CALCULATION COVER SHEET

Calculation No.	100031-C-04
Project:	North Anna SSI Analysis of ISFSI Pad
Calculation Title:	Sliding and Overturning Factor of Safety
References:	See page 48
Attachments:	See Table of Contents, page 2

Total Number of Pages (Including Cover Sheet): 90

Revision Number	Approval Date	Description of Revision	Originator	Checker	Approver
0	6/12/97	Original Issue	APA	DJD	APA

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1.0 Purpose

The purpose of this calculation is to document the calculation of sliding and overturning factor of safety of the casks. SASSI [1,2] modules ANALYS and MOTION were used to calculate the acceleration time histories at the mass points of the beams modeling the casks.

2.0 Analyses

Modules ANALYS and MOTION were used to calculate the acceleration time histories at the nodal points corresponding to the center of the casks in the quarter model used for the SSI analysis of the ISFSI pad.

Program SASSI requires that one independent analysis should be performed for each input direction. Thus, the results for each direction need to be combined. In this case, due to the symmetry in the geometry, the results in the 2 directions orthogonal to the input direction are practically negligible. However, for completeness, the time histories in one direction due to the input in the three directions were added (e.g., x due to x, x due to y, and x due to z).

To calculate the time histories of the factor of safety and casks base shear and moment, the following formulas were used:

Base Shear: $Si = W*Ai$ $i=x,y$ Ai acceleration time history in g's, W = 230 kips

Base Moment: $Mxx = 8*W*Ay - Ixx*Axx$ Aii rotational acceleration time history in g's

$Myy = 8*W*Ax + Iyy*Ayy$

FS sliding: $FSs = (Sx^2 + Sy^2)^{1/2}/(0.3*W*[1-Az])$, coefficient of friction = 0.3

FS overturning: $FSo = (Mxx^2 + Myy^2)^{1/2}/(4*W*[1-Az])$

3.0 Results

Tables 3-1, 3-2, and 3-3 give the maximum acceleration at the center of the casks for each of the input directions and their time of occurrance. There, it can be seen that the three orthogonal directions are practically uncoupled. Reference 3 should be used for element and node identification.

Figures 3-1, 3-2, and 3-3 show, for the cask defined at node 231, the base shear load in the longitudinal direction, the base shear load in the transverse direction, and the vertical load due to the input in the 3 directions. Figures 3-4 and 3-5 show the time histories of the inverse of the sliding and overturning factors of safety (1/FS) based on those shear and axial loads.

Figure 3-6 to 3-10, 3-11 to 3-15, 3-16 to 3-20, 3-21 to 3-25, 3-26 to 3-30, and 3-31 to 3-35 show the same sets of results for nodes 232, 233, 234, 235, 236, and 237, respectively.

According to these figures, the lowest factor of safety for overturning is about 1/0.6 = 1.67 at 3.71 seconds and higher than about 2 the rest of the time. ✓

According to these figures, the lowest factor of safety for sliding occurs for the casks defined at node 231 (close to the center of the pad) at time 3.71 seconds and it is slightly higher than one. However, it should be noted that the ground motions in the x and y directions have an extreme peak occurring at the same time at 3.71 seconds (Reference 4) eventhough they are statistically independent. This situation is very unrealistic and it is due to the fact that these motions correspond to artificially generated time histories. At any other time, the factor of safety is higher than 1.25. This value represents a more realistic factor of safety since it is calculated in a region with extreme peaks in both directions but they do not occur at the same time.

This higher than one value can be confirmed if this factor of safety is estimated by using the 100-40-40 rule suggested in the ASCE Standard 4-86 (Reference 5) to combine the effects of the maximum forces induced by each direction of the input motion. This combination rule recognize the fact that having a extreme peak in both input directions is unrealistic. At node 231 the maximum accelerations in each direction are:

Ax = 0.227g

Ay = 0.227g

Az = 0.124g

Assuming (100%x, 40%y, 40%z)

$FSs = 0.3*(1-0.050)/(0.227^2 + 0.091^2)^{1/2} = 1.165$

Assuming (40%x, 100%y, 40%z)

$FSs = 0.3*(1-0.050)/(0.091^2 + 0.227^2)^{1/2} = 1.165$

Assuming (40%x, 40%y, 100%z)

$FSs = 0.3*(1-0.124)/(0.091^2 + 0.091^2)^{1/2} = 2.042$

Thus, the use of this combination rule gives a minimum factor of safety for sliding of 1.165.

Table 3-1 Input X Direction: Maximum Absolute Acceleration (g's)

N.P.	X	AT TIME	Y	AT TIME	Z	AT TIME
198	0.2155	6.6400	0.0001	10.0300	0.0022	9.3800
203	0.2152	6.6400	0.0003	9.7400	0.0044	9.5500
208	0.2145	6.6400	0.0005	5.9100	0.0047	5.8300
213	0.2137	6.6400	0.0006	10.3400	0.0057	5.8200
218	0.2121	6.6400	0.0005	6.6600	0.0067	5.9500
223	0.2095	3.7100	0.0010	6.6600	0.0070	6.2700
228	0.2093	3.7100	0.0018	5.7900	0.0243	5.7300
231	0.2276	6.6400	0.0009	10.0300	0.0022	9.3800
232	0.2285	9.1000	0.0021	9.7400	0.0044	9.5500
233	0.2302	9.1000	0.0039	5.9100	0.0047	5.8300
234	0.2283	9.1000	0.0035	5.9000	0.0057	5.8200
235	0.2259	6.6400	0.0034	6.1500	0.0067	5.9500
236	0.2178	9.1000	0.0091	5.8700	0.0070	6.2700
237	0.2411	9.1000	0.0142	5.7900	0.0244	5.7300

Table 3-1 (cont.) Maximum Absolute Angular Accelerations (Rads/Sec/Sec/g)

N.P.	XX	AT TIME	YY	AT TIME	ZZ	AT TIME
198	0.0001	10.0300	0.0031	5.7100	0.0000	5.7200
203	0.0002	9.2600	0.0029	5.7100	0.0000	5.7200
208	0.0004	5.9100	0.0030	5.7100	0.0000	5.7200
213	0.0004	5.9000	0.0031	5.7100	0.0000	5.7200
218	0.0004	6.1500	0.0028	5.7100	0.0000	5.7200
223	0.0010	5.8700	0.0026	5.7100	0.0000	5.7200
228	0.0015	5.7900	0.0056	5.7200	0.0000	5.7200
231	0.0001	10.0300	0.0035	5.7100	0.0000	5.7200
232	0.0002	9.2600	0.0033	5.7100	0.0000	5.7200
233	0.0004	5.9100	0.0034	5.7100	0.0000	5.7200
234	0.0004	5.9000	0.0035	5.7100	0.0000	5.7200
235	0.0004	6.1500	0.0032	5.7100	0.0000	5.7200
236	0.0010	5.8700	0.0030	5.7100	0.0000	5.7200
237	0.0016	5.7900	0.0060	5.7200	0.0000	5.7200

Table 3-2. Input Y Direction. Maximum Absolute Acceleration (g's)

N.P.	X	AT TIME	Y	AT TIME	Z	AT TIME
198	0.0005	8.0900	0.1960	3.7100	0.0366	14.2600
203	0.0014	8.0800	0.1961	3.7100	0.0372	14.2600
208	0.0018	9.2400	0.1960	3.7100	0.0381	14.2600
213	0.0024	9.2400	0.1961	3.7100	0.0388	7.5100
218	0.0029	9.2300	0.1954	3.7100	0.0390	7.5100
223	0.0040	7.9400	0.1879	7.2400	0.0373	7.5000
228	0.0047	9.0900	0.1884	3.7100	0.0283	7.5000
231	0.0015	8.2500	0.2238	10.2200	0.0367	14.2600
232	0.0032	8.2500	0.2246	4.3500	0.0373	14.2600
233	0.0031	5.2000	0.2278	4.3500	0.0381	14.2600
234	0.0038	9.2400	0.2309	4.3500	0.0389	7.5100
235	0.0065	8.0800	0.2328	4.3500	0.0390	7.5100
236	0.0106	8.0700	0.2282	4.3400	0.0374	7.5000
237	0.0153	8.0400	0.2240	4.3400	0.0284	7.5000

Table 3-2 (cont.) Maximum Absolute Angular Acceleratios (Rads/Sec/Sec/g)

N.P.	XX	AT TIME	YY	AT TIME	ZZ	AT TIME
198	0.0069	14.2000	0.0001	8.2500	0.0001	4.4400
203	0.0070	14.2000	0.0003	8.2900	0.0002	4.4400
208	0.0072	14.2000	0.0003	4.9800	0.0003	8.0800
213	0.0073	14.2000	0.0003	7.6500	0.0003	9.2400
218	0.0070	14.2000	0.0006	7.6400	0.0004	4.6100
223	0.0067	7.4500	0.0010	7.5800	0.0006	5.2700
228	0.0061	7.4400	0.0016	7.5600	0.0007	14.2100
231	0.0074	14.2000	0.0001	8.2500	0.0001	4.4400
232	0.0075	14.2000	0.0003	8.2900	0.0002	4.4400
233	0.0076	14.2000	0.0003	4.9800	0.0003	8.0800
234	0.0077	14.2000	0.0004	7.6500	0.0003	9.2400
235	0.0075	14.2000	0.0007	7.6400	0.0004	4.6100
236	0.0071	7.4500	0.0011	8.0700	0.0006	5.2700
237	0.0065	7.4400	0.0017	7.5600	0.0007	14.2100

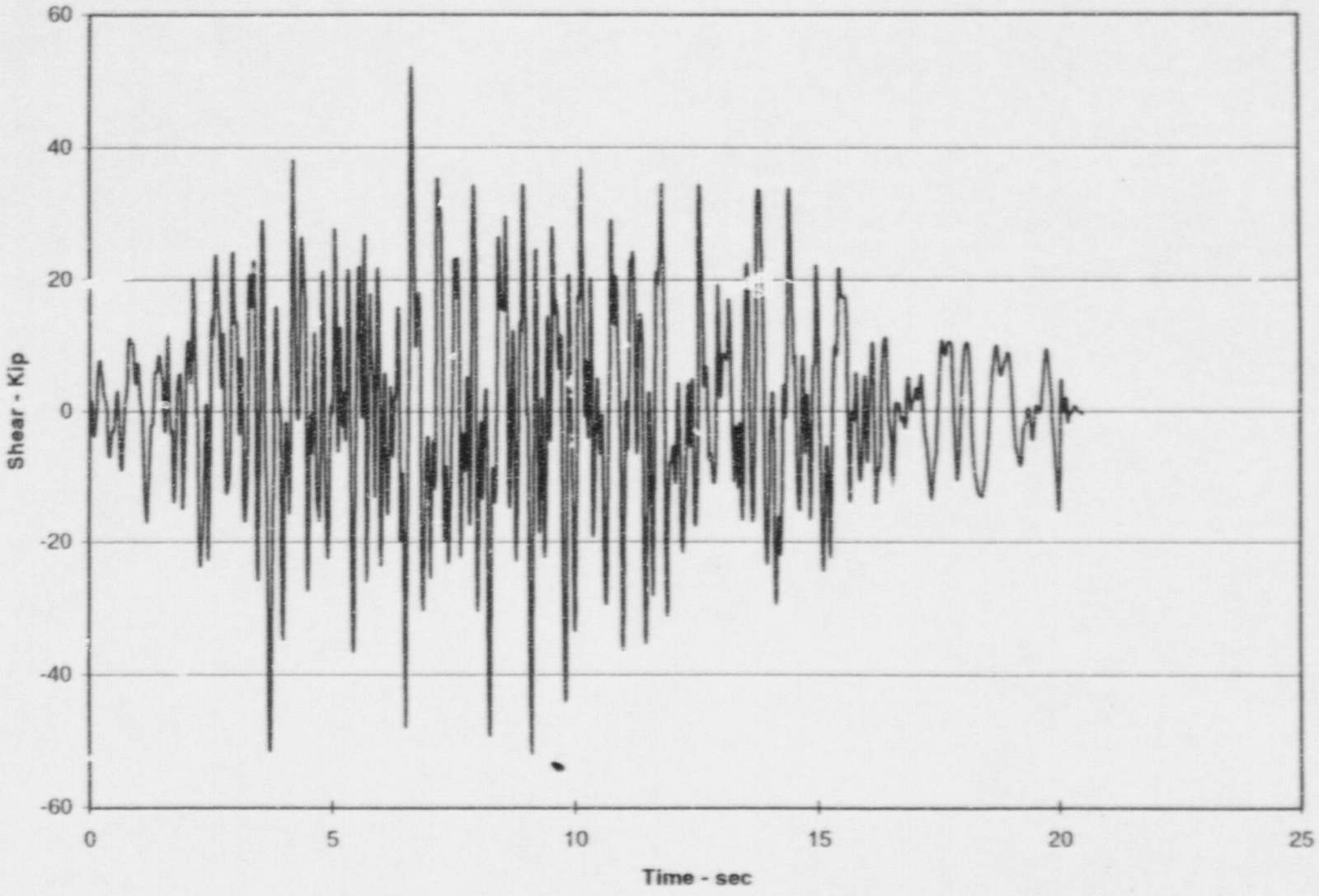
Table 3-3. Input Z Direction. Maximum Absolute Acceleration (g's)

N.P.	X	AT TIME	Y	AT TIME	Z	AT TIME
198	0.0006	3.7300	0.0033	7.9900	0.1335	7.2500
203	0.0019	5.7200	0.0032	7.9900	0.1333	7.2500
208	0.0030	5.7200	0.0031	7.9900	0.1315	7.2500
213	0.0036	5.7200	0.0031	5.6800	0.1295	7.2500
218	0.0037	5.7200	0.0032	5.7400	0.1294	7.2500
223	0.0039	5.9400	0.0034	5.7400	0.1304	7.2500
228	0.0058	5.7300	0.0027	1.9800	0.1287	7.2500
231	0.0024	8.4500	0.0263	7.9900	0.1336	7.2500
232	0.0058	3.790	0.0255	7.9900	0.1334	7.2500
233	0.0062	3.7800	0.0244	5.6800	0.1316	7.2500
234	0.0066	5.7600	0.0243	5.6800	0.1295	7.2500
235	0.0064	8.2100	0.0253	5.7400	0.1294	7.2500
236	0.0087	5.8900	0.0268	5.7400	0.1304	7.2500
237	0.0221	5.6800	0.0205	1.9800	0.1288	7.2500

Table 3-3 (cont.) Maximum Absolute Angular Accelerations (Rads/Sec/Sec/g)

N.P.	XX	AT TIME	YY	AT TIME	ZZ	AT TIME
198	0.0028	7.9900	0.0002	6.1000	0.0000	8.5100
203	0.0027	7.9900	0.0005	3.7900	0.0000	8.4500
208	0.0026	5.6800	0.0006	3.7800	0.0000	2.1000
213	0.0026	5.6800	0.0005	8.1200	0.0000	8.3400
218	0.0027	5.7400	0.0006	8.1600	0.0000	2.3500
223	0.0029	5.7400	0.0009	8.1300	0.0000	2.0600
228	0.0022	5.6800	0.0021	5.6800	0.0000	5.7400
231	0.0029	7.9900	0.0002	6.0400	0.0000	8.5100
232	0.0028	7.9900	0.0005	3.7900	0.0000	8.4500
233	0.0027	5.6800	0.0006	3.7800	0.0000	2.1000
234	0.0027	5.6800	0.0006	8.1200	0.0000	8.3400
235	0.0028	5.7400	0.0007	8.1600	0.0000	2.3500
236	0.0030	5.7400	0.0009	8.1300	0.0000	2.0600
237	0.0023	1.9800	0.0022	5.6800	0.0000	5.7400

Figure 3-1. Node 231 - Shear X Direction



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QUK DD 6/12/97

Figure 3-2. Node 231 - Shear Y Direction

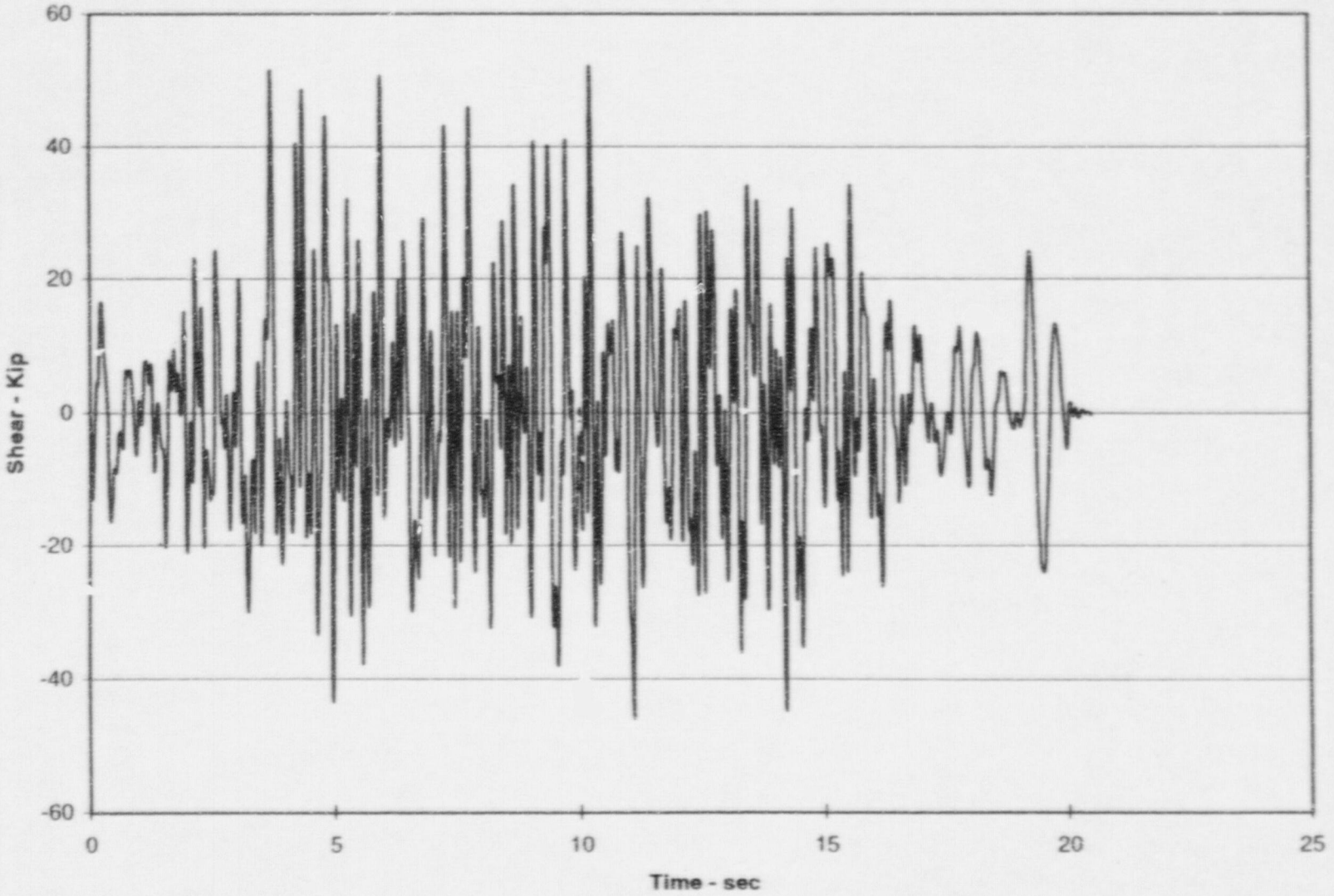

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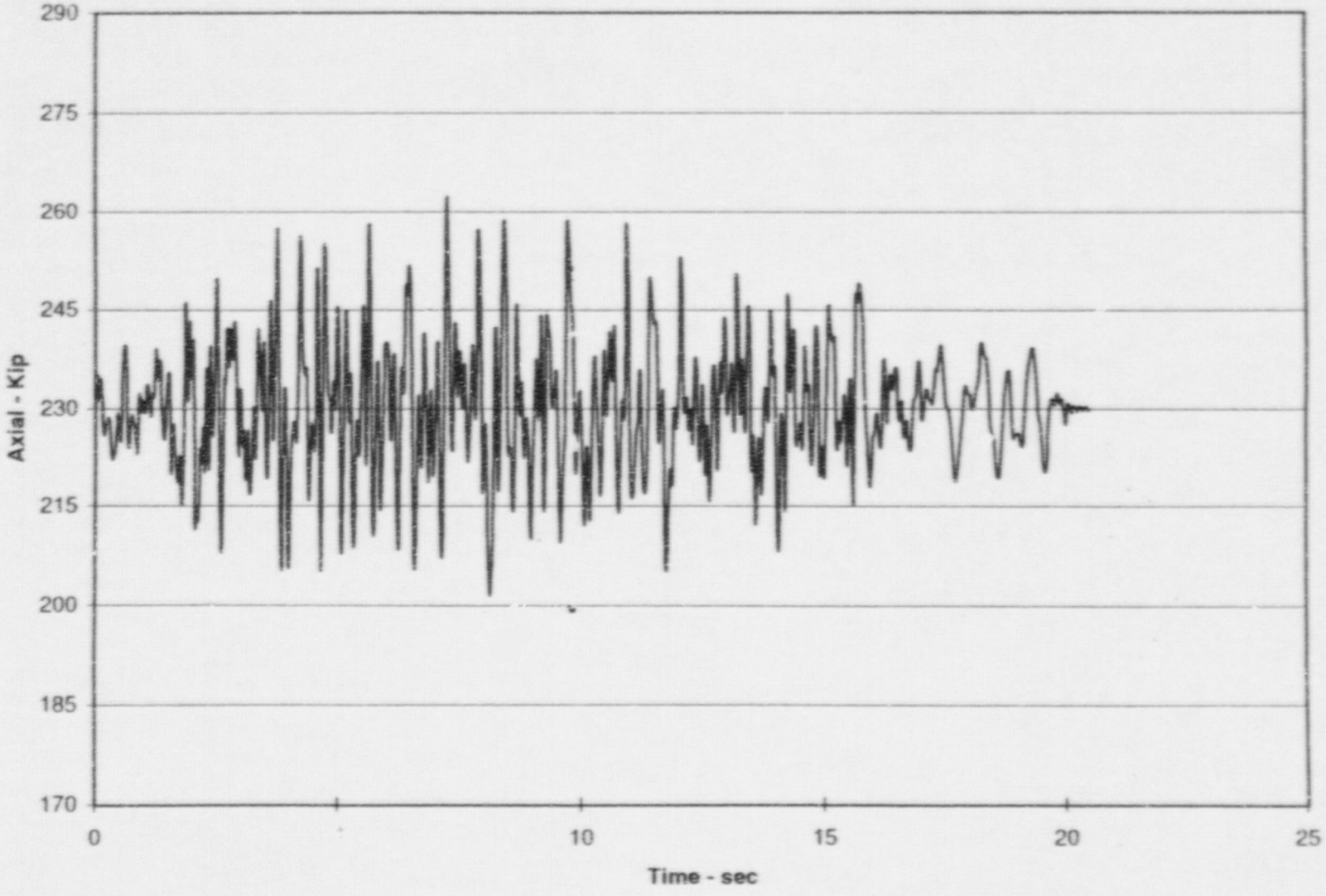
Figure 3-3. Node 231 - Axial Load



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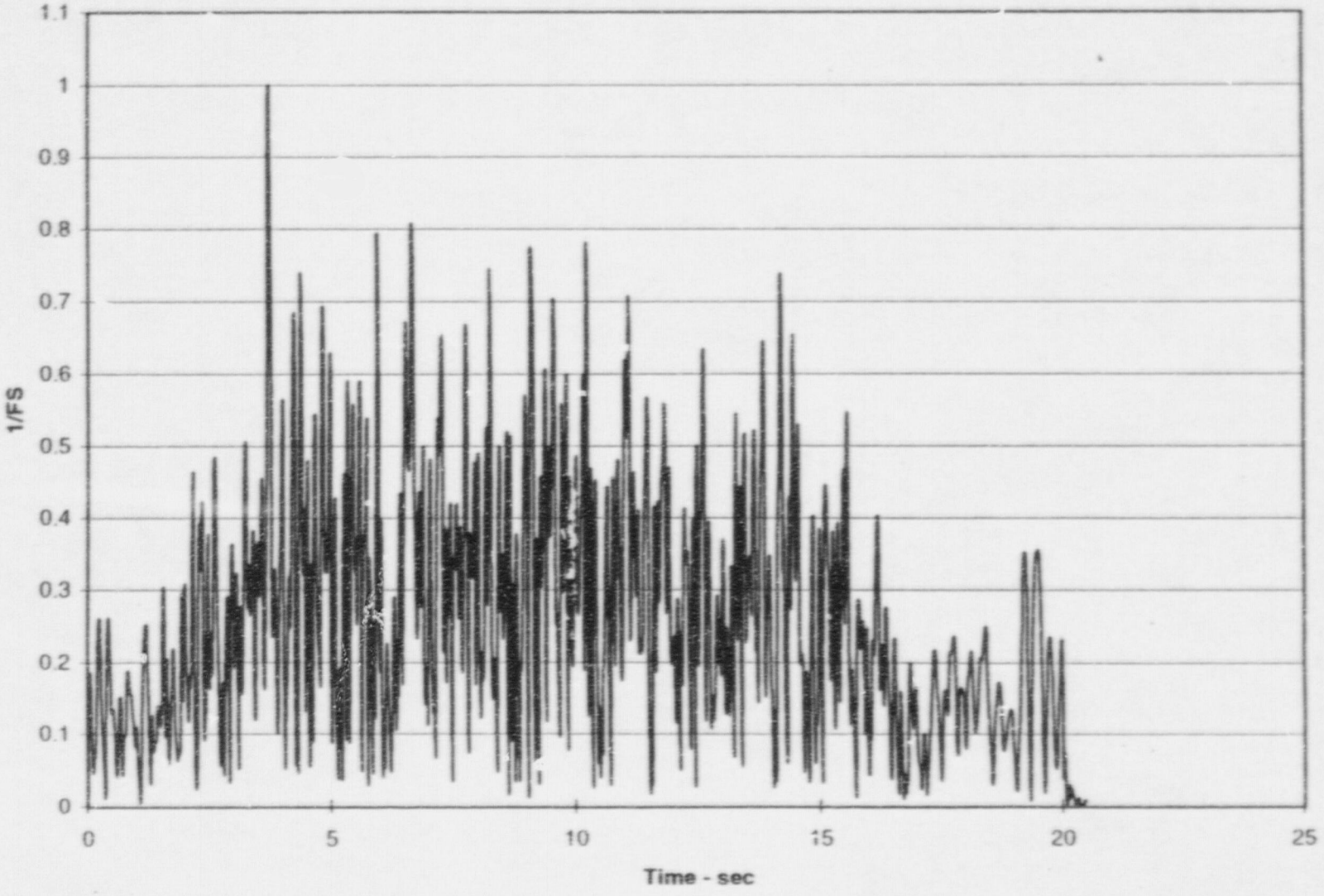
CHK: DTD 6/12/97

