9643507E+01 2.0143621E-02 3.0099521E-01 5.3390734E-03 -3.5254024E-03 2.8890849E+01 8.8187447E+01 -5.0616787E+01
12 5.3144404E+01 1.8816656E-02 -8.0340551E-03 1.8478109E-01 -1.7997432E-03 1.0820036E+02 -1.0320043E+01 -2.0914538E+01
13 6.1038914E+01 1.6382991E-02 -1.0962631E-01 6.7698416E-03 1.0892519E-02 -8.6359035E+00 1.7247352E+02 -3.3219760E+01
14 6.4695742E+01 1.5456968E-02 1.9795346E-03 -1.4008767E-03 -2.8462685E-04 -8.1810334E-01 -3.0586612E+00 -2.3029874E+01
15 6.7941568E+01 1.4718530E-02 3.8918320E-04 -2.5854655E-03 3.2957063E-02 -6.4961802E+01 8.0866167E+01 -9.7109980E-01
16 7.2054296E+01 1.3878423E-02 9.1116053E-04 -1.4523057E-03 1.0581418E-02 -4.4794657E+01 -4.2734046E+01 5.8802271E-01
17 7.3891454E+01 1.3533365E-02 1.1285131E-03 2.6420102E-03 4.0390642E-01 1.1093449E+02 -4.9294160E+01 -2.4679757E-01
18 8.7752842E+01 1.1395642E-02 -4.1375804E-02 -2.0425987E-01 1.8682605E-02 -2.9362692E+02 9.1587372E+01 -3.7776590E-01
19 9.2705531E+01 1.0786843E-02 4.6081542E-02 -5.5874969E-02 -3.4542946E-02 2.1086688E+02 -1.5572712E+02 1.3380195E+00
20 9.6716635E+01 1.0339483E-02 -1.2159694E-01 4.9300362E-03 -6.3786096E-03 2.0151433E+02 9.4177362E+01 -1.4623906E+00