Figure 3-4. Node 231 - Sliding Factor of Safety



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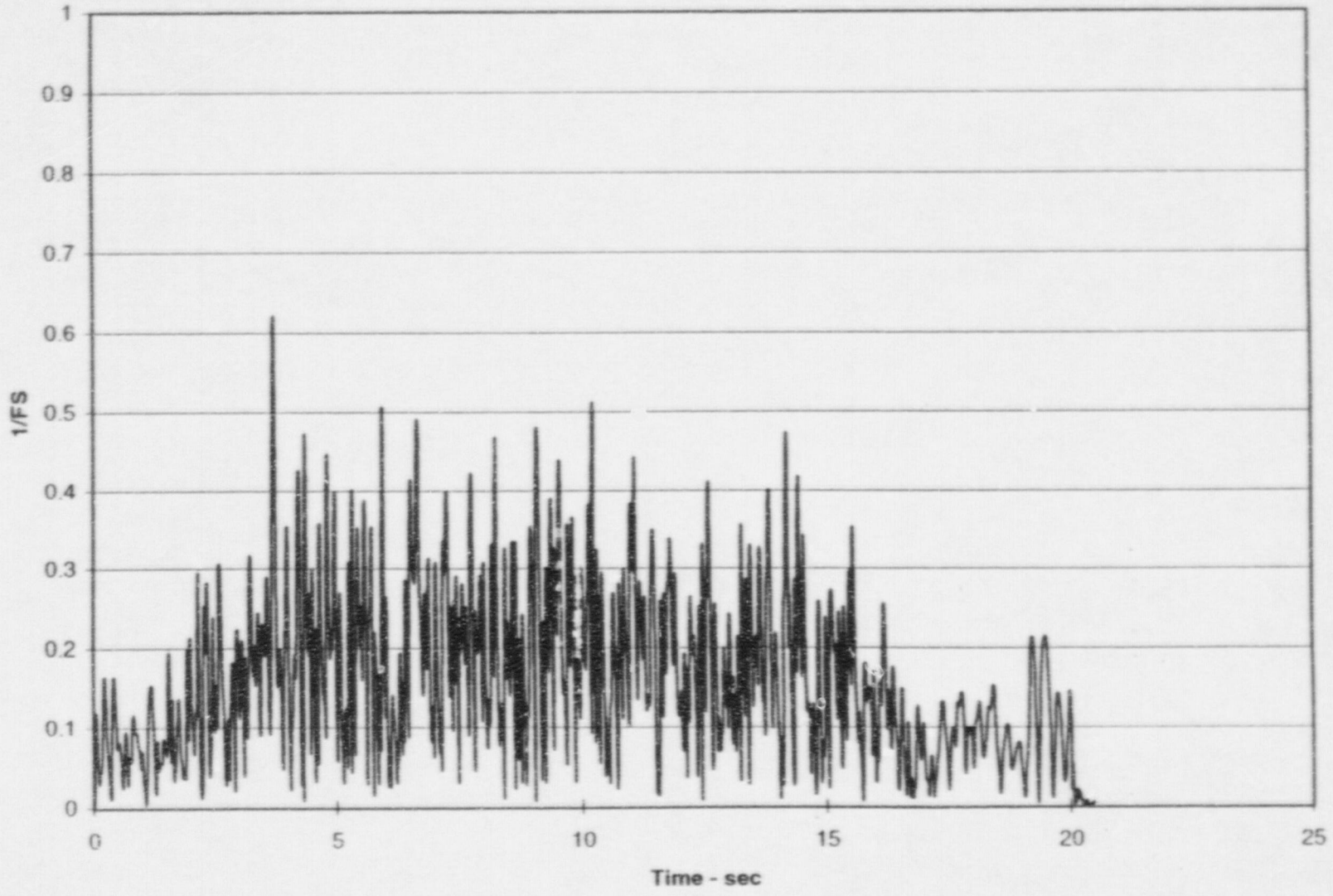
CHK: DTD 6/12/07

Figure 3-5. Node 231 - Overturning Factor of Safety



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CHK: DJD 6/12/97

Figure 3-6. Node 232 - Shear X Direction

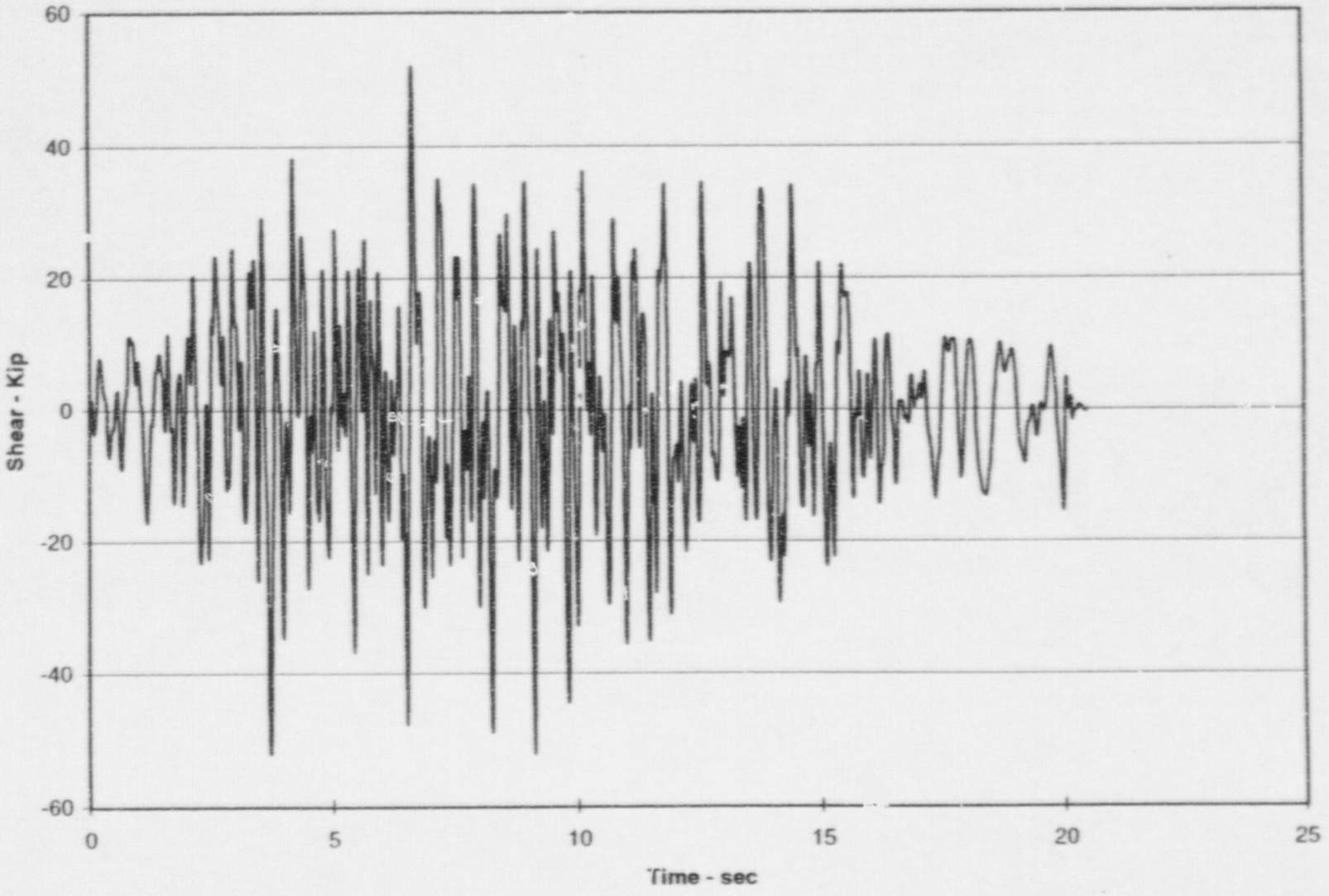

Figure 3-7. Node 232 - Shear Y Direction

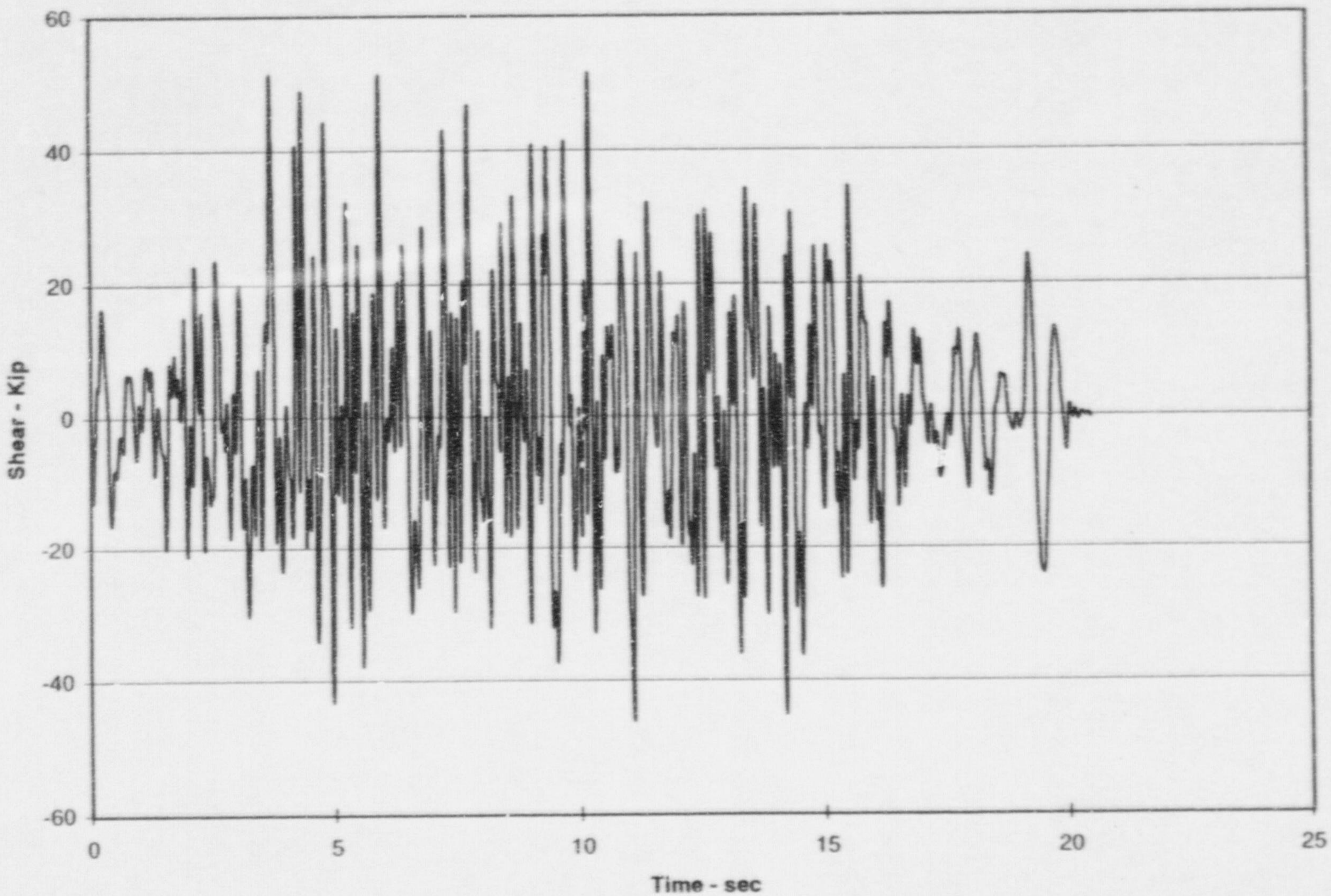

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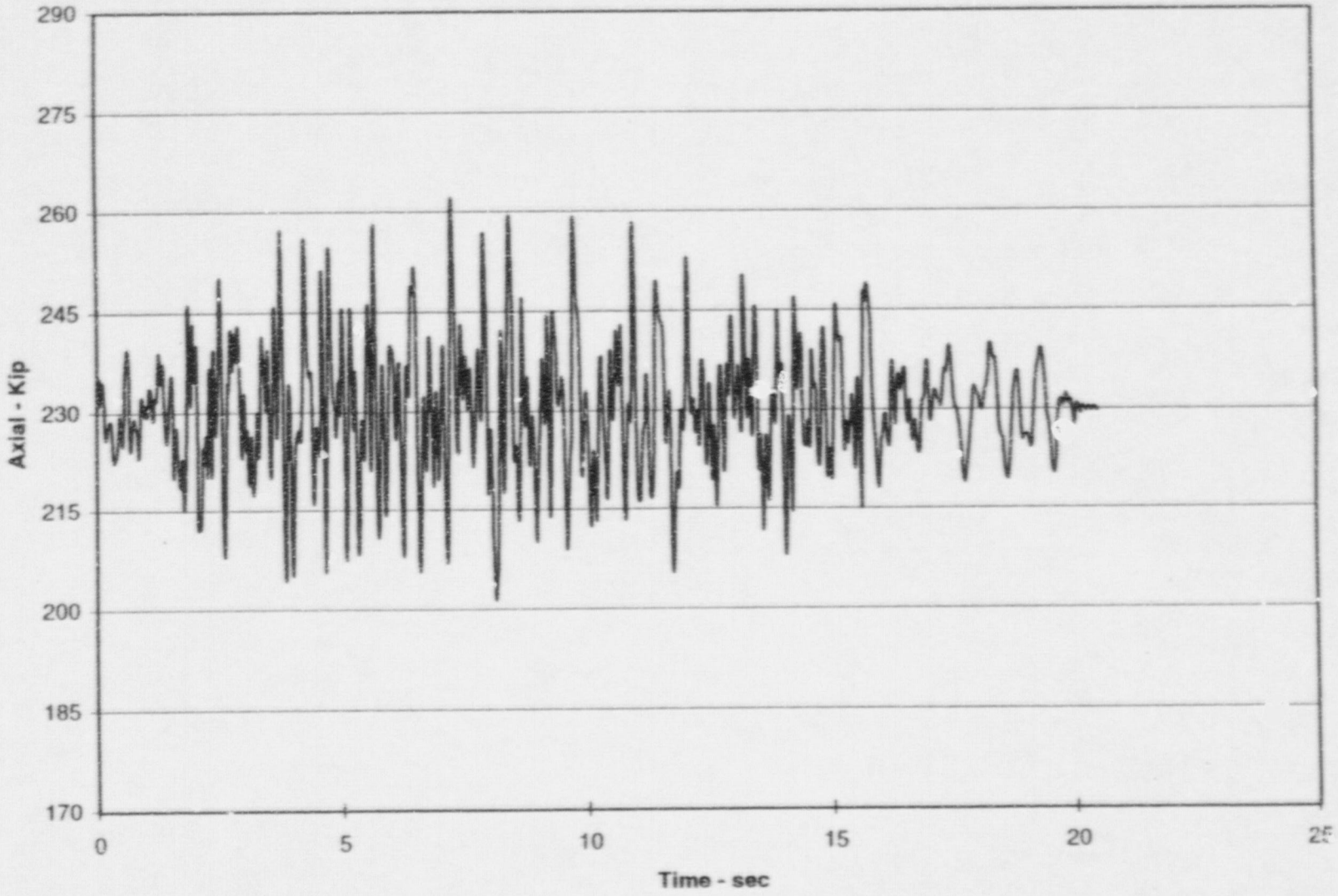
Figure 3-8. Node 232 - Axial Load



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CHK: DJD 6/12/97

Figure 3-9. Node 232 - Sliding Factor of Safety

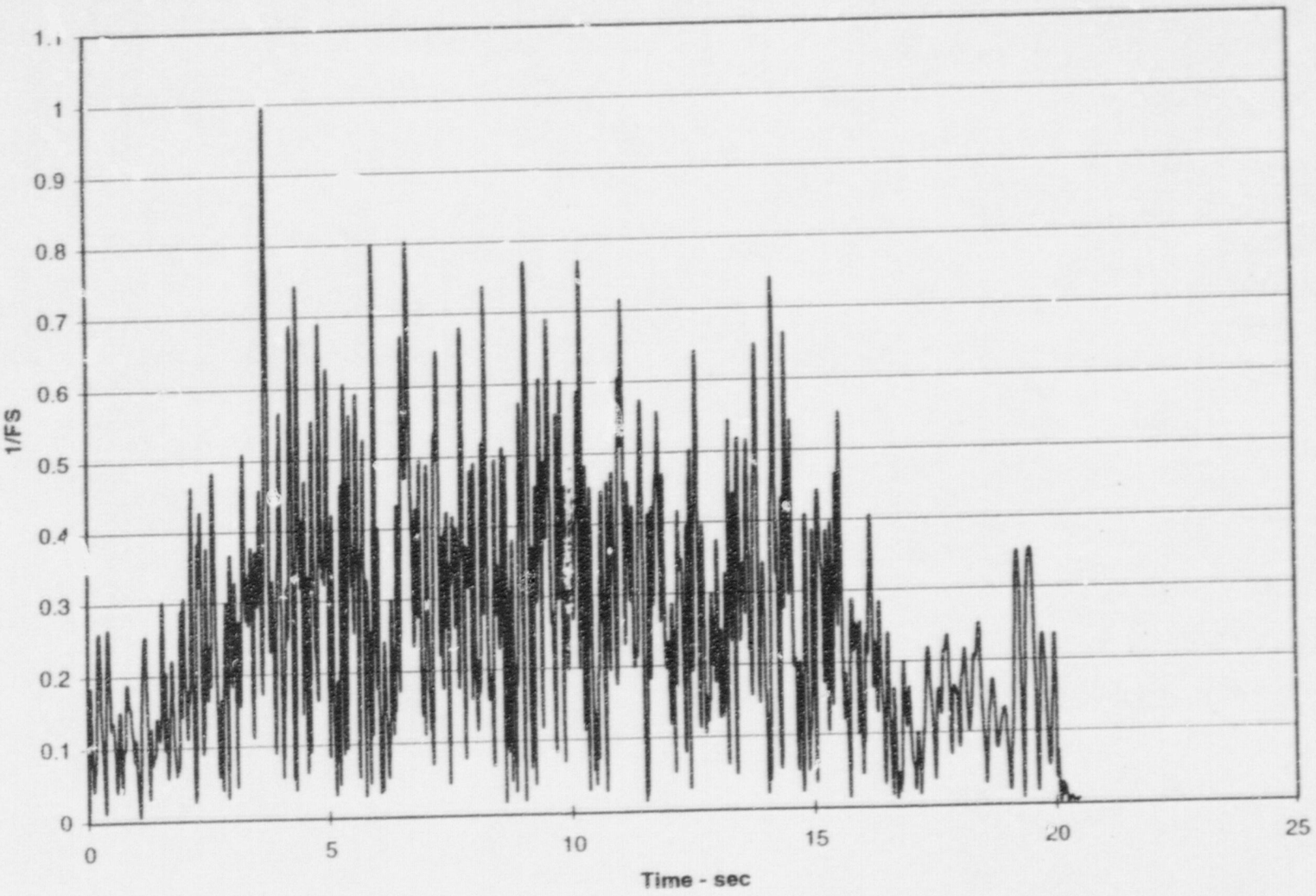
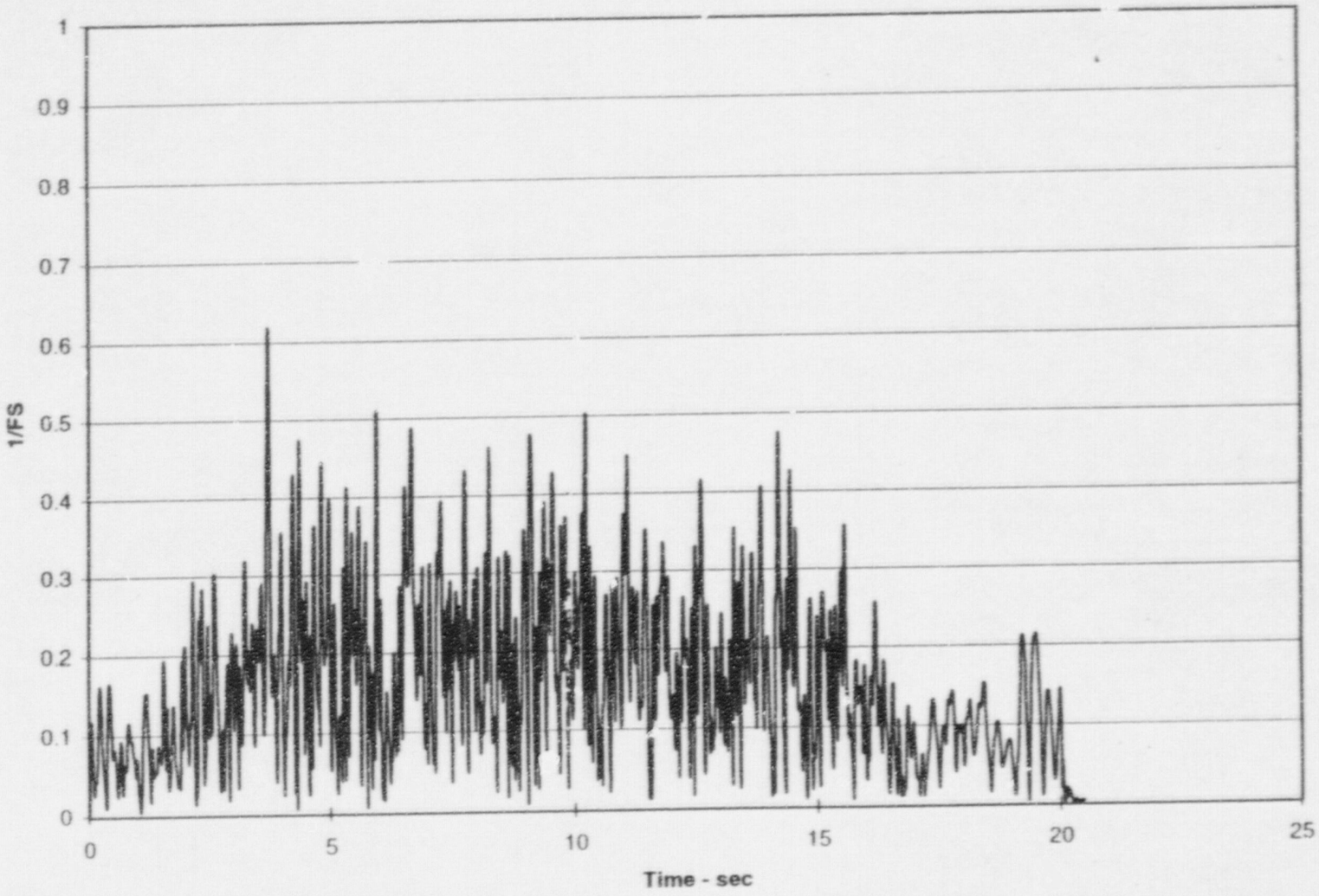


Figure 3-10. Node 232 - Overturning Factor of Safety



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CHK: DDD 6/12/97

Figure 3-11. Node 233 - Shear X Direction

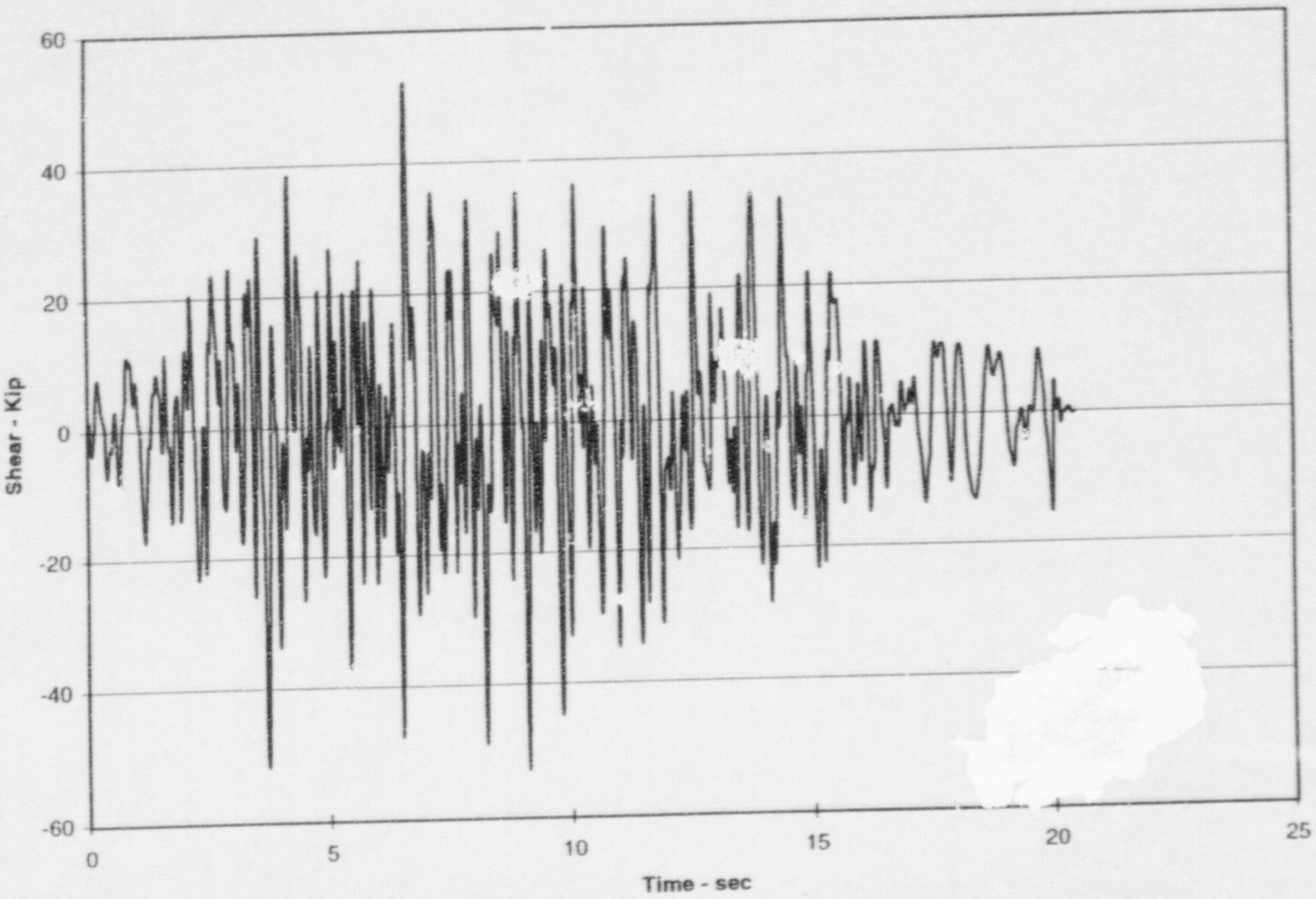

Figure 3-12. Node 233 - Shear Y Direction

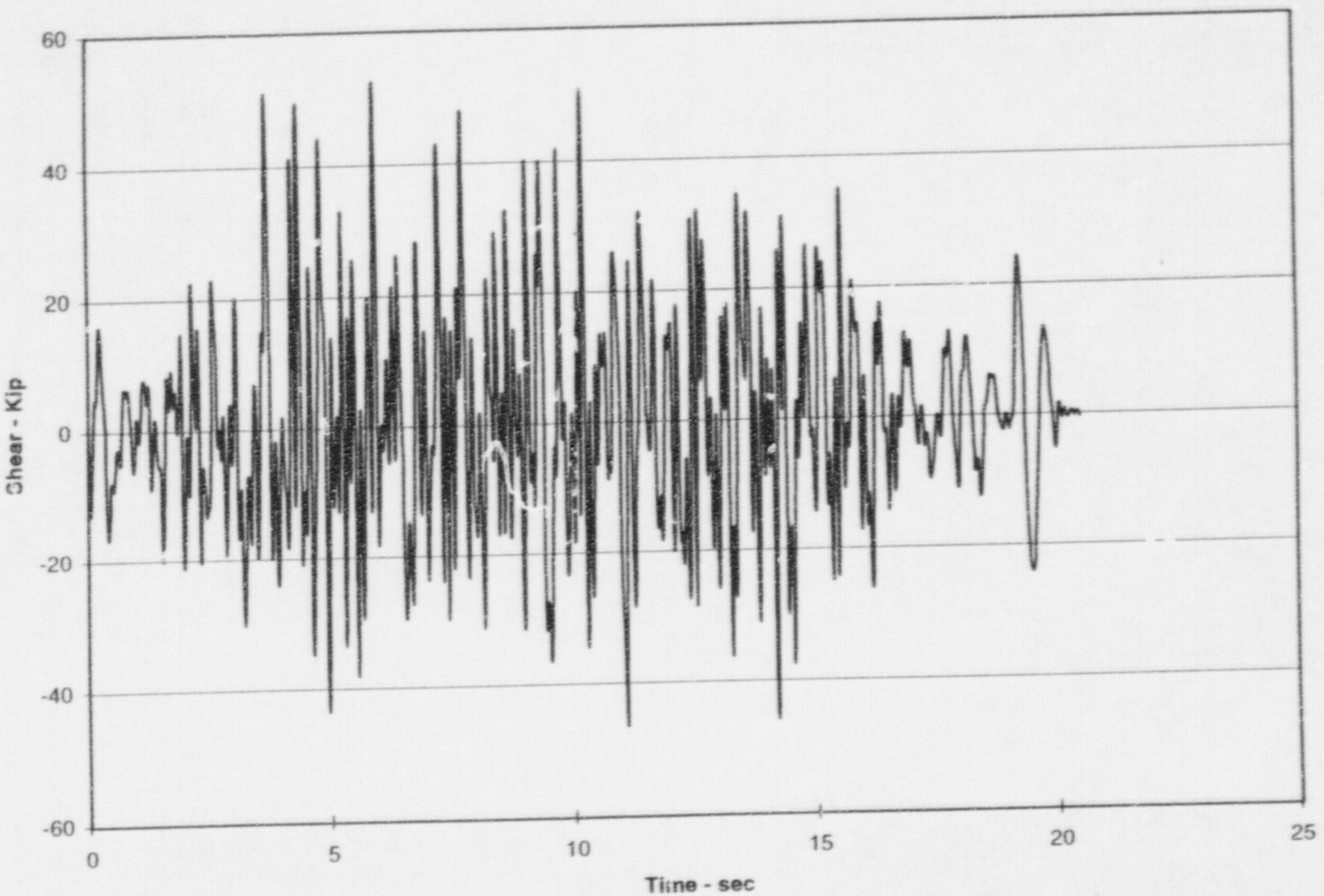

Figure 3-13. Node 233 - Axial Load

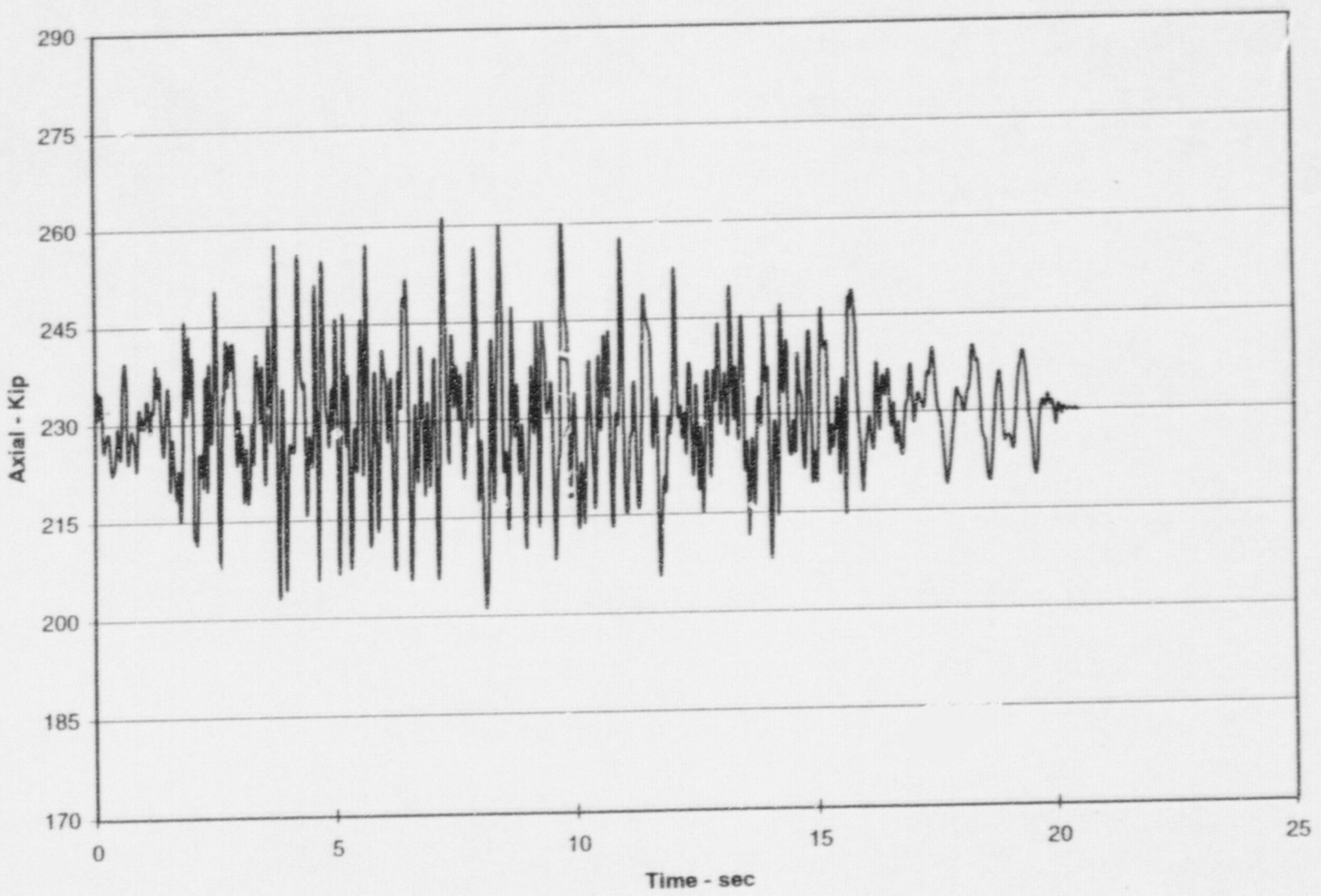

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Figure 3-14. Node 233 - Sliding Factor of Safety

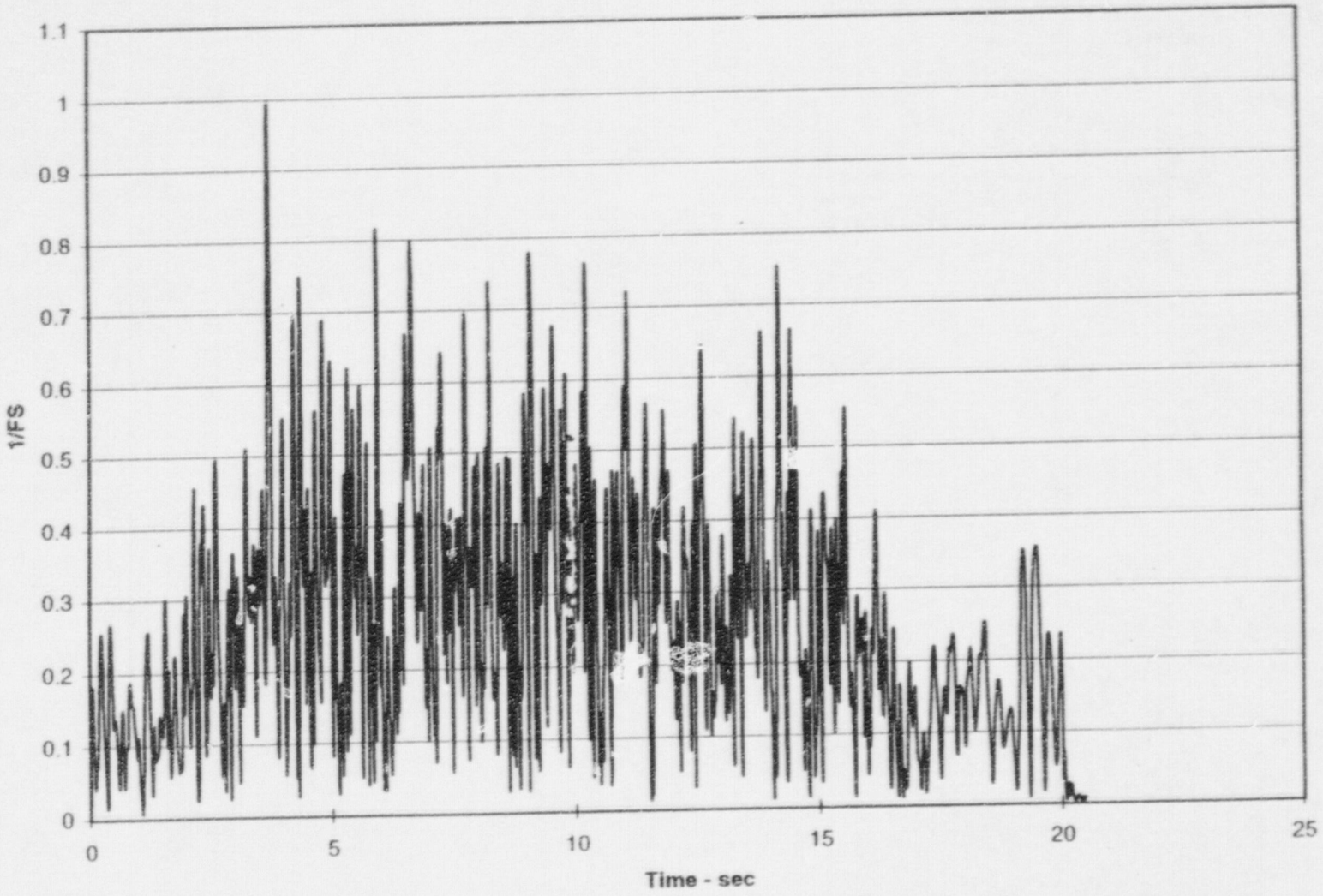

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Figure 3-15. Node 233 - Overturning Factor of Safety

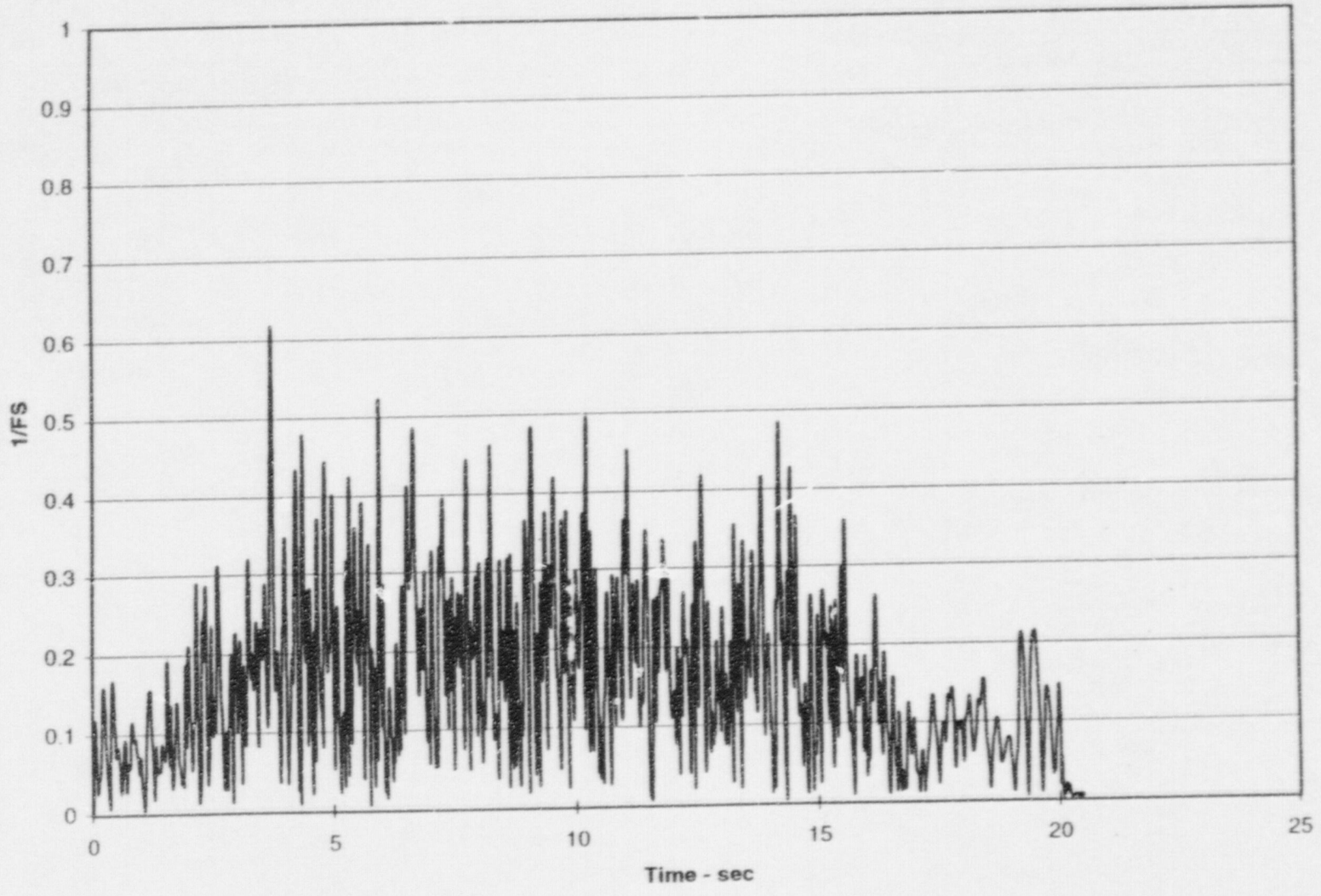

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Figure 3-16. Node 234 - Shear X Direction

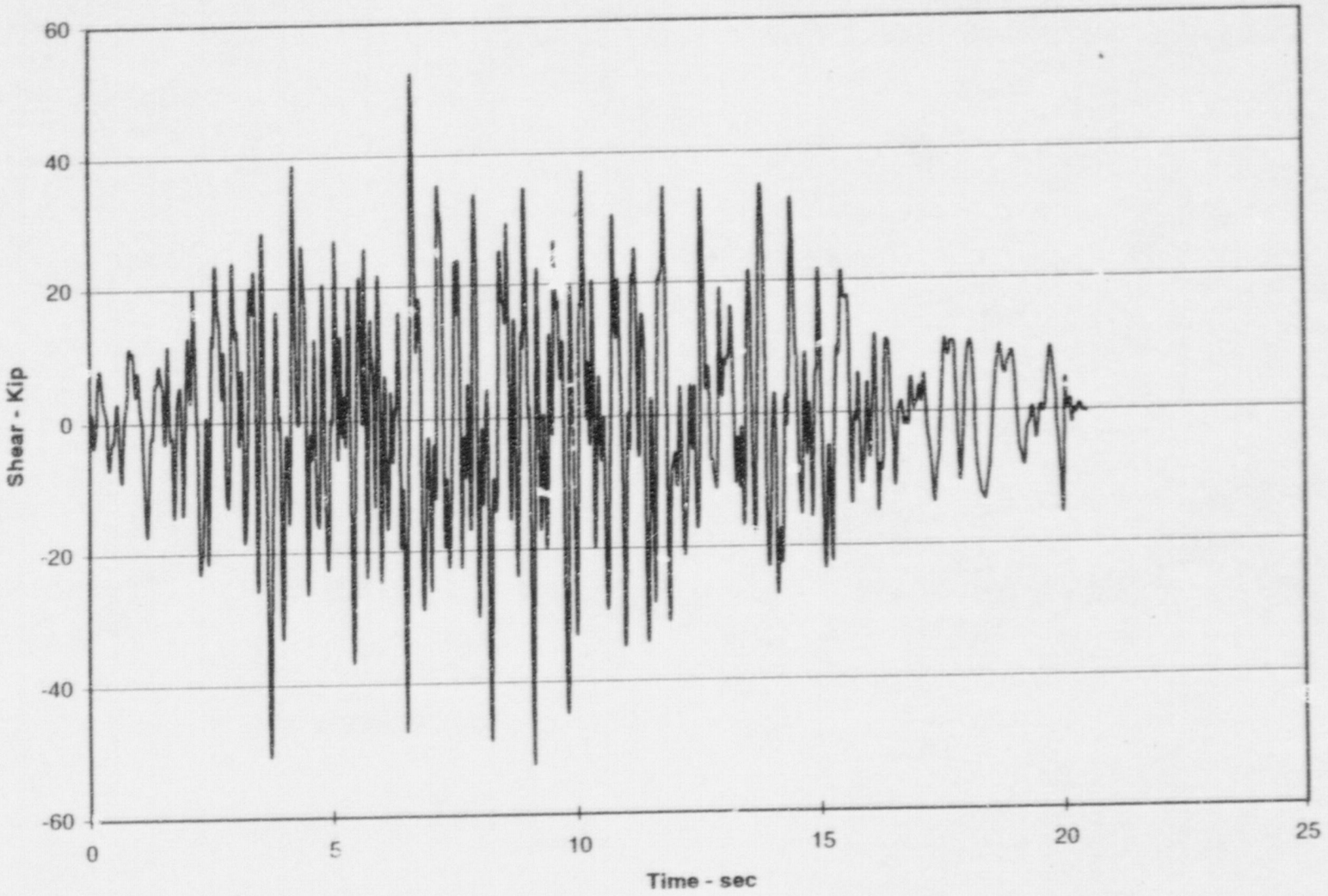

Figure 3-17. Node 234 - Shear Y Direction

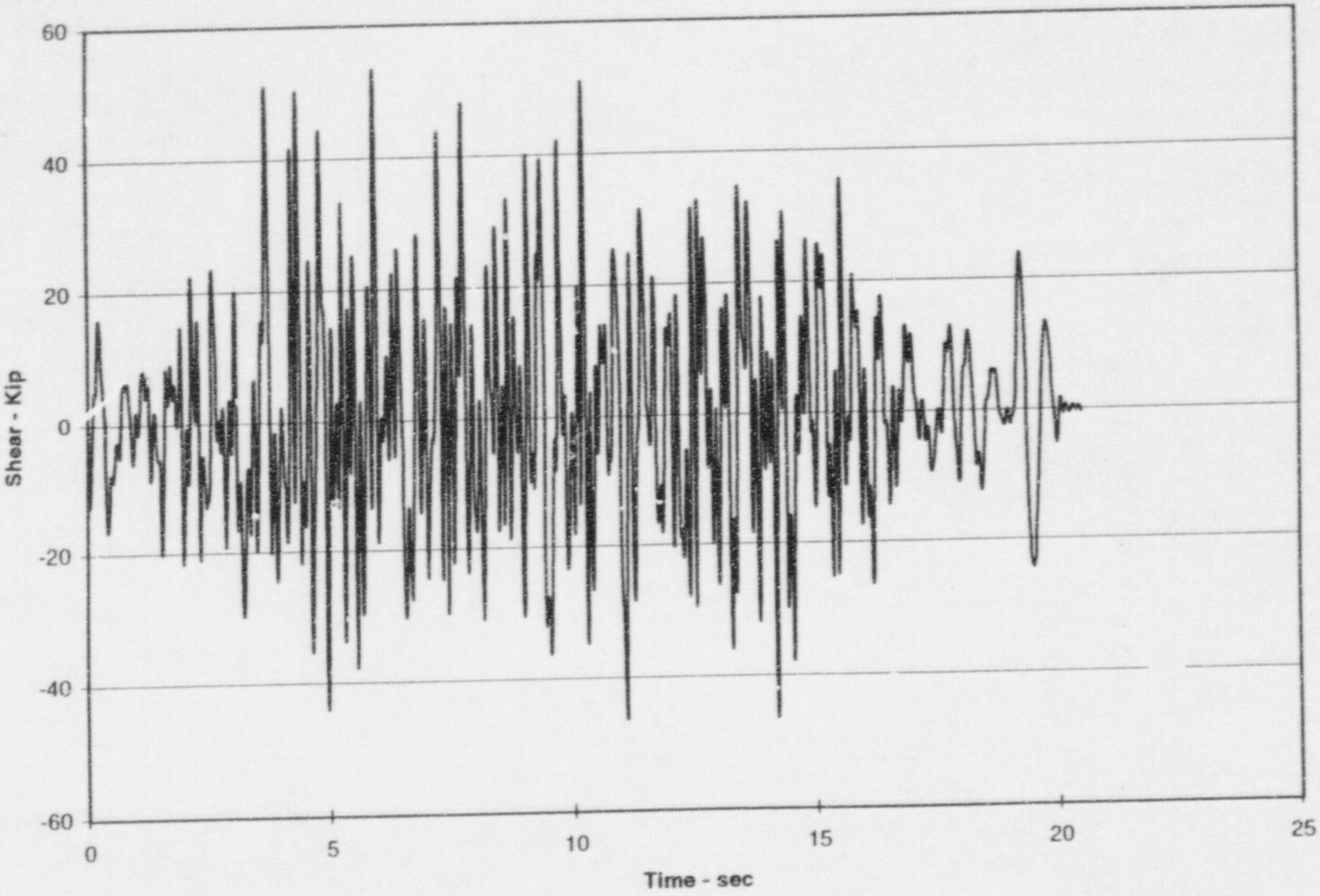

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Figure 3-18. Node 234 - Axial Load