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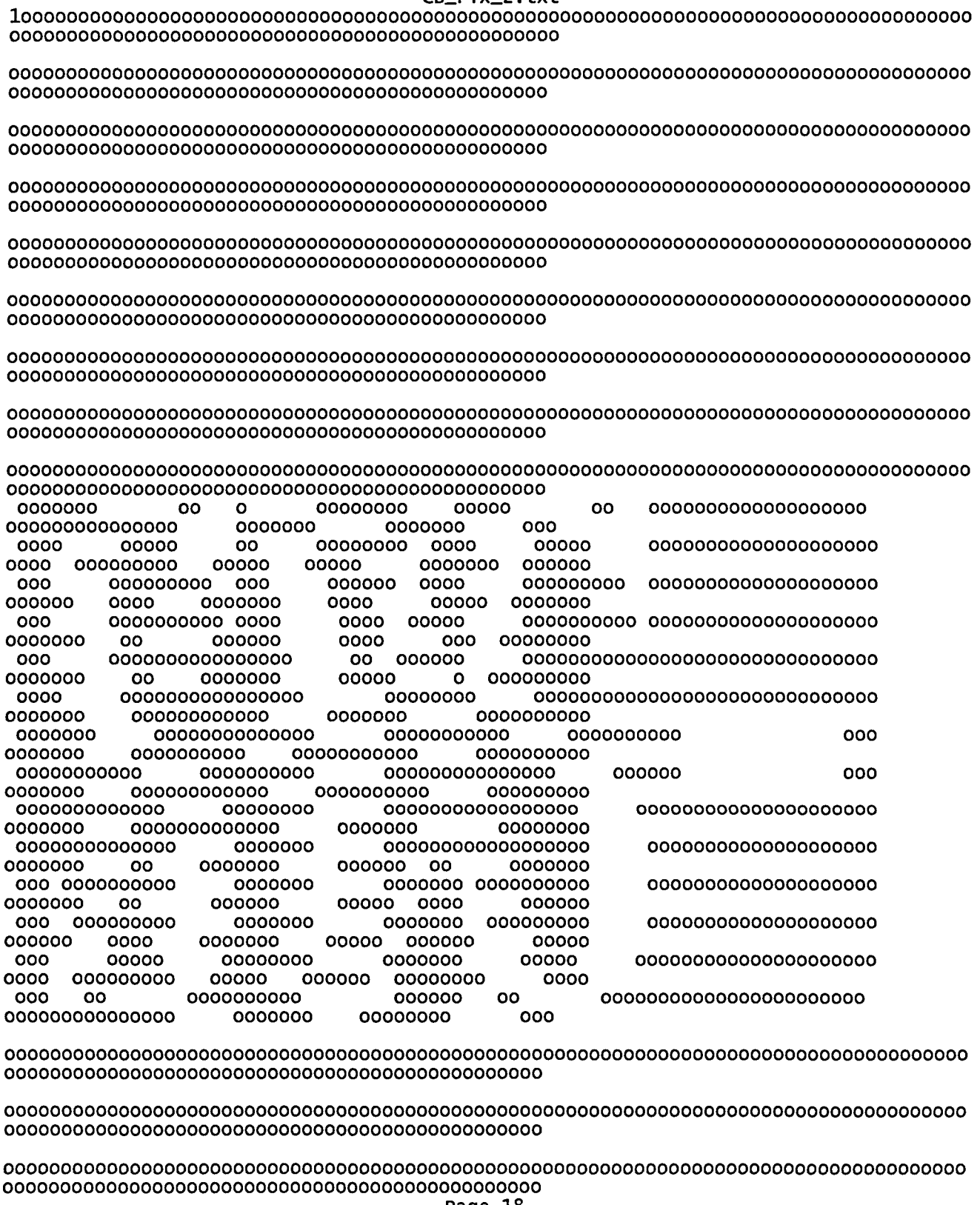
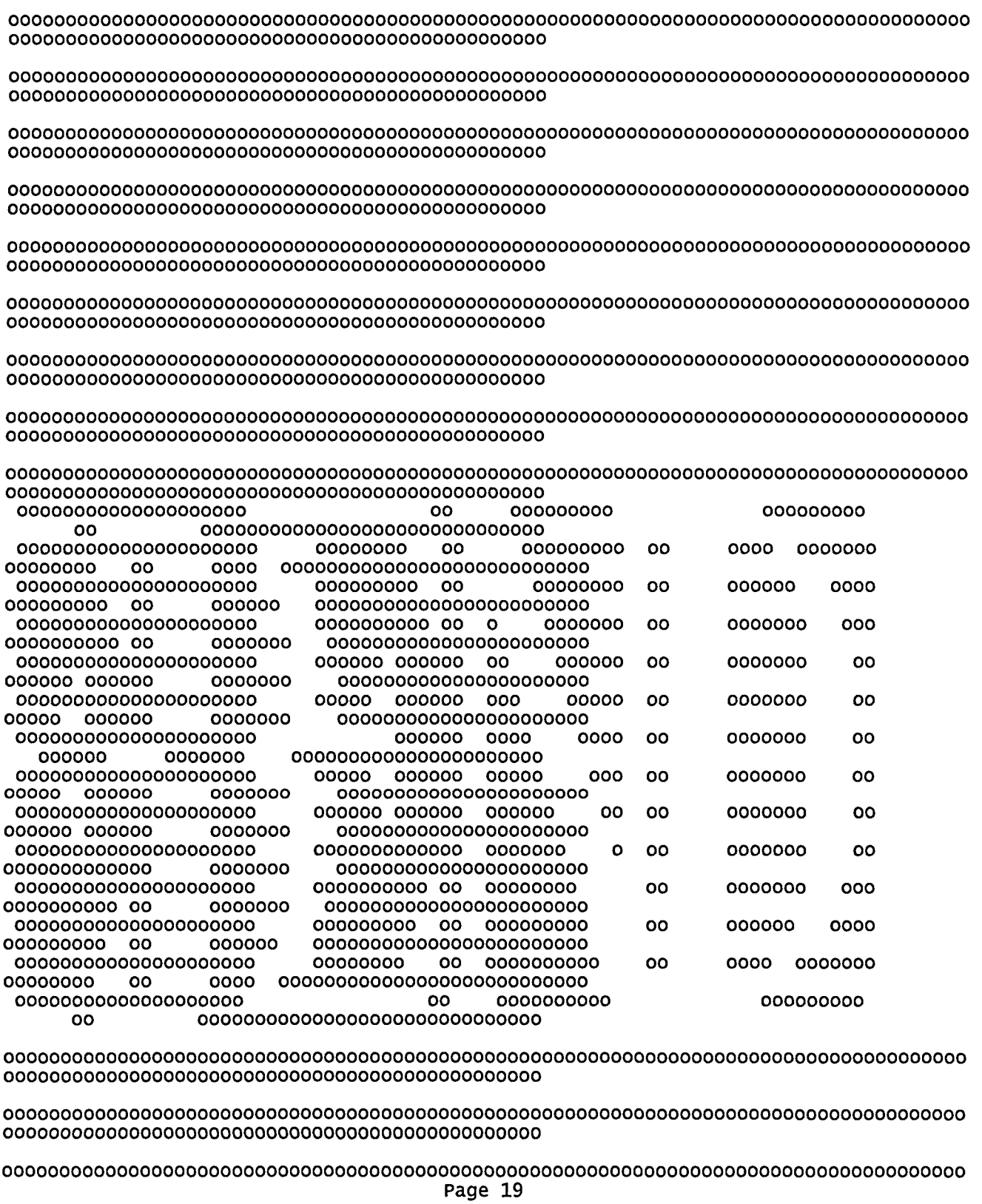


CB_Fix_2.txt



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