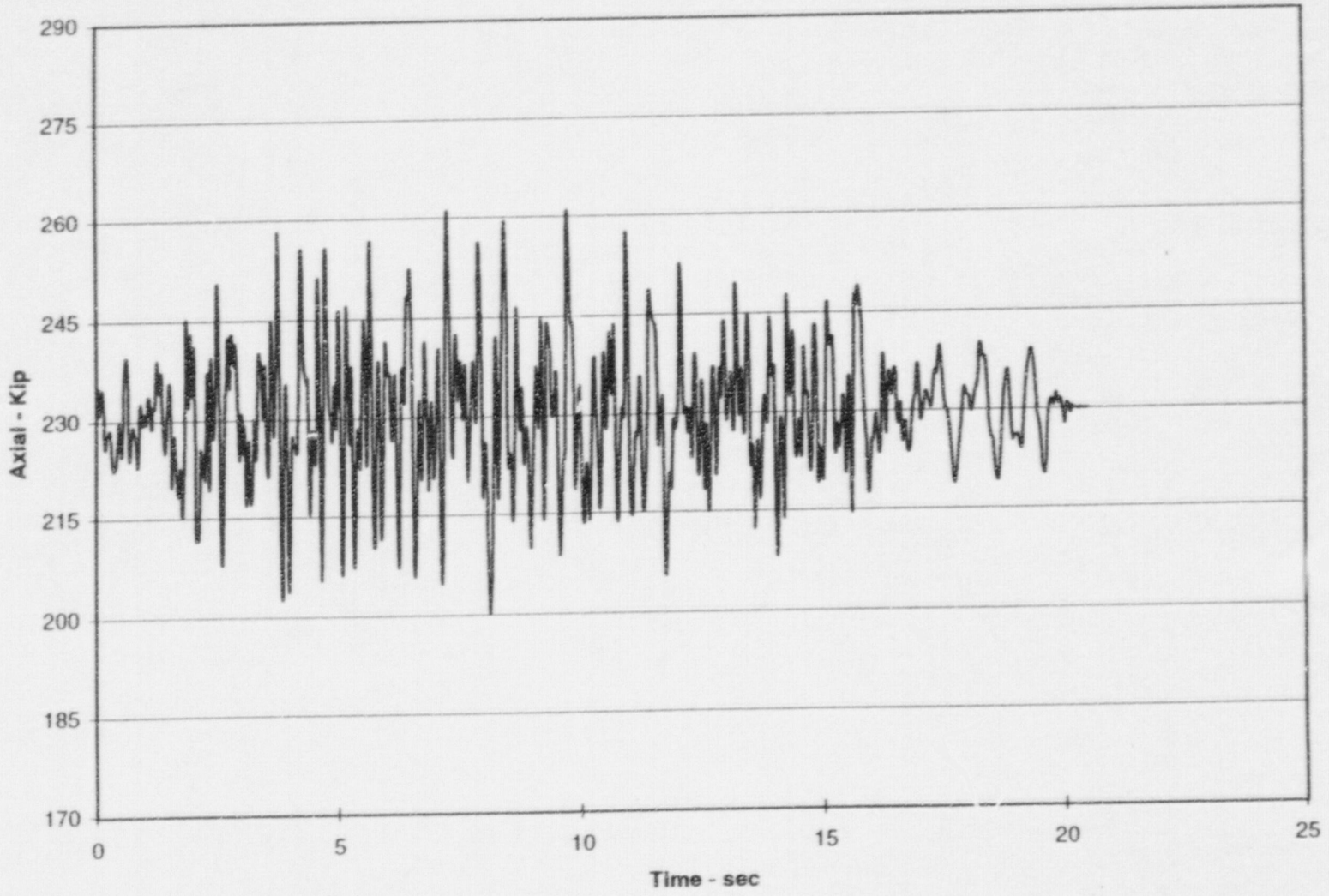

Figure 3-19. Node 234 - Sliding Factor of Safety

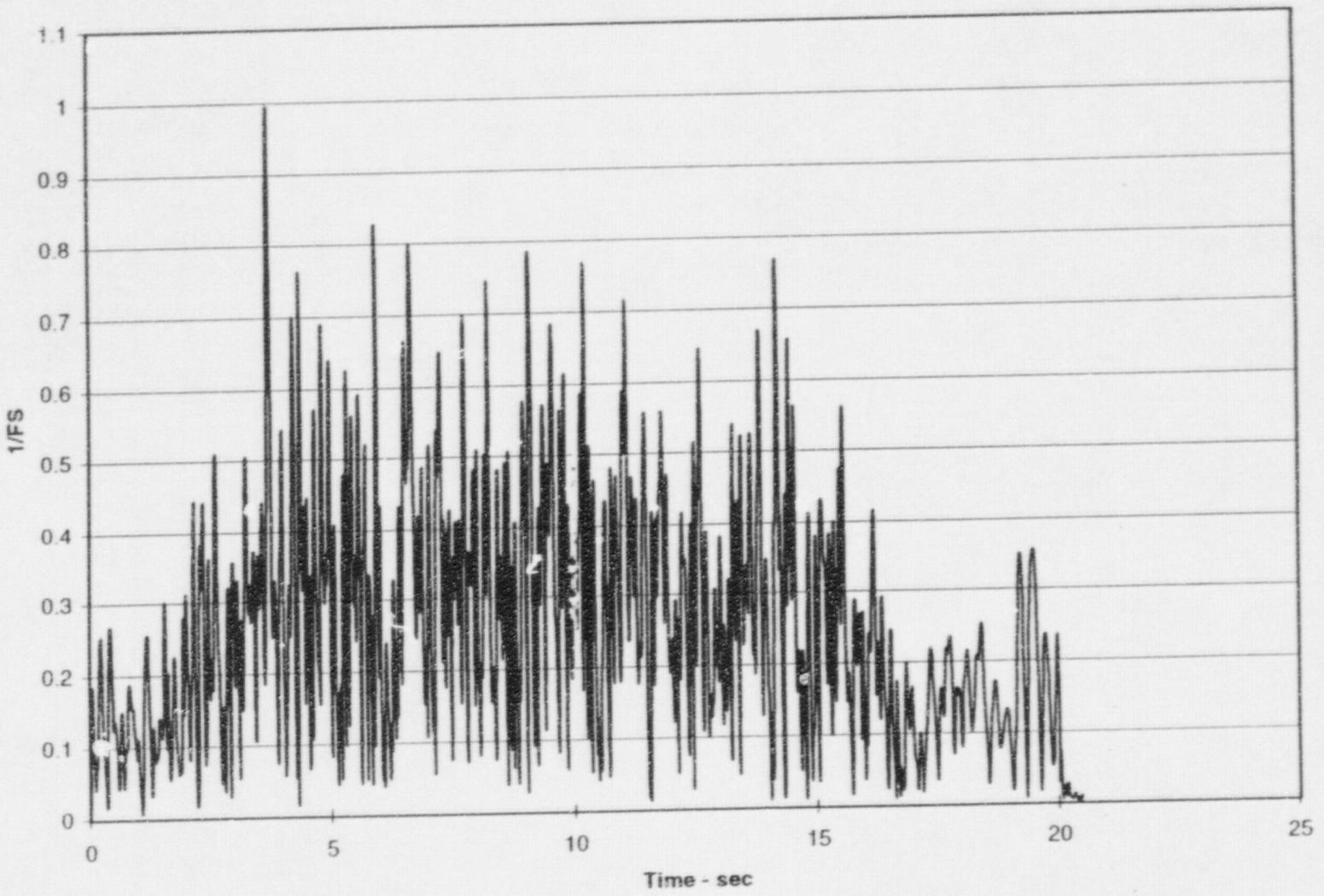

Figure 3-20. Node 234- Overturning Factor of Safety

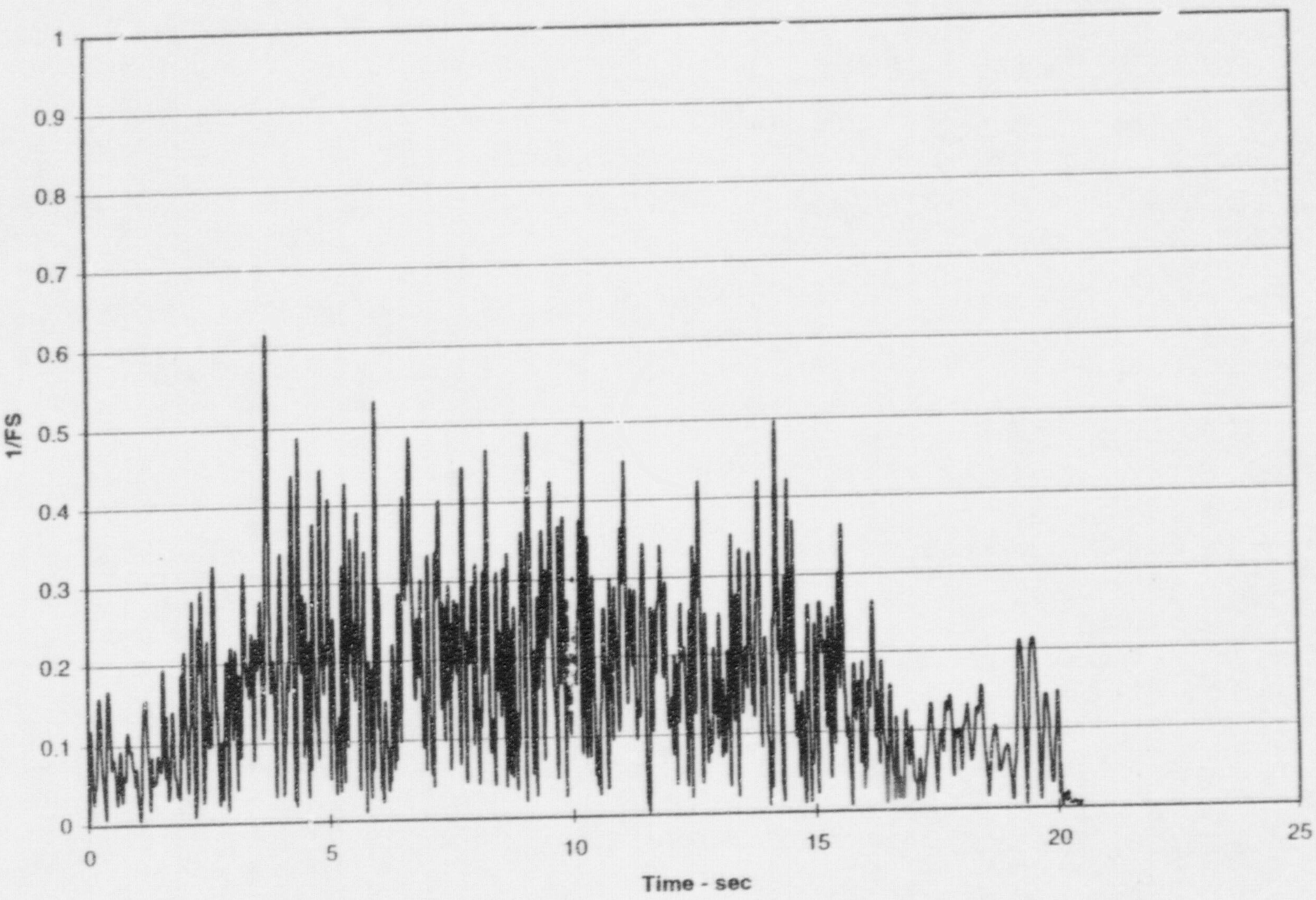

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Figure 3-21. Node 235 - Shear X Direction

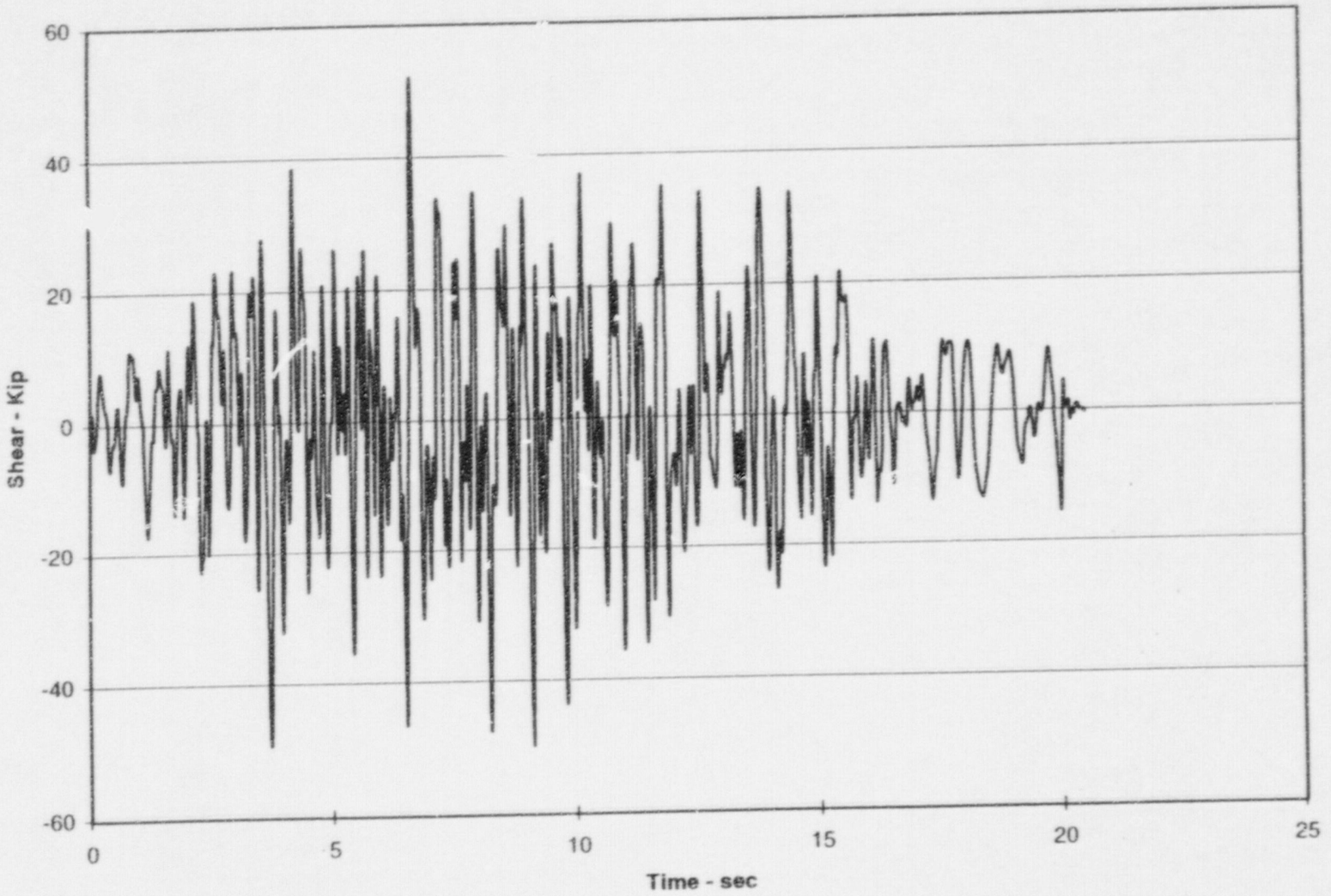

Figure 3 .2. Node 235 - Shear Y Direction

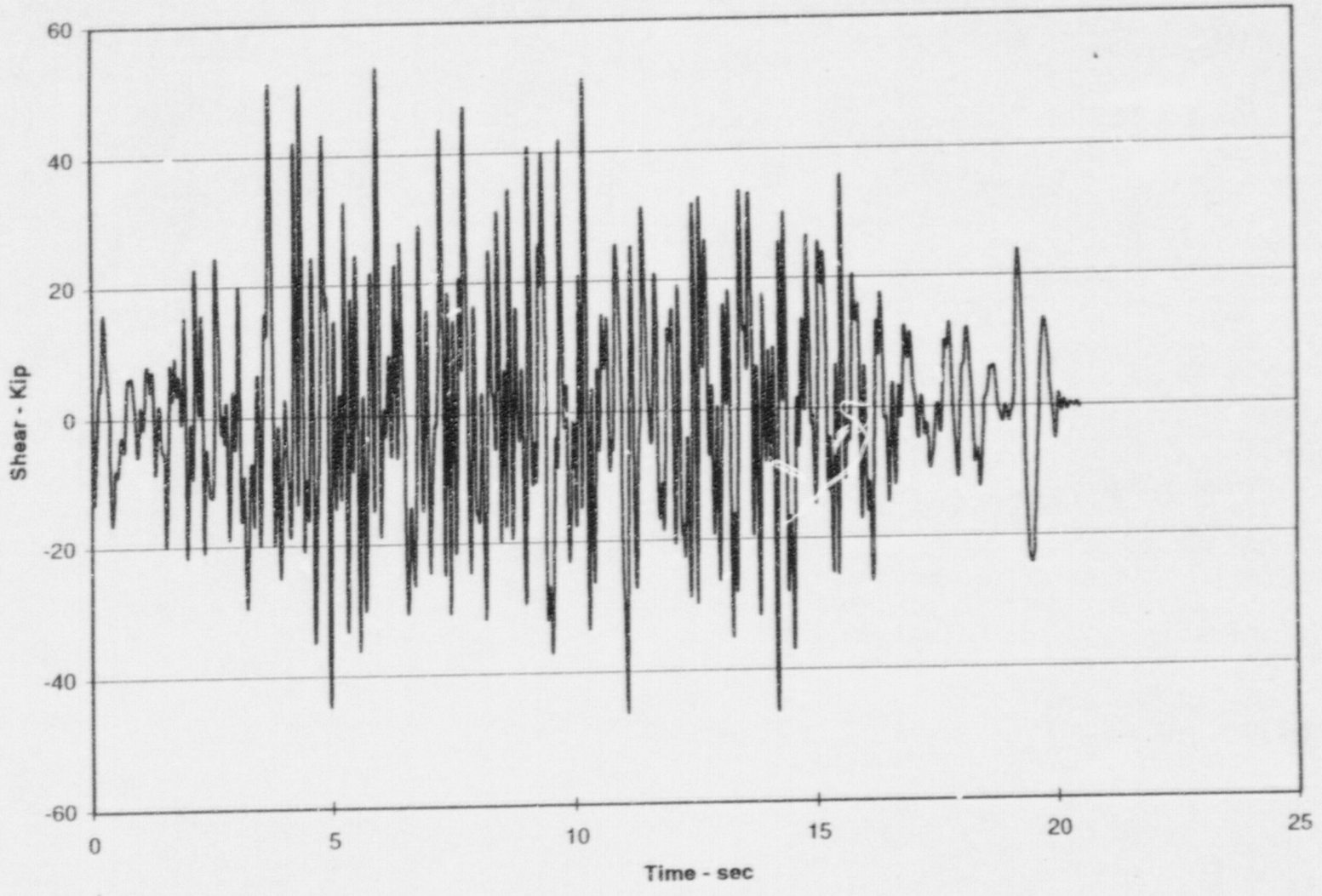

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Figure 3-23. Node 235 - Axial Load

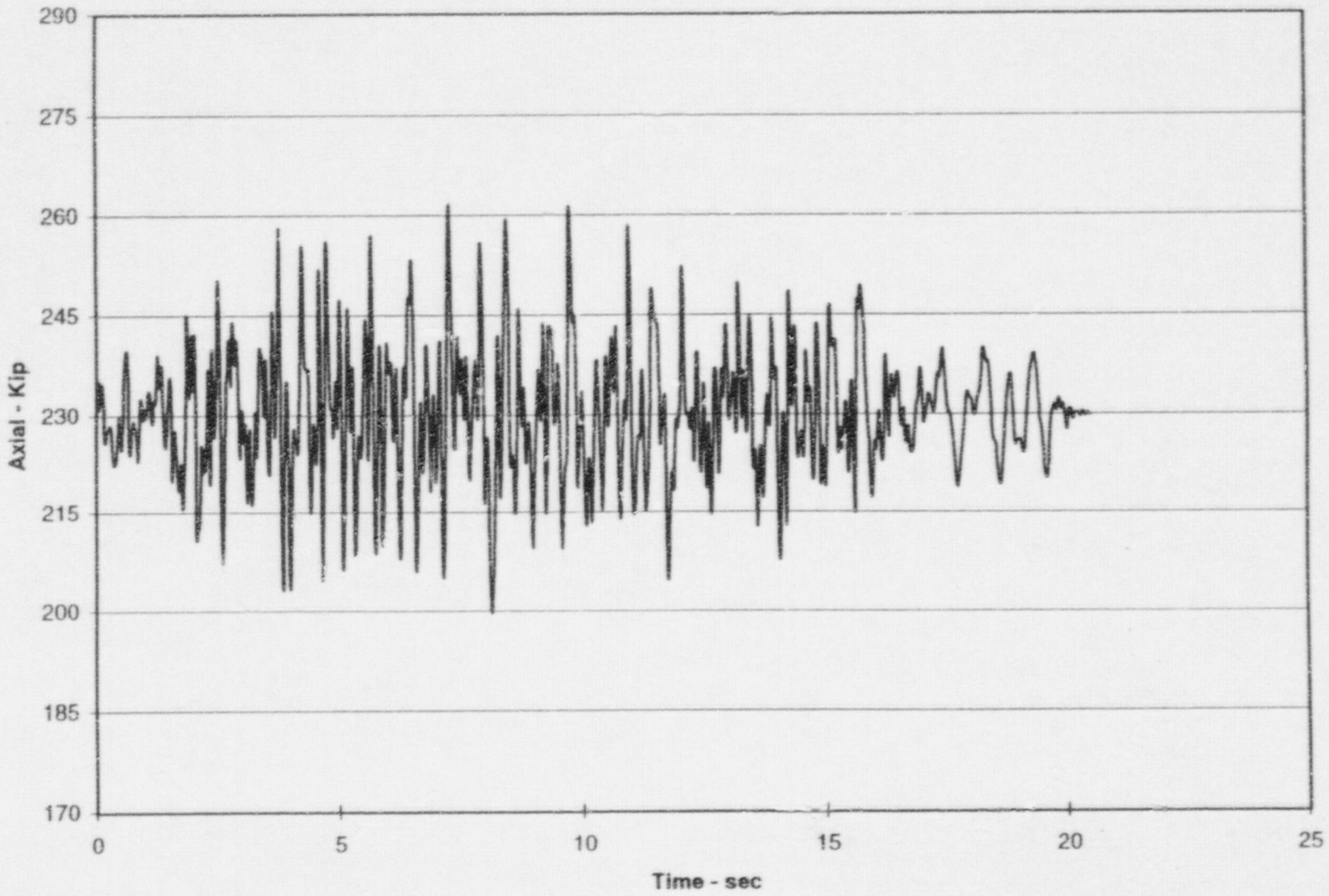

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Figure 3-24. Node 235 - Sliding Factor of Safety

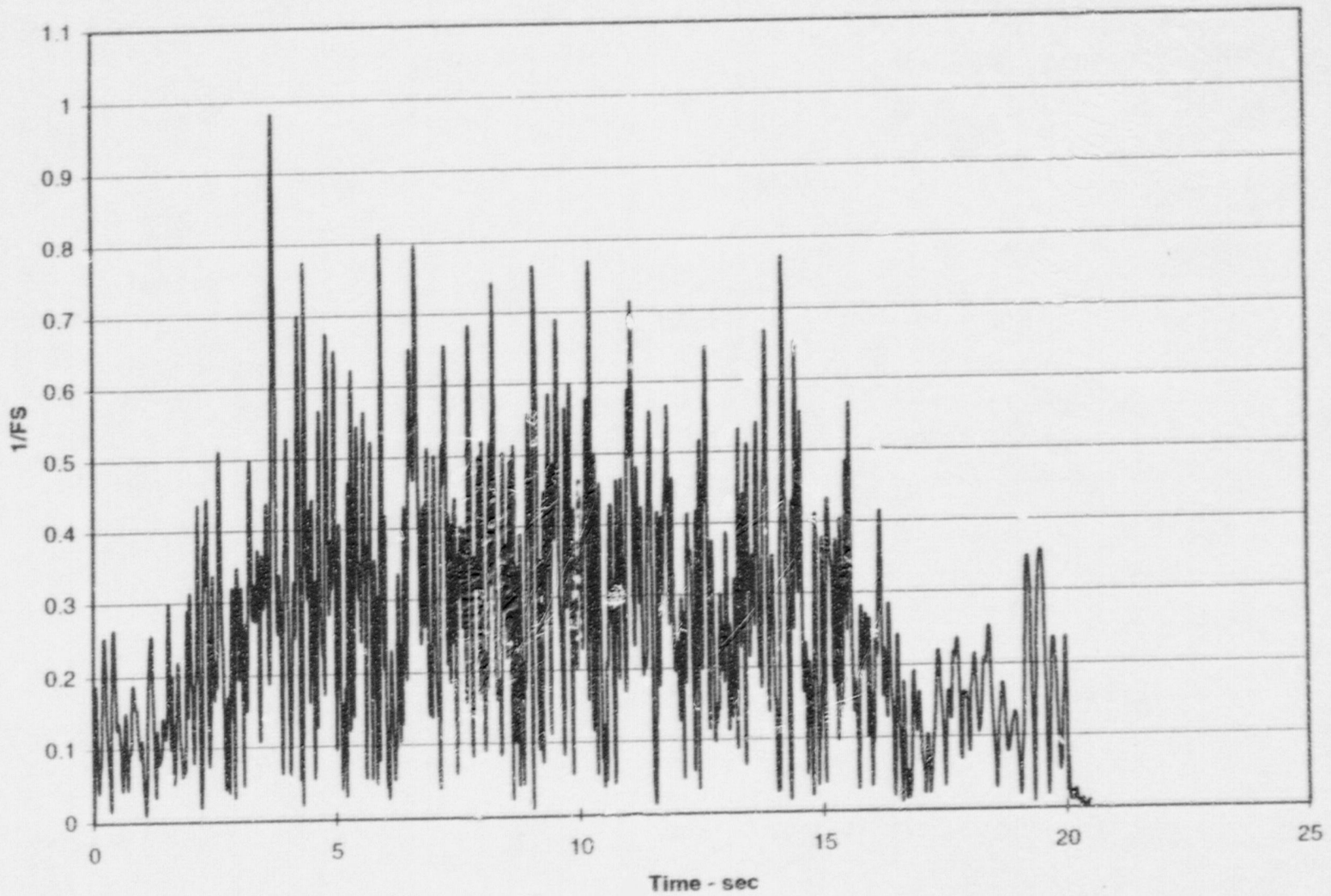

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Figure 3-25. Node 235 - Overturning Factor of Safety

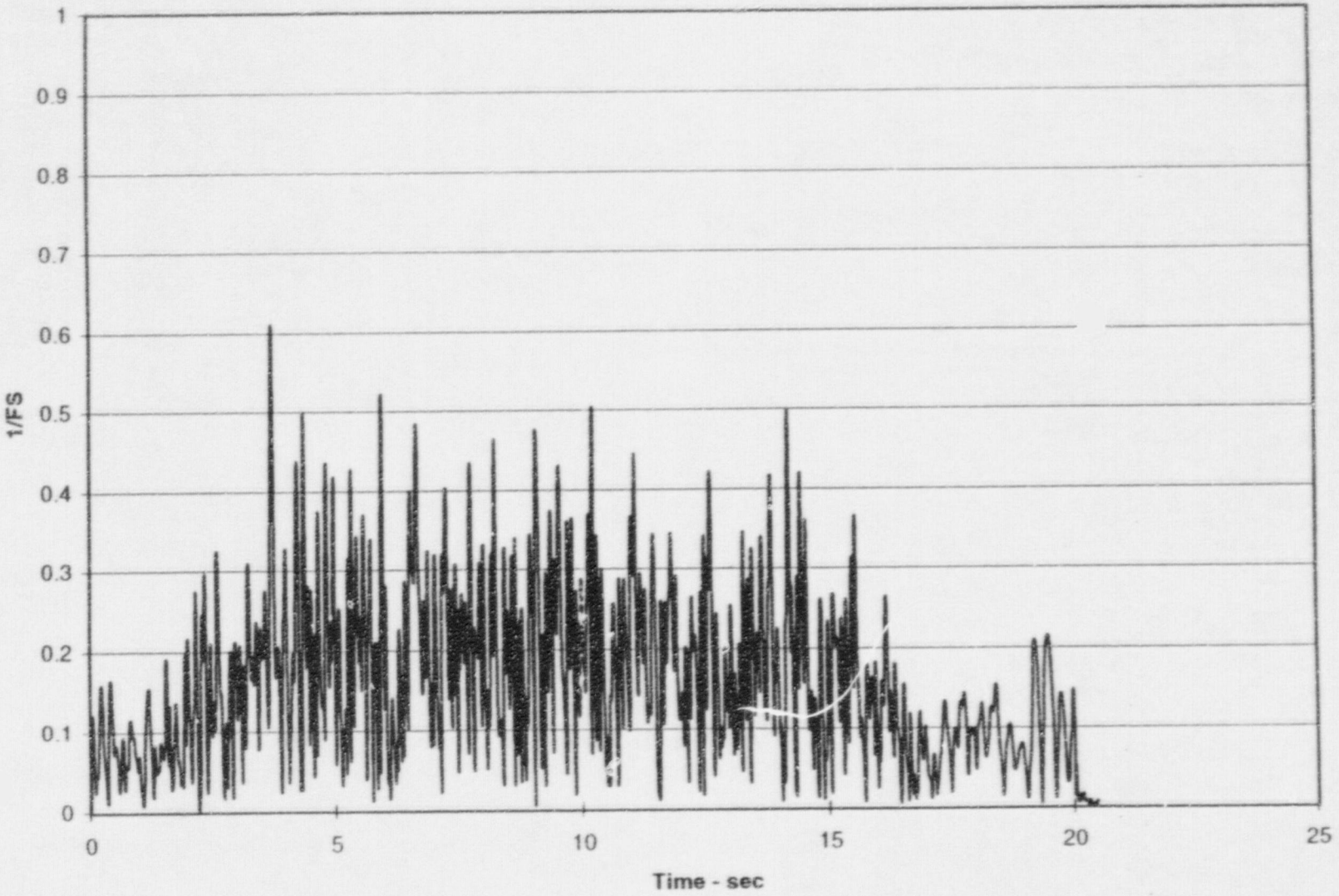
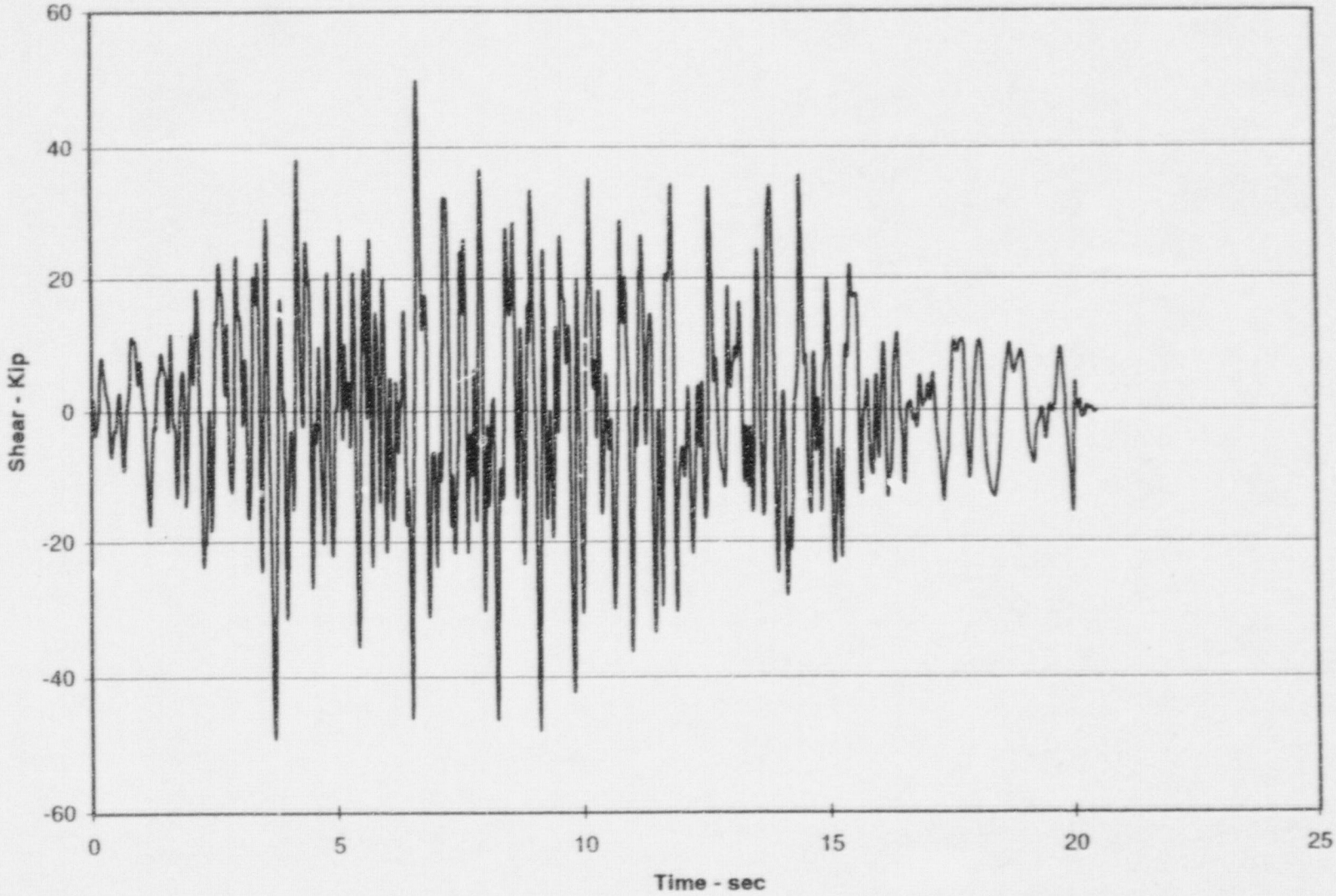


Figure 3-26. Node 236 - Shear X Direction



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CHK: DJD 6/12/97

F.4

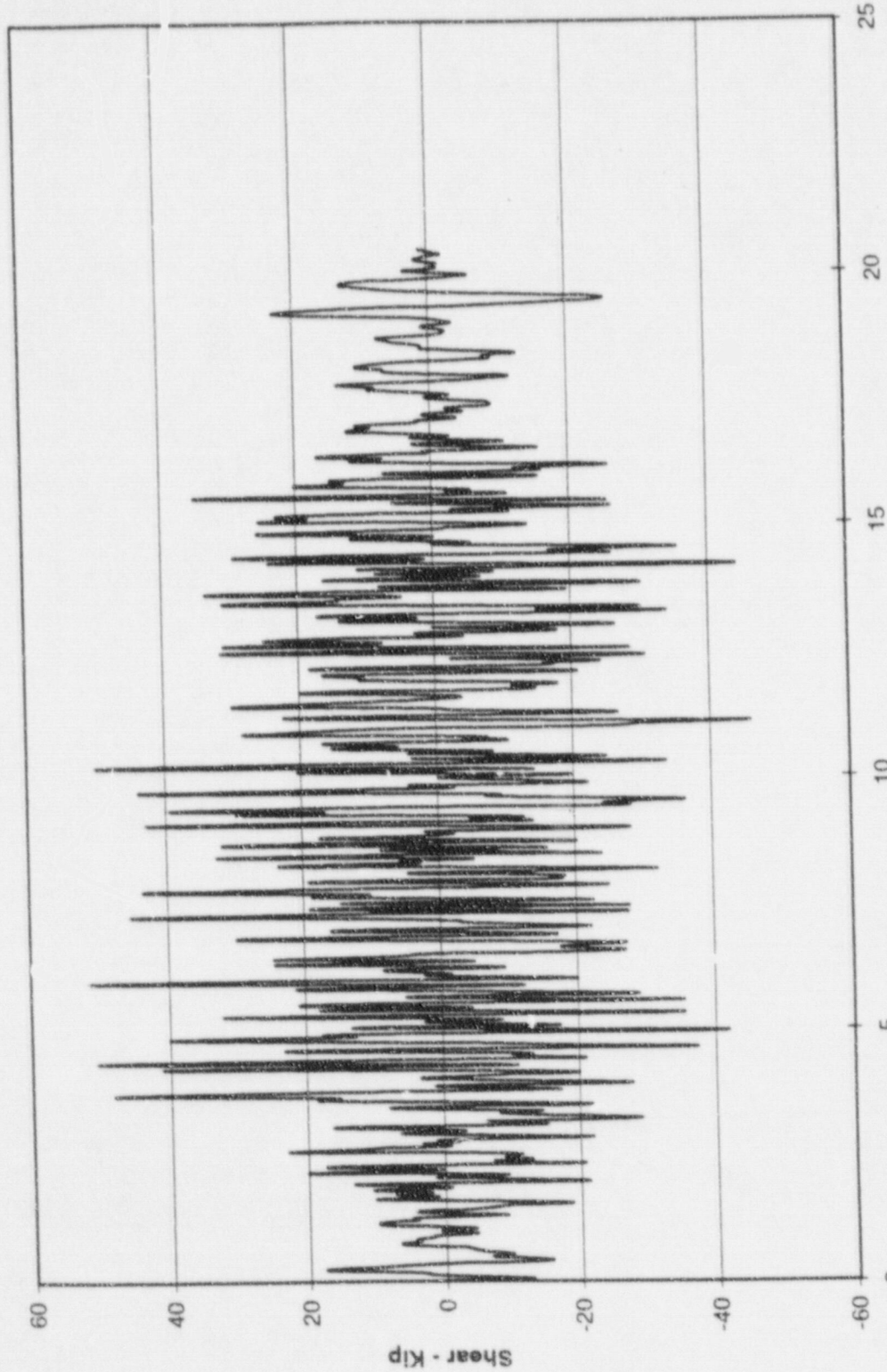


Figure 3-27. Node 236 - Shear Y Direction

Figure 3-28. Node 236 - Axial Load

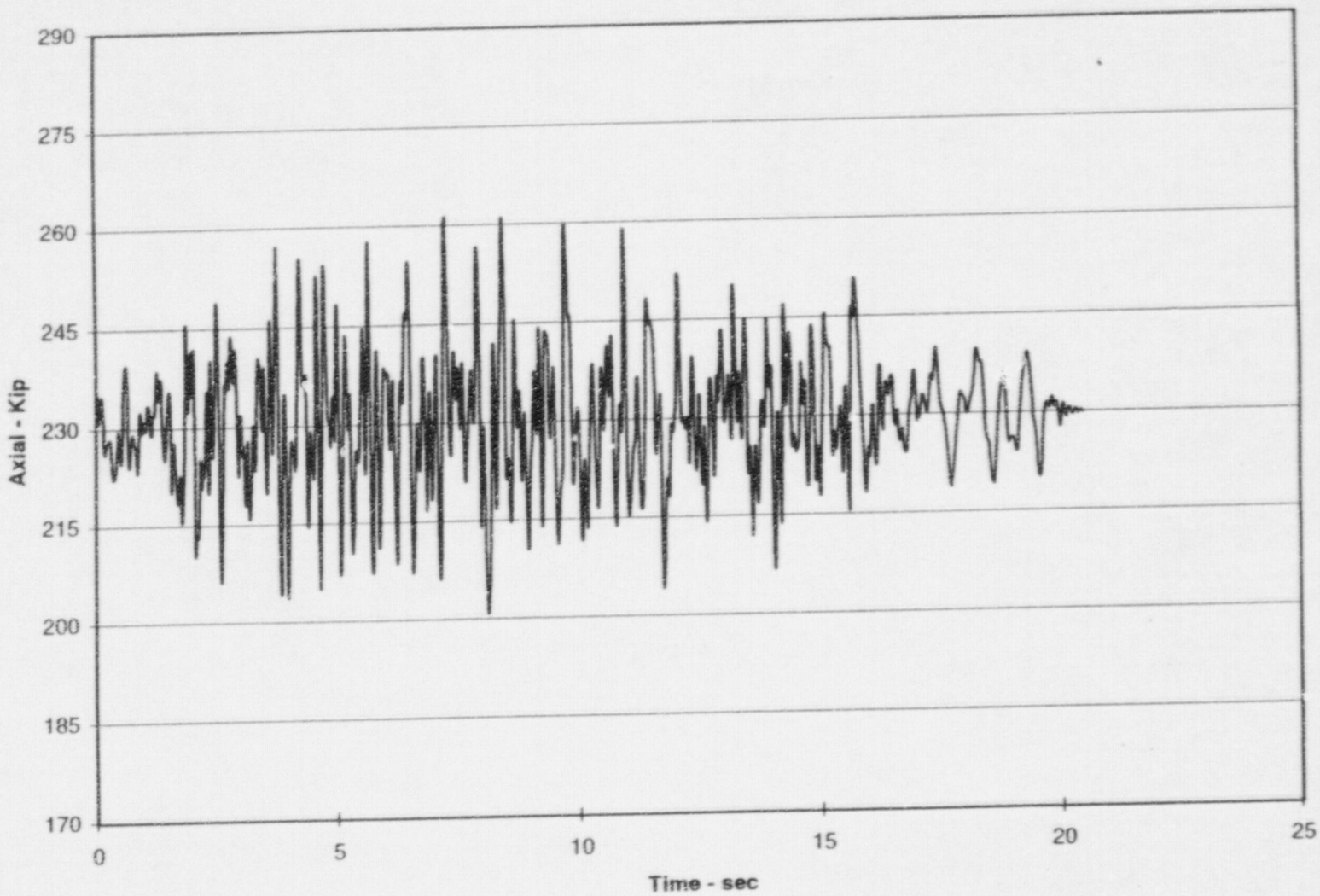
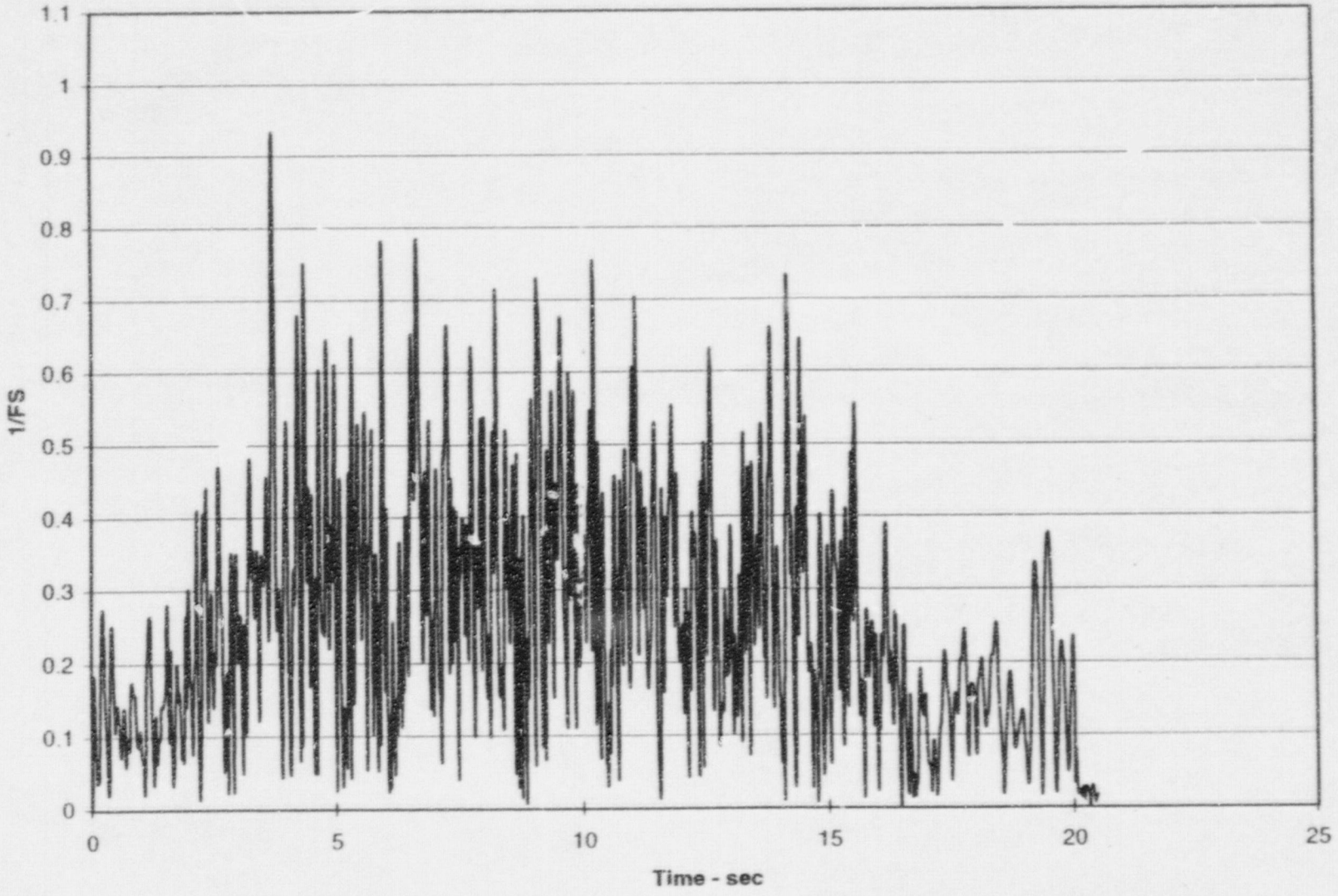
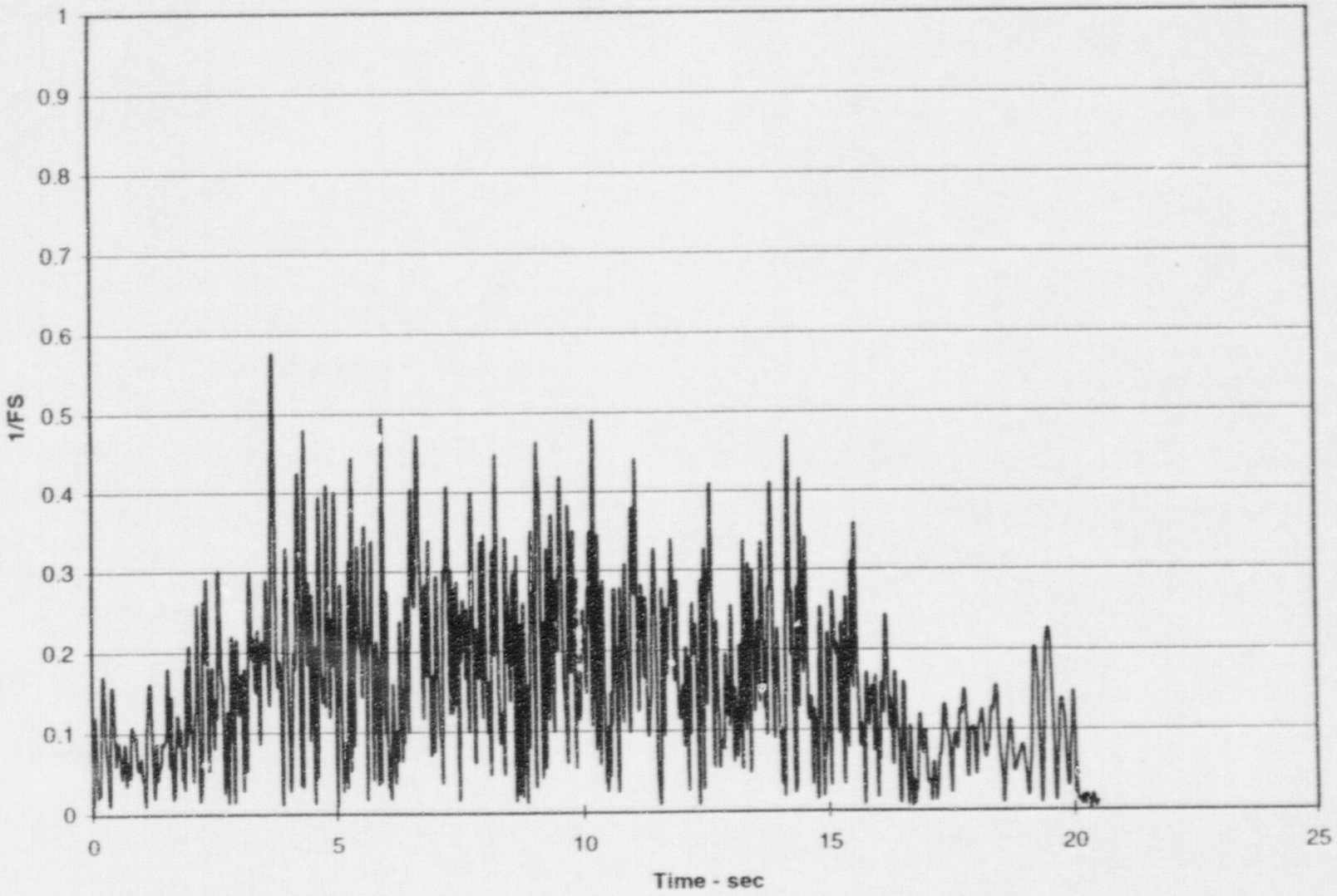


Figure 3-29. Node 236 - Sliding Factor of Safety



BY: APA 6/12/97
CHK: DTD 6/12/97

Figure 3-30. Node 236 - Overturning Factor of Safety



BY: AMA 6/12/97
CHK: DTD 6/12/97

BY: APA 6/12/97
CHK: DJD 6/12/97

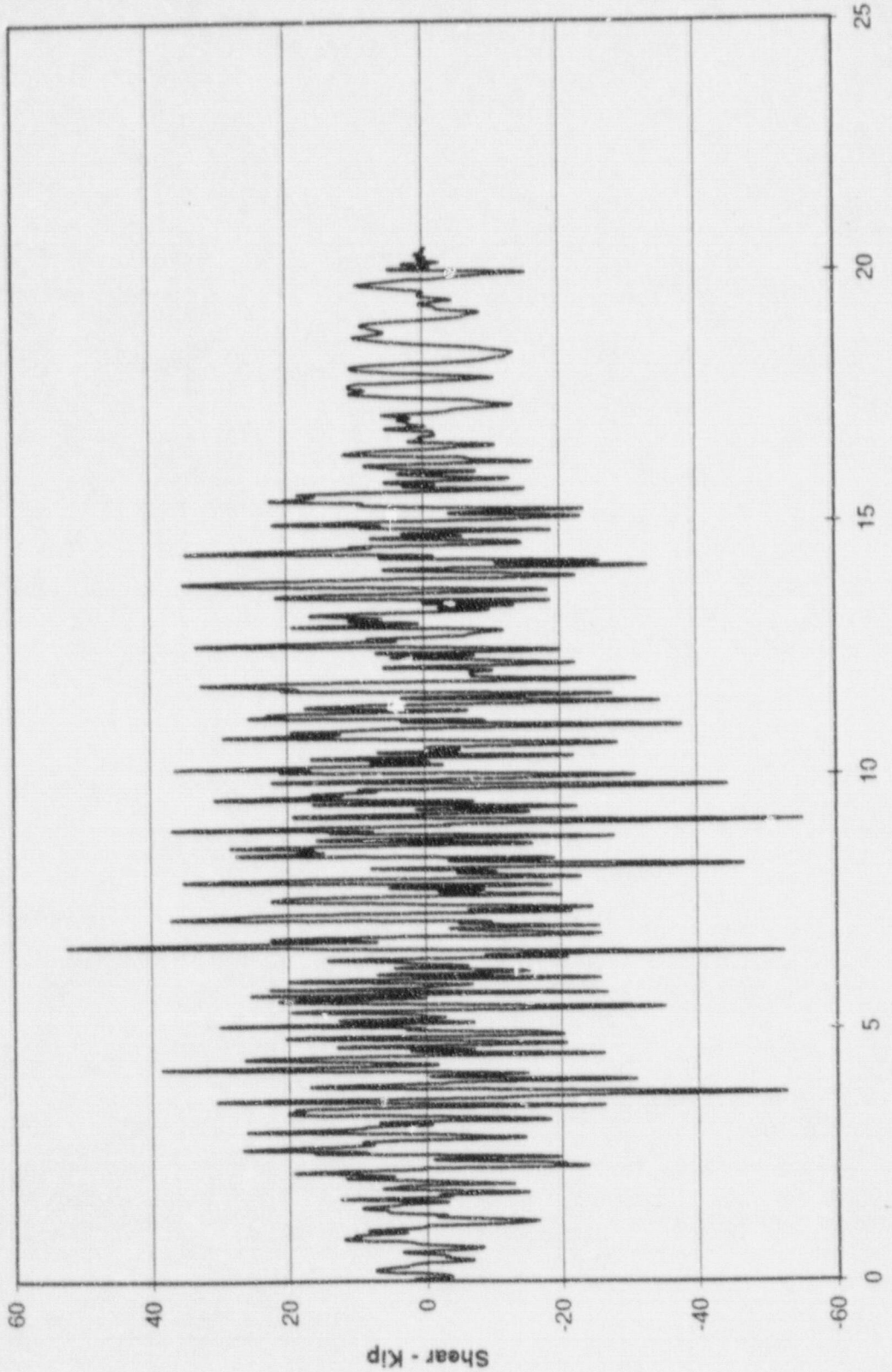


Figure 3-31. Node 237 - Shear X Direction

Channel (3)

1000 51-C-04
BY: APA 6/12/97
CHK: DJD 6/12/97

P.44

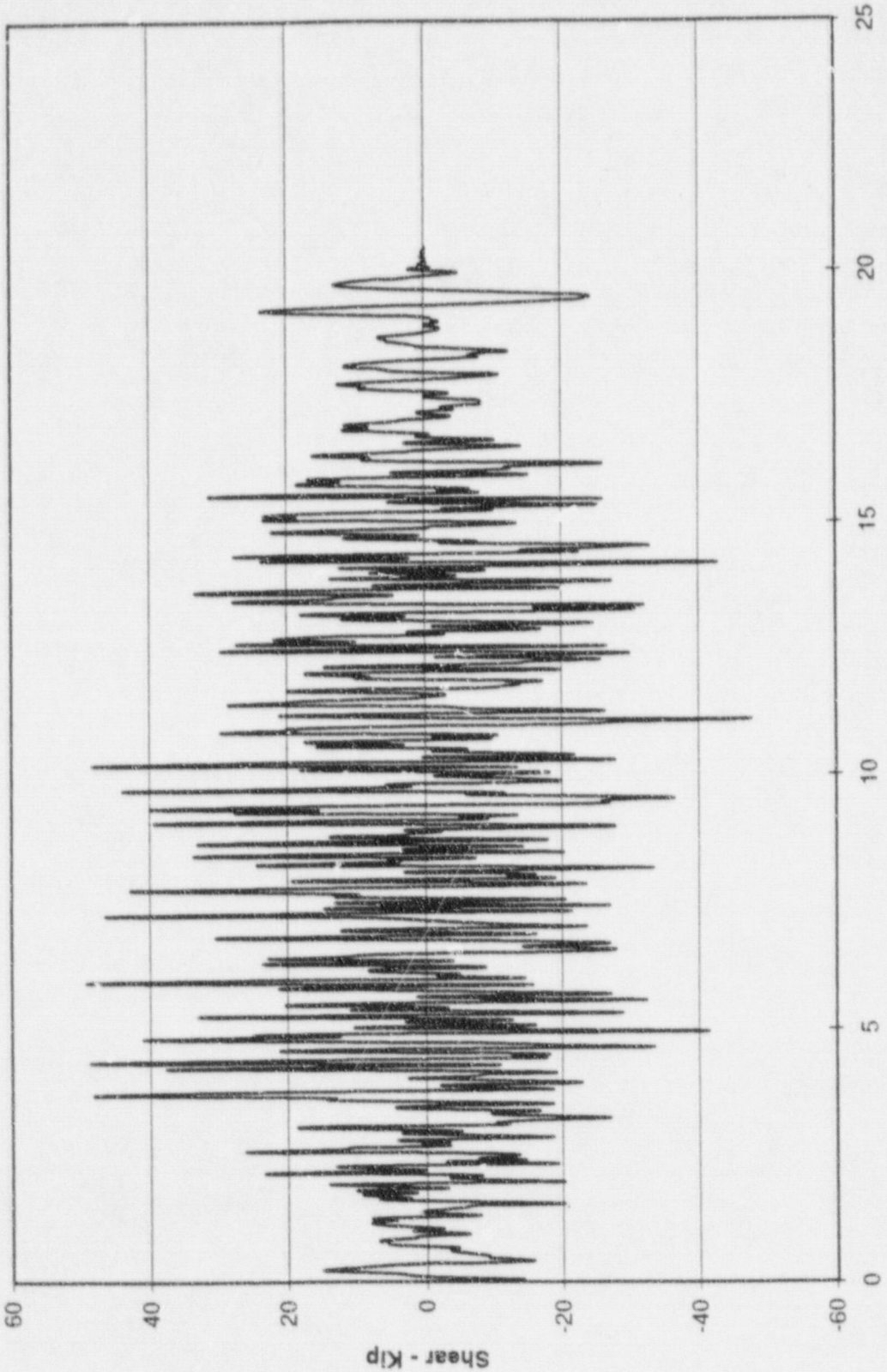


Figure 3-32. Node 237 - Shear Y Direction

C. .1 (4)

Figure 3-33. Node 237 - Axial Load

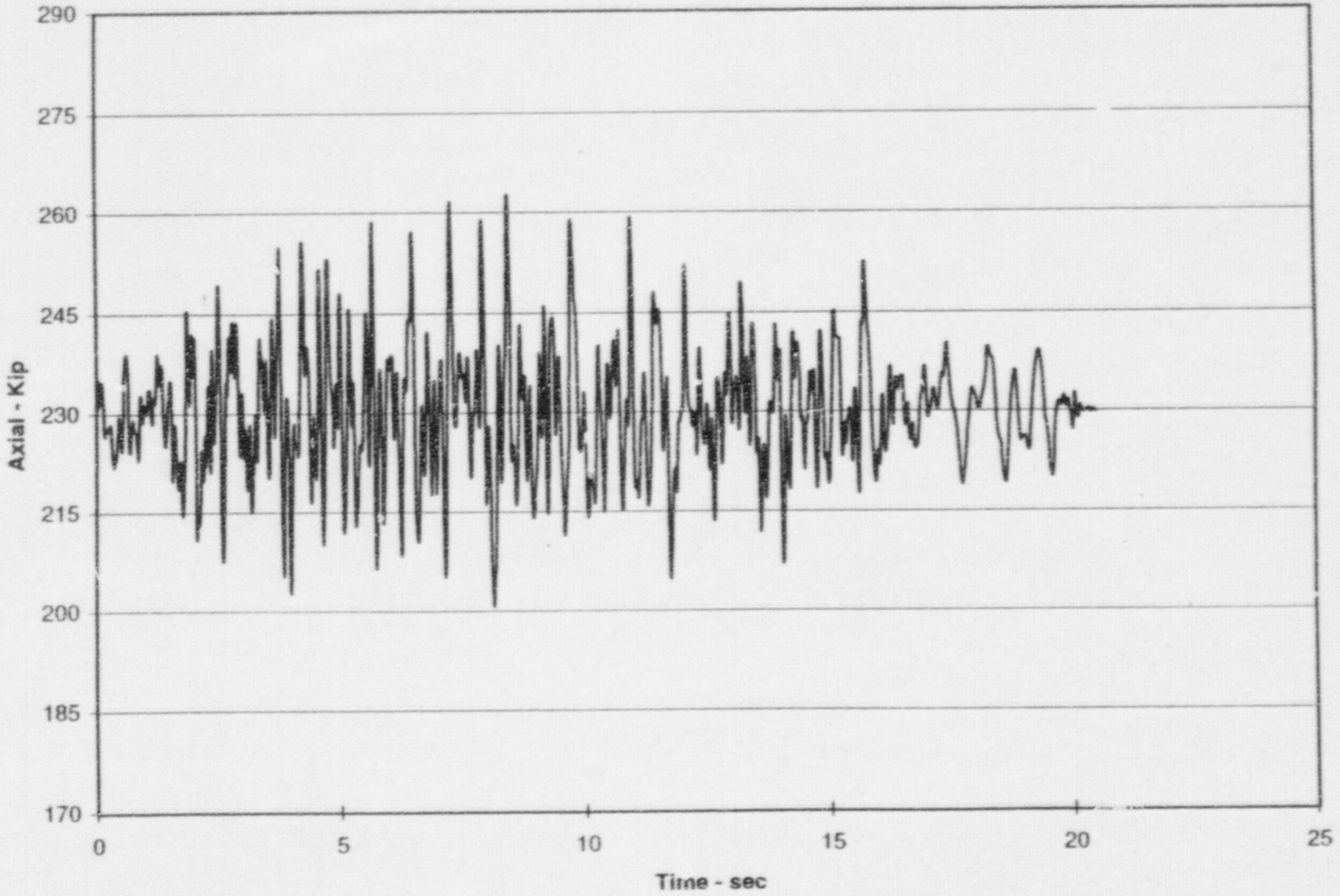


Figure 3-34. Node 237 - Sliding Factor of Safety

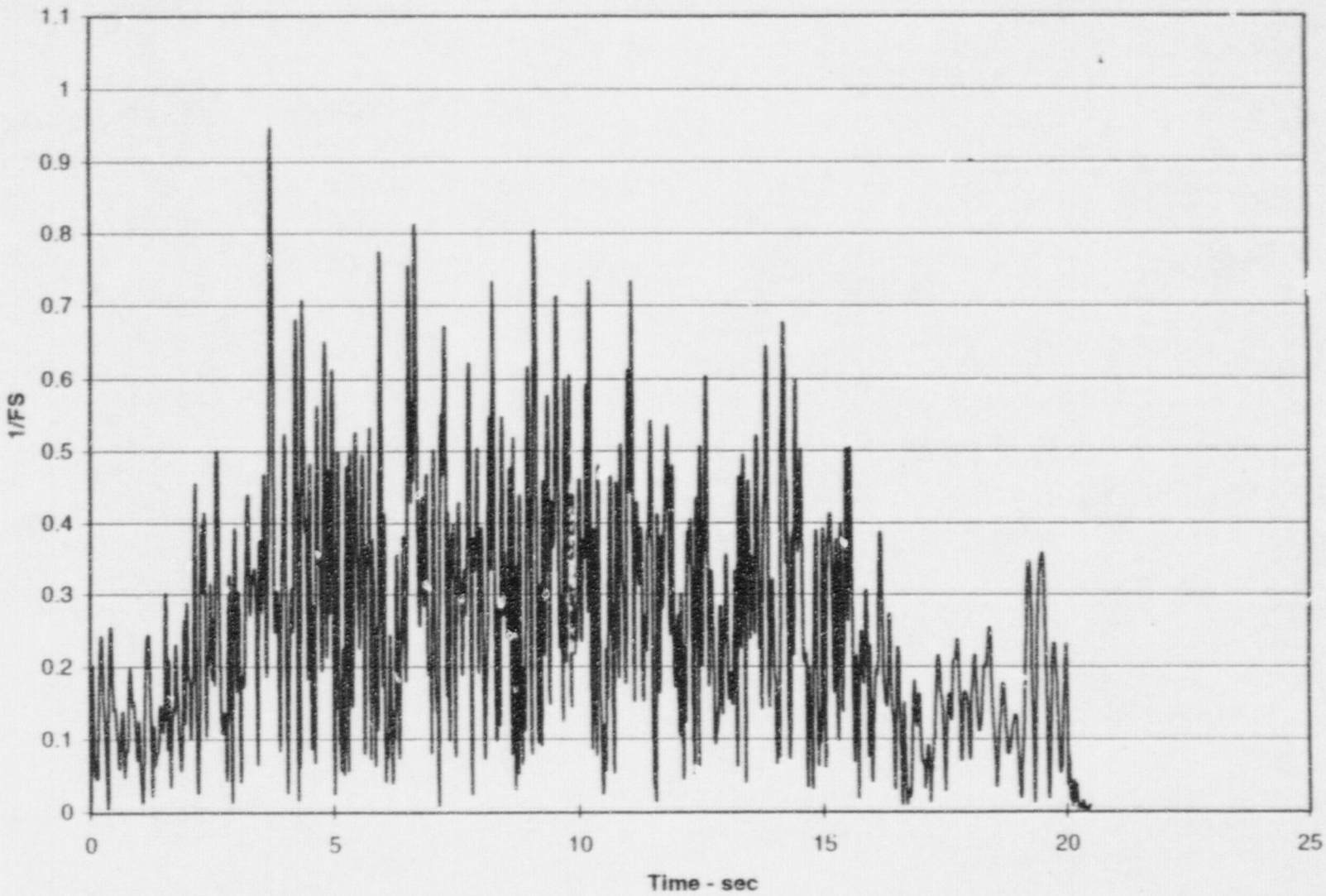
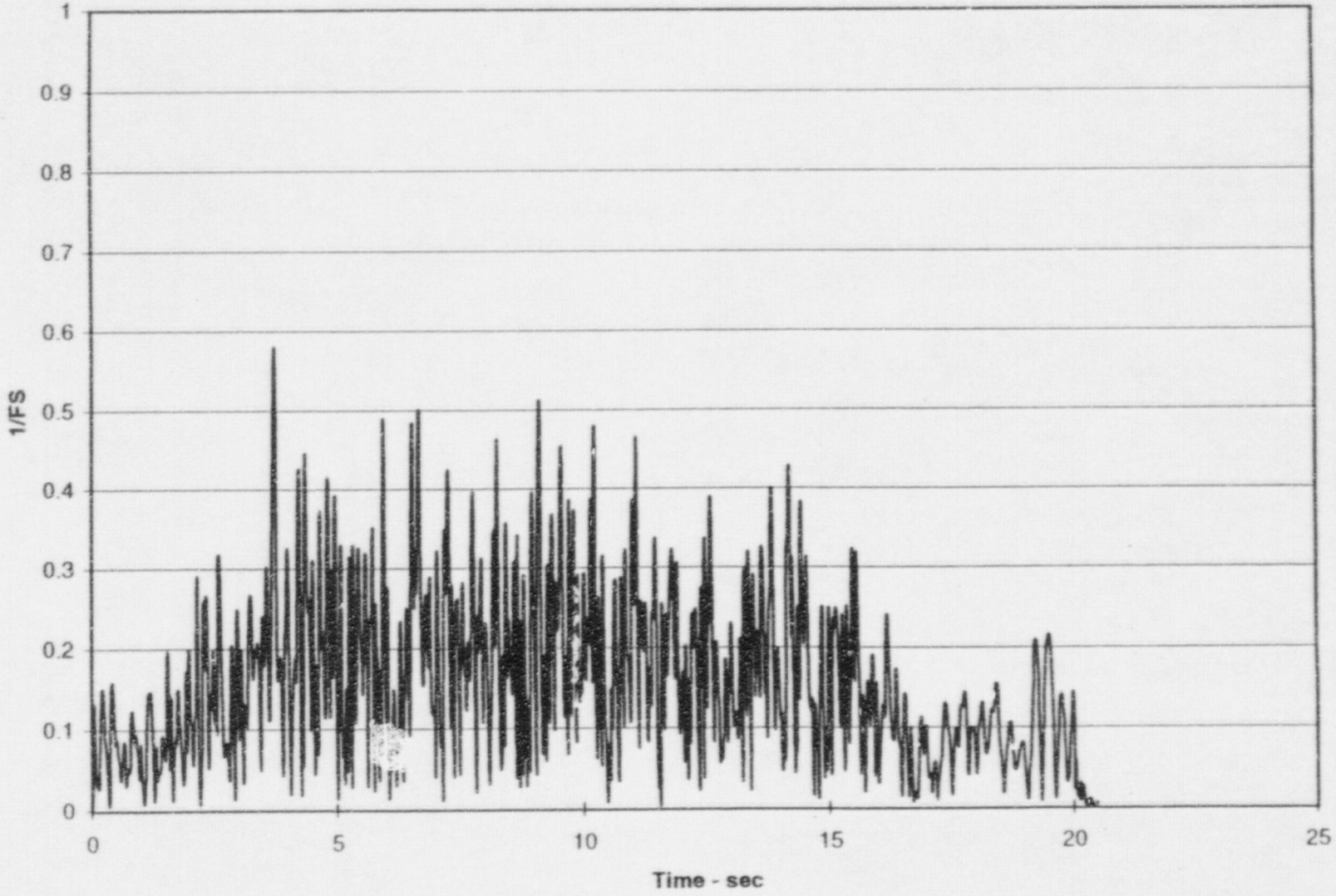


Figure 3-35. Node 237 - Overturning Factor of Safety



4.0 References

1. SUPER SASSI/PC Complete Dynamic Soil-Structure Interaction Analysis System on Personal Computers. May 1996.

2. EQE Calculation 100031-C-06 Rev 0, June 1997, Project Specific Verification of Computer Code SUPER SASSI/PC.

3. EQE Calculation 100031-C-03 Rev 0, June 1997, Pad Model and Input to Module HOUSE.

4. EQE Calculation 100031-C-01 Rev 0, June 1997, Development of Soil Profile.

5. ASCE Standard 4-86. Seismic Analysis of Safety-Related Nuclear Structures and Commentary on Standard for seismic Analysis of Safety-Related Nuclear Structures, September 1986.

ATTACHMENT A

COMPUTER INPUT AND OUTPUT FILES

File Name	Description	Pages	Date
analysx	Input to ANALYS, x direction	1	5/09/97 15:13
analysx.out	Output of ANALYS, x direction	2	5/13/97 20:57
motionx	Input to MOTION, x direction	3	5/13/97 11:39
mxred.out	Output* of MOTION, x direction	7	6/06/97 10:10
analysy	Input to ANALYS, y direction	1	5/09/97 15:13
analysy.out	Output of ANALYS, y direction	2	5/13/97 23:59
motiony	Input to MOTION, y direction	3	5/13/97 10:55
myred.out	Output* of MOTION, y direction	7	6/06/97 10:01
analysz	Input to ANALYS, z direction	1	5/09/97 15:14
analysz.out	Output of ANALYS, z direction	2	5/14/97 03:15
motionz	Input to MOTION, z direction	3	5/13/97 10:56
mzred.out	Output* of MOTION, z direction	8	6/06/97 10:19

* Time histories have been deleted for printing purposes. The complete files (zipped) are in included diskettes.

TOTAL PAGES, INCLUDING COVER SHEET **41 Sheets**

Note: Signature at the top of this sheet signifies that all contained documents have been verified.

File: A:\X\ANALYSX Page: 1

```
1   100031-C-04 North Anna ISFSI Pad Analysis - Analys X
1   1   [illegible]
-505.9   [illegible]   [illegible]   [illegible]
```

File: A:\EXAMALYSX.OUT Page: 1

```
**************************************************************
*                          SUPER                             *
*                        S A S S I                           *
*                                                            *
*                 PROGRAM MODULE ANALYSIS                    *
*                 INSTALLATION - MARCH 1992                  *
*                                                            *
*                 SASSI DEVELOPMENT TEAM                     *
*                     JOHN LYSMER                            *
*                     FARHANG OSTADAN                        *
*                     MANSOUR TABATABAIE                     *
*                     FREDRICK TAJIRIAN                      *
*                     SHAHRIAR VAHDANI                       *
*                                                            *
* ***  SUPER SASSI PC-VERSION BY DAN M. GHIOCEL  ***         *
*            STEVENSON & ASSOCIATES INC                      *
*       9217 MIDWEST AVE., CLEVELAND, OHIO 44125             *
*                                                            *
**************************************************************
```

IANALIS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

G E N E R A L   C O N T R O L   I N F O R M A T I O N

OPERATION MODE = 1

TYPE OF ANALYSIS = 1
MODE OF ANALYSIS = 1
DATA SAVE OPTION = 0
NO. OF FREQUENCIES = 0
PRINT OPTION = 0
EQUIVALENT IMPEDANCE OPTION= 0

IANALIS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
11	0.4883E+00	0.3068E+01	0.2048E+01
21	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1872E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9524E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

IANALIS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

File: A:\EXAMALYSX.OUT Page: 2

C O N T R O L   M O T I O N   I N F O R M A T I O N

X-COORDINATE OF CONTROL POINT = -500.00
Z-COORDINATE OF CONTROL POINT = 0.00
INCIDENT SEISMIC WAVE ANGLE = 90.00
INCOHERENT MOTION OPTION = 0

IANALIS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

-- TAPE 1 ----------

100031-C-04 North Anna ISFSI Pad Analysis - Mode 2 - Horizontal

C O N T R O L   M O T I O N   D A T A

ACCELERATION OF GRAVITY = 32.20
NUMBER OF TOTAL LAYERS IN SITE = 33

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
11	0.4883E+00	0.3068E+01	0.2048E+01
21	0.9766E+00	0.6134E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2514E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9524E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7024E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	[illegible]
349	0.1802E+02	0.1132E+03	[illegible]
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	[illegible]
512	0.2500E+02	0.1571E+03	[illegible]
553	0.2700E+02	0.1697E+03	[illegible]
614	0.2998E+02	0.1884E+03	[illegible]

IANALIS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

-- TAPE 4 ----------

100031-C-03 North Anna ISFSI Pad Analysis - House X

G E N E R A L   C O N T R O L   I N F O R M A T I O N

NUMBER OF NODAL POINTS = 238
NUMBER OF AT/BELOW GRADE POINTS = 195
NUMBER OF INTERFACE POINTS = 195
NUMBER OF INTERMEDIATE POINTS = 0

NUMBER OF SYM/ANTI-SYM PLANES = 2

ACCELERATION OF GRAVITY = 32.20
Z-COORDINATE OF GROUND LEVEL = 0.00
DIMENSION OF ANALYSIS = 3

B L O C K   S T O R A G E   I N F O R M A T I O N

MAXIMUM NUMBER OF TERMS IN A BLOCK = [illegible]
MAXIMUM NUMBER OF COLUMNS IN A BLOCK = 8292
NUMBER OF EQUATIONS IN STRUCTURAL SYSTEM = 8292
NUMBER OF EQUATIONS IN EXCAVATED SOIL SYSTEM = 537

NUMBER OF BLOCKS IN STIFFNESS OF STRUCTURE = 1
NUMBER OF BLOCKS IN STIFFNESS OF EXCAVATED SOIL = 1
NUMBER OF BLOCKS IN F23 OF EXCAVATED SOIL = 0

MAXIMUM CORE SPACE USED IN HOUSE = [illegible]

SANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

-- TAPE 3 --

100031-C-02 North Anna ISFSI Pad Analysis - Point

F L E X I B I L I T Y / I M P E D A N C E D A T A

ACCELERATION OF GRAVITY = 32.20
MAX. NUMBER OF LAYER INTERFACE = 1
RADIUS OF CENTRAL ELEMENT IN POINT = 3.42
NUMBER OF DOF IN TRANS. BOUNDARY = 66
DIMENSION OF ANALYSIS = 3

F R E Q U E N C I E S O F A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1872E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9526E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7134E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

SANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

C O M P U T E D F R E Q U E N C I E S

FREQUENCY NUMBER	FREQUENCY (HZ)	TIME
2	0.9766E-01	5.37
10	0.4883E+00	5.36
20	0.9766E+00	5.39
41	0.2002E+01	5.38
61	0.2979E+01	5.44
82	0.4004E+01	5.44
102	0.4980E+01	5.37
123	0.6006E+01	5.48
143	0.6982E+01	5.47
164	0.8008E+01	5.43
166	0.8105E+01	5.47

174	0.8496E+01	5.45
181	0.8838E+01	5.57
184	0.8984E+01	5.55
195	0.9521E+01	5.56
205	0.1001E+02	5.55
215	0.1050E+02	5.58
221	0.1079E+02	5.54
225	0.1099E+02	5.56
229	0.1118E+02	5.58
234	0.1143E+02	5.54
246	0.1201E+02	5.59
266	0.1299E+02	5.54
287	0.1401E+02	5.55
307	0.1499E+02	5.73
328	0.1602E+02	5.42
369	0.1802E+02	5.44
393	0.1919E+02	5.48
401	0.1958E+02	5.45
410	0.2002E+02	5.57
418	0.2041E+02	5.53
471	0.2300E+02	5.58
512	0.2500E+02	5.53
553	0.2700E+02	5.54
614	0.2998E+02	5.62

SANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

O V E R A L L T I M E L O G

INPUT DATA FROM CARDS AND TAPES	=	2.87
FORM (K-W*W*M) FOR F21	=	2.02
FORM FLEXIBILITY MATRIX	=	48.87
FORM IMPEDANCE MATRIX	=	58.58
FORM (K-W*W*M) FOR EXCAVATED SOIL	=	0.22
FORM (K-W*W*M) FOR STRUCTURE	=	18.45
FLAN (K-W*W*M)+(IMPEDANCE MATRIX) AND REDUCE	=	44.24
FORM FREE FIELD MOTION	=	0.02
FORM (IMPEDANCE MATRIX)*(F.F.MOTION)=LOAD VECTOR	=	15.52
SOLVE FOR TRANSFER FUNCTIONS	=	13.96
CREATE FINAL TRANSFER FUNCTION TAPE	=	0.25
PRINT ALL TRANSFER FUNCTIONS	=	0.02
TOTAL SOLUTION TIME	=	192.82

SPOINT2 - 100031-C-04 North Anna ISFSI Pad Analysis - Analys X

O U T P U T T A P E I N F O R M A T I O N

LOGICAL TAPE WRITTEN	=	TAPE 5
TOTAL NO. OF WORDS	=	65173740
TOTAL NO. OF RECORDS	=	75
TOTAL NO. OF SECTORS	=	127293
LOGICAL TAPE WRITTEN	=	TAPE 8
TOTAL NO. OF WORDS	=	182372
TOTAL NO. OF RECORDS	=	1297
TOTAL NO. OF SECTORS	=	357

```
   1   100031-C-04 North Anna ISFSI Pad Analysis - Motion 1
   1   14    5    1     20.48
 198    010001    010001    010001    010001    010001    010001
 203    010001    010001    010001    010001    010001    010001
 208    010001    010001    010001    010001    010001    010001
 213    010001    010001    010001    010001    010001    010001
 218    010001    010001    010001    010001    010001    010001
 223    010001    010001    010001    010001    010001    010001
 228    010001    010001    010001    010001    010001    010001
 231    010001    010001    010001    010001    010001    010001
 232    010001    010001    010001    010001    010001    010001
 233    010001    010001    010001    010001    010001    010001
 234    010001    010001    010001    010001    010001    010001
 235    010001    010001    010001    010001    010001    010001
 236    010001    010001    010001    010001    010001    010001
 237    010001    010001    010001    010001    010001    010001
 2048 2000       0.01       1.0
Synthetic DBE (soil t.h. zpa=0.179 g's, dt=.01, HORIZONTAL Dir.
-0.007433-0.005651-0.002407 0.002362 0.006909 0.010140 0.011766 0.012568
 0.012839 0.012377 0.010311 0.006346 0.000651-0.005798-0.012278-0.018060
-0.022904-0.026356-0.028264-0.028411-0.027193-0.024987-0.022453-0.019821
-0.017395-0.015122-0.013228-0.011712-0.010821-0.010390-0.010273-0.009767
-0.008273-0.005042-0.000057 0.006329 0.012948 0.018708 0.022500 0.024043
 0.023426 0.021499 0.019035 0.016956 0.015559 0.014979 0.014724 0.014400
 0.013368 0.011442 0.008420 0.004651 0.000454-0.003419-0.006404-0.007730
-0.007060-0.004072 0.000943 0.007622 0.015033 0.022318 0.028294 0.032150
 0.033101 0.031090 0.026362 0.019962 0.012989 0.006771 0.001952-0.001240
-0.003515-0.005712-0.008891-0.013379-0.019182-0.025164-0.030735-0.034940
-0.037687-0.039168-0.040170-0.041192-0.042640-0.044159-0.045253-0.045038
-0.043142-0.039452-0.034759-0.030028-0.026573-0.025063-0.025728-0.027766
-0.030109-0.031368-0.030818-0.028146-0.023977-0.019043-0.014317-0.010133
-0.006583-0.003095 0.000760 0.005518 0.011150 0.017628 0.024552 0.031032
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 0.052393 0.043382 0.034272 0.026620 0.021259 0.018529 0.017653 0.017453
 0.016290 0.013214 0.007890 0.001209-0.005660-0.011393-0.015631-0.018561
-0.021142-0.024009-0.027516-0.031101-0.034053-0.035475-0.035223-0.033548
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 0.003936 0.007986 0.006314-0.001288-0.013233-0.026153-0.036462-0.041094
-0.039053-0.031102-0.019963-0.008685 0.000001 0.005167 0.007472 0.009140
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 0.024641 0.012818 0.003550-0.002897-0.007259-0.010688-0.014323-0.017866
-0.019899-0.017960-0.010370 0.003073 0.019967 0.036447 0.048125 0.052298
 0.048440 0.038443 0.025044 0.010895-0.002698-0.015187-0.026565-0.036085
-0.042661-0.044709-0.041793-0.034237-0.024730-0.016242-0.011921-0.013589
-0.021613-0.034577-0.050089-0.064810-0.075508-0.079278-0.074977-0.063394
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 0.046255 0.063882 0.075610 0.080605 0.080864 0.080113 0.080851 0.083202
 0.084361 0.080781 0.070056 0.053120 0.033970 0.018686 0.012380 0.017670
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-0.002246-0.023513-0.037494-0.044358-0.046982-0.048932-0.053292-0.060763
-0.069864-0.077557-0.081493-0.080934-0.077604-0.074045-0.072495-0.072977
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-0.067217-0.060343-0.056870-0.056242-0.056048-0.053022-0.045327-0.033286
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 0.073338 0.071153 0.060119 0.040548 0.014986-0.012099-0.036423-0.054634
-0.065562-0.069581-0.068652-0.065352-0.062661-0.062880-0.067110-0.074516
-0.082836-0.088368-0.087689-0.077799-0.057837-0.029059 0.004402 0.036835
 0.062072 0.075895 0.077031 0.067067 0.048689 0.024377-0.004457-0.036016
-0.067138-0.092312-0.105728-0.103326-0.085828-0.058167-0.028063-0.002109
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 0.148620 0.165375 0.175970 0.179386 0.175032 0.163113 0.144554 0.121511
 0.096486 0.071951 0.048950 0.027566 0.007220-0.011306-0.025669-0.032392
```



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-0.029621-0.018816-0.005544 0.003535 0.004103-0.002371-0.009283-0.008518
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 0.054299 0.042898 0.034353 0.027552 0.022551 0.021816 0.027729 0.041993
 0.058746 0.074685 0.081879 0.075550 0.054856 0.022678-0.016185-0.056447
-0.093603-0.123498-0.142776-0.148601-0.140629-0.120736-0.093869-0.065711
-0.041323-0.023137-0.011199-0.004069-0.000690-0.001546-0.008728-0.023665
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-0.082029-0.081959-0.075916-0.058056-0.027549 0.010851 0.047767 0.073738
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 0.017252 0.012335 0.001687-0.011110-0.021295-0.024441-0.019005-0.006239
 0.009952 0.025362 0.037029 0.044687 0.050049 0.055580 0.061913 0.067220
 0.067059 0.057135 0.035538 0.004979-0.027965-0.054784-0.068749-0.067817
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-0.079344-0.074802-0.059342-0.033431 0.000159 0.036287 0.067309 0.085895
 0.087572 0.073121 0.048241 0.021411 0.000093-0.011325-0.012790-0.006458
 0.004795 0.019282 0.035551 0.051653 0.063842 0.067834 0.060713 0.043461
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-0.048598-0.060268-0.056421-0.036169-0.005814 0.025044 0.047608 0.057853
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 0.145066 0.165781 0.173318 0.164293 0.139842 0.105591 0.068943 0.035736
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-0.035128 0.002014 0.040619 0.075212 0.100605 0.113724 0.114037 0.104124
 0.088440 0.071749 0.057129 0.045378 0.035377 0.026413 0.019357 0.017421
 0.023664 0.039339 0.061476 0.083845 0.098911 0.101536 0.091175 0.072281
 0.052022 0.037523 0.032480 0.036151 0.043222 0.046567 0.039750 0.020273
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-0.065768-0.064919-0.072552-0.086243-0.098590-0.100684-0.087284-0.058890
-0.022141 0.013903 0.040923 0.054701 0.055364 0.046368 0.035151 0.025414
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 0.079566 0.054749 0.031156 0.016100 0.012117 0.017254 0.026190 0.033621
 0.036314 0.034423 0.030026 0.025393 0.020934 0.015710 0.008855 0.002383
 0.001199 0.011774 0.037438 0.076386 0.120228 0.157782 0.179285 0.170308
 0.163037 0.134642 0.103699 0.077384 0.059103 0.049303 0.046012 0.047349
 0.051710 0.057993 0.064024 0.066454 0.061011 0.044862 0.018274-0.014379
-0.046167-0.072257-0.083225-0.085852-0.082569-0.078347-0.076546-0.076961
-0.077207-0.074617-0.069397-0.064666-0.065447-0.074977-0.092363-0.111681
-0.124795-0.124157-0.108011-0.079345-0.045270-0.012860 0.012991 0.030869
 0.041343 0.044904 0.040680 0.027524 0.005848-0.020187-0.043436-0.055672
-0.051888-0.031974-0.001602 0.031267 0.059175 0.078039 0.086894 0.086535
 0.077716 0.060667 0.036033 0.007068-0.020489-0.039782-0.047279-0.044911
-0.040673-0.043848-0.059646-0.085037-0.110042-0.122867-0.117364-0.095666
-0.067497-0.043481-0.029827-0.025487-0.024526-0.020010-0.008065 0.011906
 0.038120 0.068896 0.102523 0.136831 0.167487 0.178678 0.174745 0.172679
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File: A:\X\MOTIONX Page: 4

File: A:\E\MOTIONX Page: 5

-0.031525-0.034099-0.036119-0.037465-0.038014-0.037283-0.035313-0.032313
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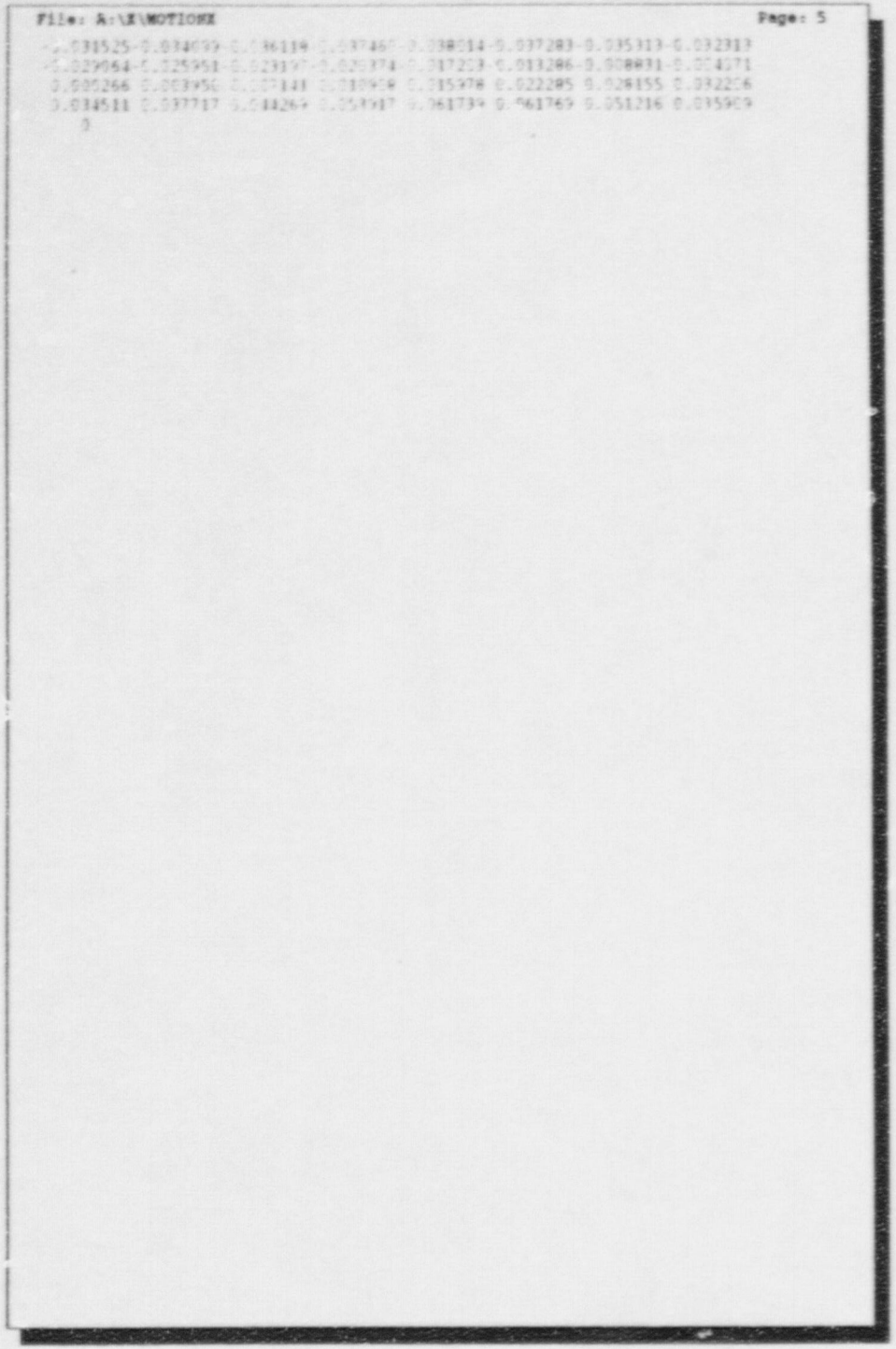
0



1

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***************************************************************
*                          SUPER                              *
*                       S A S S I                             *
*                                                             *
*                                                             *
*                  PROGRAM MODULE MOTION                      *
*                INSTALLATION - MARCH 1994                    *
*                                                             *
*                 SASSI DEVELOPMENT TEAM                      *
*                       JOHN LYSMER                           *
*                    FARHANG OSTADAN                          *
*                   MANSOUR TABATABAIE                        *
*                    FREDRICK TAJIRIAN                        *
*                     SHAHRIAR VAHDANI                        *
*                                                             *
*  ***   SUPER SASSI PC-VERSION BY DAN M. GHIOCEL   ***       *
*               STEVENSON & ASSOCIATES INC                    *
*          9217 MIDWEST AVE., CLEVELAND, OHIO 44125           *
*                                                             *
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1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion ?

G E N E R A L   C O N T R O L   I N F O R M A T I O N

OPERATION MODE	=	1
ANALYSIS TYPE CODE	=	1
TOTAL NUMBER OF OUTPUT POINTS	=	14
TOTAL NUMBER OF DAMPING VALUES	=	1
OUTPUT CODE FOR TIME HISTORIES	=	1
DURATION OF TIME HISTORIES FOR PLOT	=	20.4800

1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion ?

------------------------------ TAPE 8 ------------------------------

100031-C-04 North Anna ISFSI Pad Analysis - Analys ?

G E N E R A L   C O N T R O L   I N F O R M A T I O N

ACCELERATION OF GRAVITY	=	32.2000
TOTAL NUMBER OF MODES	=	238

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES	=	35
FREQUENCY STEP	=	0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5982E+02	0.1050E+00
205	0.1001E+02	0.6290E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9526E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01

512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3704E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion ?

O U T P U T   R E Q U I R E M E N T S

A - PLOT FOURIER AMPLI. FUNCTION
B- SAVE ACCEL. TIME HISTORY ON TAPE
C- PLOT ACCEL. TIME HISTORY
D- PLOT ACCEL. AND VELOC. SPECTRUM
E- SAVE ACCEL. AND VELOC. SPECTRUM ON TAPE
F- PRINT MAXIMUM ACCEL.

N.P.NO.	X-DIRECTION A	B	C	D	E	F	Y-DIRECTION A	B	C	D	E	F	Z-DIRECTION A	B	C	D	E	F
198	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
203	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
208	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
213	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
218	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
223	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
228	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
231	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
232	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
233	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
234	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
235	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
236	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
237	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES

N.P.NO.	XX-DIRECTION A	B	C	D	E	F	YY-DIRECTION A	B	C	D	E	F	ZZ-DIRECTION A	B	C	D	E	F
198	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
203	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
208	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
213	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
218	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
223	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
228	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
231	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
232	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES

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233  [illegible]  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES

234  NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES

235  NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES

236  NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES

237  NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES    NO  YES  NO  NO  NO  YES

1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X
 I N P U T   C O N T R O L   T I M E   H I S T O R Y

    TOTAL NUMBER OF POINTS IN F.F.T.      =        2048
    TOTAL NUMBER OF POINTS TO BE READ     =        2000
    TIME STEP                            =0.100000E-01
    SCALE FACTOR FOR TIME HISTORY        =0.100000E+01
    MAXIMUM VALUE OF TIME HISTORY        =0.200000E+00

    Synthetic DBE (soil) t.h. zpa=0.179 g's. dt=.01, HORIZONTAL Dir.

     -0.007433  -0.005451  -0.002407   0.002362   0.006939   0.010140   0.011766   0.012568        1
1MOTION - 1000

 S C A L E D   C O N T R O L   T I M E   H I S T O R Y

    Synthetic DBE (soil) t.h. zpa=0.179 g's. dt=.01, HORIZONTAL Dir.
    TOTAL NUMBER OF POINTS          =        2048
    TIME STEP                      =0.100000E-01
    TOTAL DURATION OF RECORD       =0.204800E+02
    TOTAL DURATION OF QUIET ZONE   =0.480000E+00
    MAXIMUM VALUE OF TIME HISTORY  =0.179386E+00

     -0.007433  -0.005451  -0.002407   0.002362   0.006939   0.010140   0.011766   0.012568        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

     0.002120 0.004259 0.003884 0.002396-0.000221-0.004692-0.007946-0.011261        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

     0.000211-0.000004-0.000015-0.000020-0.000019-0.000012-0.000009 0.000006        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

     0.000155-0.000062-0.000250-0.000363-0.000372-0.000270-0.000061 0.000334        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

    -0.000012 0.000001 0.000011 0.000018 0.000019 0.000015 0.000006-0.000004        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12
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  ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

    -0.000277-0.000081 0.000355 0.000480 0.000264-0.000038-0.000058-0.000219        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

    -0.000002-0.000001 0.000002 0.000004 0.000004 0.000002-0.000001-0.000003        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

     0.002316 0.004319 0.003862 0.002280-0.000397-0.004857-0.007779-0.011247        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

    -0.000035-0.000025-0.000182-0.000026-0.000013 0.000002 0.000080 0.000014        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

     0.000114-0.000315-0.000437-0.000743-0.000414-0.000327 0.000021 0.000362        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

    -0.000004 0.000012 0.000023 0.000028 0.000025 0.000016 0.000004-0.000008        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

    -0.000214-0.000058 0.000313 0.000421 0.000184-0.000088-0.000210-0.000213        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

    -0.000002-0.000001 0.000002 0.000004 0.000004 0.000002-0.000001-0.000003        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  208
  NO. OF POINTS = 2048

     0.002372 0.004355 0.003816 0.002119-0.000630-0.005015-0.007826-0.011155        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  208
  NO. OF POINTS = 2048
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[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 278
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 278
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. [illegible]
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 278
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
INITION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion F

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE [illegible]-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XY-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XY-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 235

NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.000336-0.000409 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.000002 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.003815 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000358 [illegible] 0.000570 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.000095-0.000138-0.000158 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.000038-0.000016-0.000056 [illegible] 0.000025 0.000061 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000242-0.000092 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000002-0.000001 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.000501 [illegible] 1

MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.000027 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.000422 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.000002 [illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion X

M A X I M U M   A B S O L U T E   A C C E L.

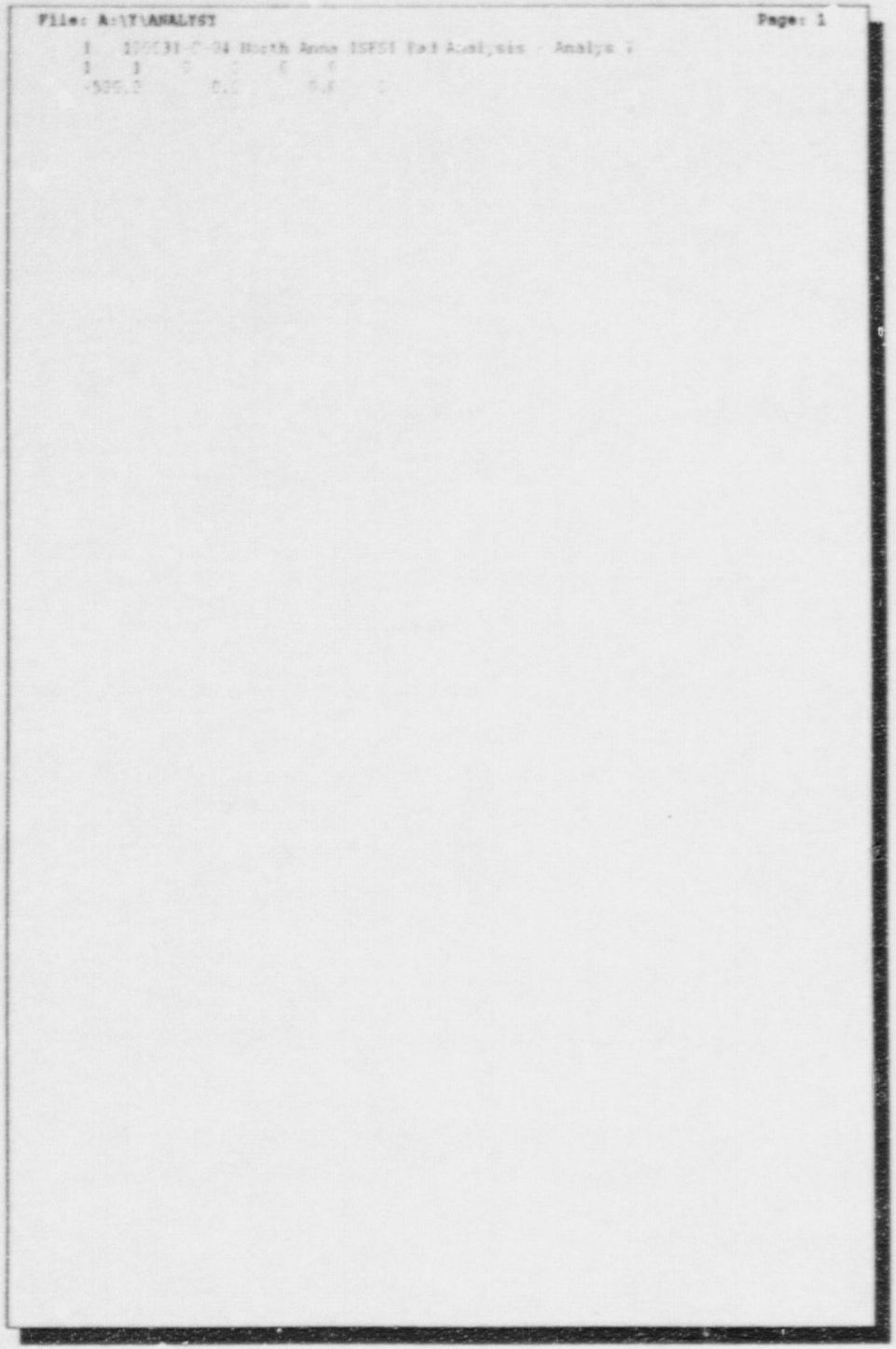
J.	X-ACC	AT TIME	Y-ACC	AT TIME	Z-ACC	AT TIME
198	0.2155	6.6400	0.0001	10.0300	0.0022	9.3850
203	0.2152	6.6400	0.0003	9.7400	0.0044	9.5500
208	0.2145	6.6400	0.0005	5.9100	0.0047	5.8300
213	0.2137	6.6400	0.0006	10.3400	0.0057	5.8200
218	0.2127	6.6400	0.0005	6.6600	0.0067	5.9500
223	0.2295	3.7100	0.0010	4.6600	0.0079	6.2700
228	0.2293	3.7100	0.0018	5.7900	0.0241	5.7300
231	0.2276	6.6400	0.0009	10.2900	0.0022	9.3850
232	0.2285	9.1000	0.0021	9.7400	0.0044	9.5500
233	0.2302	9.1000	0.0039	5.9100	0.0047	5.8300
234	0.2283	9.1000	0.0035	5.9000	0.0057	5.8200
235	0.2259	5.6400	0.0014	4.3500	0.0067	5.9500
236	0.2376	1.1000	0.0091	5.9700	0.0079	6.2700
237	0.2483	9.1000	0.0142	5.7900	0.0244	5.7300

MAXIMUM ABSOLUTE ANGULAR ACCELERATIONS (RADS SEC/SEC)

N.P.	XX-ACC	AT TIME	YY-ACC	AT TIME	ZZ-ACC	AT TIME

198	0.0503	11.2800	0.0038	5.7100	0.0000	5.7200
203	0.0052	9.2600	0.0029	5.7100	0.0000	5.7200
208	0.0004	5.9100	0.0030	5.7100	0.0000	5.7200
213	0.0004	1.9000	0.0038	5.7100	0.0000	5.7200
218	0.0074	4.8500	0.0028	5.7100	0.0000	5.7200
223	0.0010	5.8700	0.0026	5.7100	0.0000	5.7200
228	0.0015	5.7900	0.0056	5.7200	0.0050	5.7200
231	0.0001	10.2800	0.0035	5.7100	0.0000	5.7200
232	0.0002	9.2600	0.0033	5.7100	0.0000	5.7200
233	0.0004	5.9100	0.0034	5.7100	0.0000	5.7200
234	0.0004	5.9000	0.0035	5.7100	0.0000	5.7200
235	0.0004	6.1500	0.0032	5.7100	0.0000	5.7200
236	0.0019	5.8700	0.0030	5.7100	0.0000	5.7200
237	0.0016	5.7900	0.0062	5.7200	0.0000	5.7200

BLANKS IN THE ABOVE TABLES ARE DUES WHERE OUTPUT HAS NOT BEEN REQUESTED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*****************************************************************
*                          SUPER                                *
*                        S A S S I                              *
*                                                               *
*                                                               *
*                  PROGRAM MODULE ANALYSIS                      *
*                INSTALLATION - MARCH 1994                      *
*                                                               *
*                 SASSI DEVELOPMENT TEAM                        *
*                      JOHN LYSMER                              *
*                    FARHANG OSTADAN                            *
*                  MANSOUR TABATABAIE                           *
*                   FREDRICK TAJIRIAN                           *
*                   SHAHRIAR VAHDANI                            *
*                                                               *
*  ***   SUPER SASSI PC VERSION BY DAN M. GHIOCEL   ***         *
*             STEVENSON & ASSOCIATES, INC.                      *
*          9217 MIDWEST AVE., CLEVELAND, OHIO 44125             *
*                                                               *
*****************************************************************
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IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 1

G E N E R A L   C O N T R O L   I N F O R M A T I O N

OPERATION MODE = 1

TYPE OF ANALYSIS = 1
MODE OF ANALYSIS = 1
DATA SAVE OPTION = 0
NO. OF FREQUENCIES = 0
PRINT OPTION = 0
EQUIVALENT IMPEDANCE OPTION = 0

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 1

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6290E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9524E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
391	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
419	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 1

C O N T R O L   M O T I O N   I N F O R M A T I O N

X-COORDINATE OF CONTROL POINT = -502.00
Z-COORDINATE OF CONTROL POINT = 0.00
INCIDENT SEISMIC WAVE ANGLE = 0.00
INCOHERENT MOTION OPTION = 0

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 1

-- TAPE 3 --

100031-C-02 North Anna ISFSI Pad Analysis - Mode 2 - Horizontal

C O N T R O L   M O T I O N   D A T A

ACCELERATION OF GRAVITY = 32.20
NUMBER OF TOTAL LAYERS IN SITE = 11

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5557E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6290E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9524E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
391	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
419	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 1

-- TAPE 4 --

100031-C-03 North Anna ISFSI Pad Analysis - House 1

G E N E R A L   C O N T R O L   I N F O R M A T I O N

NUMBER OF NODAL POINTS = 238
NUMBER OF AT/BELOW GRADE POINTS = 195
NUMBER OF INTERFACE POINTS = 195
NUMBER OF INTERMEDIATE POINTS = 0

NUMBER OF SYM/ANTI-SYM PLANES = 2

ACCELERATION OF GRAVITY = 32.20
Z-COORDINATE OF GP GRND LEVEL = 0.00
DIMENSION OF ANALYSIS = 3

B L O C K   S T O R A G E   I N F O R M A T I O N

MAXIMUM NUMBER OF TERMS IN A BLOCK : 24675
MAXIMUM NUMBER OF COLUMNS IN A BLOCK : 1292
NUMBER OF EQUATIONS IN STRUCTURAL SYSTEM : 1292
NUMBER OF EQUATIONS IN EXCAVATED SOIL SYSTEM : 504

NUMBER OF BLOCKS IN STIFFNESS OF STRUCTURE : 1
NUMBER OF BLOCKS IN STIFFNESS OF EXCAVATED SOIL : 1
NUMBER OF BLOCKS IN K21 OF EXCAVATED SOIL : 1

MAXIMUM CORE SPACE USED IN WORDS : 154645

1ANALYS - 100031-C-04 North Anna ISFSI Pad Analyses - Analys 7

TAPE 5

100031-C-04 North Anna ISFSI Pad Analyses - Po...

F L E X I B I L I T Y / I M P E D A N C E D A T A

ACCELERATION OF GRAVITY = 32.20
MAX. NUMBER OF LAYER INTERFACE = 3
RADIUS OF CENTRAL ELEMENT IN POINT = 3.60
NUMBER OF DOF IN TRANS. BOUNDARY = 66
DIMENSION OF ANALYSIS = 3

F R E Q U E N C I E S O F A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9524E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

1ANALYS - 100031-C-04 North Anna ISFSI Pad Analyses - Analys 7

C O M P U T E D F R E Q U E N C I E S

FREQUENCY NUMBER	FREQUENCY (HZ)	TIME
2	0.9766E-01	5.10
10	0.4883E+00	5.17
20	0.9766E+00	5.15
41	0.2002E+01	5.19
61	0.2979E+01	5.16
82	0.4004E+01	5.21
102	0.4980E+01	5.17
123	0.6006E+01	5.24
143	0.6982E+01	5.20
164	0.8008E+01	5.23
166	0.8105E+01	5.18

174	0.8496E+01	5.23
181	0.8838E+01	5.14
184	0.8984E+01	5.23
195	0.9521E+01	5.17
205	0.1001E+02	5.06
215	0.1050E+02	5.27
221	0.1079E+02	5.33
225	0.1099E+02	5.05
229	0.1118E+02	5.43
234	0.1143E+02	5.17
246	0.1201E+02	5.19
266	0.1299E+02	5.14
287	0.1401E+02	5.36
307	0.1499E+02	5.15
328	0.1602E+02	5.25
369	0.1802E+02	5.21
393	0.1919E+02	5.23
401	0.1958E+02	5.23
410	0.2002E+02	5.21
418	0.2041E+02	5.29
471	0.2300E+02	5.33
512	0.2500E+02	5.33
553	0.2700E+02	5.33
614	0.2998E+02	5.32

1ANALYS - 100031-C-04 North Anna ISFSI Pad Analyses - Analys 7

O V E R A L L T I M E L O G

INPUT DATA FROM CARDS AND TAPES = 0.15
FORM (K-W*W*M) FOR K21 = 0.02
FORM FLEXIBILITY MATRIX = 49.66
FORM IMPEDANCE MATRIX = 36.78
FORM (K-W*W*M) FOR EXCAVATED SOIL = 0.00
FORM (K-W*W*M) FOR STRUCTURE = 18.78
FORM (K-W*W*M)+(IMPEDANCE MATRIX) AND REDUCE = 40.83
FORM FREE FIELD MOTION = 0.19
FORM (IMPEDANCE MATRIX)*(F.F.MOTION) LOAD VECTOR = 14.77
SOLVE FOR TRANSFER FUNCTIONS = 13.46
CREATE FINAL TRANSFER FUNCTION TAPE = 0.04
PRINT ALL TRANSFER FUNCTIONS = 0.02
TOTAL SOLUTION TIME = 192.78

1POINT2 - 100031-C-04 North Anna ISFSI Pad Analyses - Analys 7

O U T P U T T A P E I N F O R M A T I O N

LOGICAL TAPE WRITTEN = TAPE 5

TOTAL NO. OF WORDS = 4250944
TOTAL NO. OF RECORDS = 75
TOTAL NO. OF SECTORS = 532228

LOGICAL TAPE WRITTEN = TAPE 8

TOTAL NO. OF WORDS = 182372
TOTAL NO. OF RECORDS = 1297
TOTAL NO. OF SECTORS = 357

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    1   100031-C-03 North Anna ISFSI Pad Analysis - Motion 1
    1   14    0    1     2.48
  198    010001    010001    010001    010001    010001    010001
  203    010001    010001    010001    010001    010001    010001
  208    010001    010001    010001    010001    010001    010001
  213    010001    010001    010001    010001    010001    010001
  218    010001    010001    010001    010001    010001    010001
  223    010001    010001    010001    010001    010001    010001
  228    010001    010001    010001    010001    010001    010001
  231    010001    010001    010001    010001    010001    010001
  232    010001    010001    010001    010001    010001    010001
  233    010001    010001    010001    010001    010001    010001
  234    010001    010001    010001    010001    010001    010001
  235    010001    010001    010001    010001    010001    010001
  236    010001    010001    010001    010001    010001    010001
  237    010001    010001    010001    010001    010001    010001
 2048 2000      0.01      1.0
Synthetic DBE (soil) t.h. zpa=0.178 g's, dt=.01, HORIZONTAL Dir.
-0.025591-0.038771-0.047596-0.047757-0.040252-0.029418-0.020377-0.015254
-0.013195-0.010931-0.006732-0.000176 0.007160 0.013851 0.019180 0.023955
 0.029134 0.035442 0.042211 0.048257 0.052091 0.053379 0.052528 0.050820
 0.049094 0.047396 0.045493 0.042667 0.038889 0.034472 0.029443 0.023693
 0.016398 0.007080-0.004397-0.016973-0.029234-0.039455-0.046838-0.051177
-0.053264-0.053788-0.053509-0.052518-0.051016-0.048961-0.046779-0.044660
-0.042960-0.041590-0.040195-0.038598-0.036619-0.033902-0.030835-0.027188
-0.023542-0.020277-0.018112-0.017257-0.017754-0.018825-0.019645-0.019166
-0.017097-0.013463-0.009043-0.004391-0.000101 0.003915 0.007698 0.011598
 0.015510 0.019436 0.022963 0.025920 0.027815 0.028456 0.027463 0.025039
 0.021513 0.017880 0.014879 0.013120 0.012164 0.011195 0.008913 0.004816
-0.000947-0.007029-0.012043-0.014682-0.014802-0.012822-0.009902-0.006840
-0.004383-0.002640-0.001868-0.001969-0.002998-0.004374-0.005432-0.005076
-0.002823 0.001424 0.006785 0.012384 0.017274 0.021321 0.024469 0.026960
 0.028422 0.028594 0.027211 0.025037 0.023230 0.023289 0.025538 0.029181
 0.031989 0.031933 0.027781 0.020241 0.010960 0.002288-0.005373-0.011145
-0.015734-0.019016-0.020486-0.019124-0.014926-0.008914-0.003439-0.000470
-0.000991-0.003972-0.007639-0.010183-0.011354-0.011864-0.013065-0.015306
-0.018221-0.020850-0.023318-0.026748-0.033126-0.043121-0.055373-0.065977
-0.070738-0.066932-0.055417-0.039690-0.024491-0.012843-0.005395-0.000383
 0.004065 0.008973 0.013652 0.017268 0.019488 0.021391 0.023962 0.027314
 0.029606 0.028696 0.023563 0.016320 0.011079 0.012043 0.020000 0.031667
 0.040655 0.041626 0.033919 0.018519 0.004326-0.003928-0.004500 0.000966
 0.009070 0.017816 0.026865 0.036680 0.045693 0.050090 0.045038 0.028717
 0.004186-0.020779-0.038235-0.044183-0.041323-0.036357-0.035585-0.039950
-0.045120-0.044734-0.036359-0.023671-0.014036-0.015965-0.026262-0.036717
-0.035804-0.016729 0.016707 0.051825 0.073628 0.074060 0.056012 0.031550
 0.013756 0.009713 0.017118 0.028228 0.035756 0.038176 0.038816 0.041862
 0.046926 0.048645 0.040214 0.018926-0.009145-0.032909-0.042613-0.036213
-0.021612-0.011373-0.015088-0.032616-0.054735-0.068790-0.067454-0.052710
-0.034585-0.023819-0.025684-0.037073-0.050343-0.058633-0.060518-0.058865
-0.057224-0.055105-0.048086-0.030890-0.002985 0.029760 0.057086 0.070899
 0.069829 0.060462 0.052303 0.051882 0.058141 0.064184 0.062047 0.049020
 0.029120 0.013016 0.000834 0.000413 0.004590 0.006712 0.002841-0.005120
-0.011624-0.011143-0.002946 0.008801 0.016974 0.016264 0.005493-0.011813
-0.030520-0.046213-0.057224-0.063436-0.065294-0.062271-0.053947-0.040796
-0.025652-0.012502-0.005152-0.004711-0.009561-0.015859-0.020042-0.019799
-0.014772-0.005261 0.007899 0.023791 0.040054 0.053106 0.058514 0.053710
 0.039413 0.020439 0.002997-0.008076-0.012438-0.013830-0.017342-0.025855
-0.038357-0.050390-0.057843-0.059486-0.058423-0.059476-0.066340-0.078539
-0.092163-0.101835-0.104398-0.099316-0.091513-0.082533-0.075139-0.069277
-0.064341-0.059991-0.057203-0.056854-0.058980-0.061585-0.062007-0.057980
-0.049582-0.038663-0.028144-0.019757-0.013896-0.009138-0.004984-0.001790
-0.001485-0.005861-0.015628-0.029030-0.042861-0.053183-0.057323-0.054026
-0.044201-0.028788-0.010858 0.007632 0.024080 0.036984 0.045618 0.050925
 0.054665 0.059256 0.066425 0.077412 0.092542 0.112107 0.135641 0.161808
 0.167097 0.169979 0.174575 0.172754 0.171209 0.137553 0.094175 0.053781
 0.020973-0.003256-0.020997-0.034467-0.044646-0.050380-0.050347-0.044402
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-0.035202-0.026934-0.023367-0.028205-0.038801-0.052276-0.064863-0.073616
-0.077770-0.077730-0.074656-0.069000-0.060974-0.050469-0.038326-0.025957
-0.015488-0.008319-0.005054-0.004929-0.007088-0.010882-0.016879-0.025650
-0.038106-0.052918-0.066900-0.076246-0.077746-0.069606-0.052344-0.027575
 0.002320 0.035267 0.068511 0.098414 0.119603 0.126636 0.115819 0.088387
 0.051129 0.015599-0.006206-0.006357 0.015913 0.053803 0.095806 0.130348
 0.152187 0.158402 0.152328 0.138152 0.118528 0.094626 0.066807 0.036839
 0.007818-0.016412-0.033807-0.044795-0.052357-0.059416-0.067261-0.074087
-0.076546-0.071262-0.057135-0.035240-0.008723 0.018802 0.043121 0.059992
 0.064784 0.054379 0.029546-0.007506-0.045325-0.074953-0.090453-0.092224
-0.087016-0.083154-0.085745-0.092877-0.097355-0.090884-0.069982-0.037689
-0.002037 0.029719 0.054475 0.074698 0.094235 0.114260 0.130543 0.136385
 0.127473 0.106994 0.085209 0.073673 0.079087 0.097037 0.113820 0.113998
 0.088565 0.040507-0.017429-0.069174-0.103743-0.118591-0.118565-0.110072
-0.097006-0.079226-0.055900-0.028924-0.004701 0.008875 0.006658-0.003453
-0.031295-0.048047-0.052443-0.043807-0.028186-0.013882-0.007380-0.010073
-0.019275-0.030134-0.038741-0.042513-0.040209-0.030411-0.012177 0.014270
 0.045479 0.075117 0.095120 0.099327 0.085638 0.057494 0.021836-0.012537
-0.049373-0.057181-0.063010-0.059296-0.048797-0.034494-0.019932-0.008167
-0.001471 0.000221-0.000994-0.001216 0.002907 0.012946 0.027252 0.042213
 0.053498 0.058611 0.057267 0.051437 0.043109 0.033229 0.025576 0.003343
-0.019522-0.046075-0.071785-0.090556-0.097999-0.093072-0.079233-0.062301
-0.048341-0.040625-0.039386-0.042204-0.046576-0.050962-0.055754-0.061788
-0.069572-0.077848-0.084279-0.085685-0.079593-0.064314-0.039958-0.008220
 0.026775 0.058956 0.081021 0.087131 0.074958 0.047919 0.014120-0.015796
-0.033053-0.033170-0.017290 0.010074 0.043225 0.077944 0.111121 0.140048
 0.160494 0.167473 0.156794 0.128513 0.087978 0.045197 0.010422-0.009810
-0.015912-0.013794-0.011553-0.014258-0.021920-0.029689-0.031926-0.025414
-0.011737 0.004474 0.017944 0.026075 0.029080 0.029139 0.027576 0.024171
 0.017187 0.005901-0.008243-0.020875-0.026945-0.022650-0.007900 0.014036
 0.037308 0.056183 0.066266 0.066048 0.056465 0.041131 0.025020 0.013848
 0.017795 0.020349 0.036777 0.055383 0.069287 0.074090 0.069477 0.059781
 0.051058 0.048224 0.051561 0.058475 0.061983 0.057501 0.043272 0.021715
-0.002754-0.025679-0.045056-0.061047-0.075253-0.088311-0.099388-0.105962
-0.106004-0.099175-0.088182-0.077377-0.071315-0.072042-0.078730-0.087803
-0.095505-0.099359-0.099687-0.098364-0.097682-0.098041-0.097830-0.093795
-0.082552-0.062069-0.032763 0.003031 0.040891 0.075514 0.100862 0.111888
 0.105541 0.082917 0.049272 0.013422-0.015689-0.031798-0.034067-0.026150
-0.014126-0.002518 0.007132 0.016307 0.026384 0.036581 0.042752 0.039965
 0.025307 0.000909-0.027023-0.050615-0.064911-0.069497-0.068323-0.065984
-0.065054-0.064286-0.060684-0.051800-0.038463-0.024034-0.012834-0.006989
-0.005909-0.006603-0.006282-0.003220 0.002781 0.012291 0.026680 0.048205
 0.077367 0.111359 0.143027 0.163524 0.165474 0.146867 0.111500 0.067738
 0.024871-0.009894-0.032656-0.042018-0.038582-0.024001-0.002220 0.020475
 0.035589 0.035719 0.017720-0.014078-0.048963-0.073361-0.077496-0.059735
-0.028283 0.002985 0.020455 0.017527-0.003279-0.031679-0.055523-0.065926
-0.061150-0.045555-0.026844-0.011337-0.001902 0.002834 0.006078 0.011046
 0.018771 0.028528 0.036207 0.046237 0.051875 0.056061 0.060426 0.067255
 0.078168 0.093964 0.113401 0.133532 0.149600 0.156996 0.152568 0.136722
 0.113013 0.087117 0.063461 0.043354 0.023863 0.009499-0.029537-0.063364
-0.092418-0.105039-0.092914-0.055958-0.004829 0.042398 0.070048 0.067341
 0.038075-0.003608-0.040335-0.059600-0.059946-0.049872-0.042299-0.045892
-0.060407-0.076634-0.083028-0.072302-0.046935-0.017113 0.004473 0.010117
 0.000110-0.018311-0.036931-0.051295-0.063018-0.076380-0.093812-0.111730
-0.121782-0.114943-0.087873-0.045357 0.000812 0.037924 0.057777 0.060379
 0.052106 0.041873 0.035826 0.035355 0.037333 0.037170 0.031163 0.018684
 0.001775-0.014958-0.026012-0.025729-0.010764 0.018422 0.055662 0.090490
 0.111006 0.109418 0.085460 0.047558 0.008663-0.019182-0.030728-0.028393
-0.020085-0.013443-0.012249-0.015041-0.018393-0.019540-0.019821-0.021988
-0.027984-0.035541-0.038853-0.031129-0.009480 0.023053 0.057675 0.084166
 0.094792 0.087708 0.066339 0.037722 0.009106-0.013498-0.026233-0.027819
-0.019361-0.004247 0.011977 0.023920 0.028112 0.025219 0.019121 0.015035
 0.015726 0.020274 0.024325 0.023762 0.017279 0.007985-0.000822-0.007491
 0.003191 0.007207 0.005551-0.004712-0.022097-0.041378-0.057647-0.068792
-0.076509-0.083138-0.088737-0.088794-0.076627-0.047224-0.002130 0.043939
 0.095476 0.122457 0.125041 0.106233 0.075311 0.043684 0.019526 0.005707
```

A:\ OTIONY 97-May- 10:55

File: A:\Y\MOTIONY Page: 3

File: A:\Y\MOTIONY Page: 4

File: A:\T\MOTIONY Page: 5

0.039869	0.043660	0.04690?	[illegible]	[illegible]	0.053028	0.053248	0.052815
0.051821	0.050471	0.048424	[illegible]45534	0.041561	0.036908	0.031979	0.027433
0.023290	0.019421	0.015202	[illegible]	[illegible]25454	0.000812	-0.002985	-0.005806
-0.008467	-0.011588	-0.015352	[illegible]	[illegible]19551	-0.017182	-0.011956	-0.005643
0							

1

```
*************************************************************
*                          SUPER                            *
*                        S A S S I                          *
*                                                           *
*                 PROGRAM MODULE MOTION                     *
*              INSTALLATION - MARCH 1994                    *
*                                                           *
*                 SASSI DEVELOPMENT TEAM                    *
*                       JOHN LYSMER                         *
*                     FARHANG OSTADAN                       *
*                   MANSOUR TABATABAIE                      *
*                    FREDRICK TAJIRIAN                      *
*                    SHAHRIAR VAHDANI                       *
*                                                           *
* ***  SUPER SASSI/PC-VERSION BY DAN M. GHIOCEL  ***        *
*             STEVENSON & ASSOCIATES INC                    *
*       9217 MIDWEST AVE., CLEVELAND, OHIO 44125            *
*                                                           *
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1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

G E N E R A L   C O N T R O L   I N F O R M A T I O N

OPERATION MODE	=	1
ANALYSIS TYPE CODE	=	1
TOTAL NUMBER OF OUTPUT POINTS	=	14
TOTAL NUMBER OF DA...G VALUES	=	0
OUTPUT CODE FOR TIME HISTORIES	=	1
DURATION OF TIME HISTORIES FOR PL...	=	20.4800

1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

--- TAPE 8 ---

100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

G E N E R A L   C O N T R O L   I N F O R M A T I O N

ACCELERATION OF GRAVITY	=	32.2000
TOTAL NUMBER OF NODES	=	238

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES	=	35
FREQUENCY STEP	=	0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9526E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01

512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

O U T P U T   R E Q U I R E M E N T S

A-- PLOT FOURIER AMPLI. FUNCTION
B-- SAVE ACCEL. TIME HISTORY ON TAPE
C-- PLOT ACCEL. TIME HISTORY
D-- PLOT ACCEL. AND VELOC. SPECTRUM
E-- SAVE ACCEL. AND VELOC. SPECTRUM ON TAPE
F-- PRINT MAXIMUM ACCEL.

N.P.NO.	X-DIRECTION A	B	C	D	E	F	Y-DIRECTION A	B	C	D	E	F	Z-DIRECTION A	B	C	D	E	F
198	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
203	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
208	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
213	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
218	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
223	NO	YES	NO	NO			NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
228	NO	YES	NO	NO	NO	.	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
231	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
232	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
233	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
234	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
235	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
236	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
237	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES

N.P.NO.	XX-DIRECTION A	B	C	D	E	F	YY-DIRECTION A	B	C	D	E	F	ZZ-DIRECTION A	B	C	D	E	F
198	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
203	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
208	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
213	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
218	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
223	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
228	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
231	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
232	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES

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233  NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES

234  NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES

235  NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES

236  NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES

237  NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES     NO  YES NO  NO  NO  YES

1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y
 I N P U T   C O N T R O L   T I M E   H I S T O R Y

    TOTAL NUMBER OF POINTS IN F.F.T.     =        2048
    TOTAL NUMBER OF POINTS TO BE READ    =        2000
    TIME STEP                            =0.100000E-01
    SCALE FACTOR FOR TIME HISTORY        =0.100000E+01
    MAXIMUM VALUE OF TIME HISTORY        =0.000000E+00

    Synthetic DBE (soil; t.h. zpa=0.178 g's, dt=.01, HORIZONTAL Dir

      -0.025591  -0.038771  -0.047596  -0.047757  -0.040252  -0.029418  -0.020377  -0.015254        0

 S C A L E D   C O N T R O L   T I M E   H I S T O R Y

    Synthetic DBE (soil; t.h. zpa=0.178 g's, dt=.01, HORIZONTAL Dir
    TOTAL NUMBER OF POINTS          =       2048
    TIME STEP                       =0.100000E-01
    TOTAL DURATION OF RECORD        =0.204800E+02
    TOTAL DURATION OF QUIET ZONE    =0.480000E+00
    MAXIMUM VALUE OF TIME HISTORY   =0.177462E+00

      -0.025591  -0.038771  -0.047596  -0.047757  -0.040252  -0.029418  -0.020377  -0.015254        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

     -0.000001-0.000002 0.000001 0.000013 0.000027 0.000035 0.000036 0.000026        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

     -0.012605-0.027525-0.038585-0.045202-0.047874-0.044174-0.035583-0.027408        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

      0.000522-0.001694-0.004448-0.004278 0.001185 0.005497 0.007531 0.006184        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

     -0.000791-0.001180-0.000531 0.000496 0.001038 0.001181 0.001087 0.000462        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048
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      0.000008 0.000004 0.000005 0.000004 0.000008-0.000001-0.000001-0.000001        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO.  198
  NO. OF POINTS = 2048

      0.000000 0.000001 0.000002 0.000006-0.000009-0.000005-0.000006-0.000004        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

     -0.000003-0.000002 0.000015 0.000053 0.000087 0.000098 0.000085 0.000044        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

     -0.012655-0.027527-0.038568-0.045127-0.047877-0.044298-0.035810-0.027470        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

      0.000477-0.001785-0.004757-0.004438 0.000354 0.005492 0.007560 0.006258        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

     -0.000801-0.001193-0.000526 0.000479 0.001025 0.001181 0.001100 0.000487        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

      0.000009 0.000008 0.000008 0.000005 0.000000-0.000001 0.000001 0.000003        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO.  203
  NO. OF POINTS = 2048

      0.000001 0.000004 0.000004-0.000002-0.000010-0.000015-0.000016-0.000013        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  208
  NO. OF POINTS = 2048

      0.000000 0.000023 0.000076 0.000134 0.000155 0.000124 0.000055-0.000045        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  208
  NO. OF POINTS = 2048

     -0.012667-0.027467-0.038469-0.045225-0.048123-0.044666-0.036200-0.027947        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y
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FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 218
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 223
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion Y

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 223

NO. OF POINTS = 2048

0.000286-0.002394-0.005674 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 227
NO. OF POINTS = 2048

-0.000849-0.001272-0.005639 0.000484 0.003359 0.003403 0.001838 0.001788 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 227
NO. OF POINTS = 2048

-0.000015-0.000016 0.000022 0.000069 0.000254-0.000247-0.000443-0.000836 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 227
NO. OF POINTS = 2048

-0.000031-0.000084-0.000109-0.000061 0.000044 0.000083 0.000119 0.000323 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

0.000440 0.000971 0.002995 0.003925-0.003612-0.008295-0.001274-0.000845 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

-0.013643-0.030542-0.042156-0.048148-0.048792-0.042672-0.031972-0.022367 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

0.000145-0.002142-0.004643-0.003345 0.003461 0.004586 0.007487 0.004825 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

-0.000926-0.001353-0.000547 0.000751 0.001513 0.001587 0.001139 0.000290 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

-0.000034-0.000055-0.000042-0.000026-0.000010 0.000013 0.000070 0.000194 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 228
NO. OF POINTS = 2048

-0.000075-0.000150-0.000141-0.000036 0.000093 0.000173 0.000185 0.000144 1

1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

0.000808 0.002294 0.002044 0.000039 [illegible] 0.000032 0.000690 0.000296 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACC.. ATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

-0.005908-0.017567-0.034441-0.049625-0.056449-0.050926-0.044447-0.032729 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

0.002586-0.001687-0.004487-0.004927 0.002979 0.005584 0.007551 0.006198 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

-0.000876-0.001312-0.000536 0.000592 0.001147 0.001255 0.001133 0.000469 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAP' 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

0.000021 0.000024 0.000056 0.000004 0.000001-0.000001-0.000008 0.000095 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

0.000002 0.000003 0.000002 0.000000-0.000003-0.000005-0.000006-0.000006 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

0.000023 0.000061 0.000087 0.000094 0.000089 0.000089 0.000091 0.000057 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

-0.005481-0.017369-0.034200-0.049438-0.056401-0.054100-0.044808-0.033179 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

0.002492-0.001776-0.004776-0.004367 0.003348 0.005509 0.007580 0.006272 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YZ-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

-0.005789-0.017325-0.034120-0.049199 0.256778-0.054527-0.045433-0.013796 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

[illegible] 1
MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion [illegible]

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.000937-0.001354-0.003436 0.002527 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.000206-0.000097-0.000005 0.002538 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.000007-0.000034-0.000058-0.000055-0.000023 0.000017 0.000052 0.000074 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.000161 0.000500 0.000993 0.001131 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.002310-0.009744-0.028093-0.045507-0.054845-0.054158-[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.030295-0.002006-0.005594-0.004543 0.000727 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000937-0.001412-0.000438 0.000579 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000219-0.000321 0.000022 0.000081 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000031-0.000084-0.000103-0.000061 [illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

0.000160 0.000542 0.000697 0.000141-0.000881-[illegible] 0.000754 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.025679-[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

0.000859-0.002197-[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.000120-0.000505-0.000585 [illegible] 0.000271 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.000038-0.000057-0.000136-[illegible] 0.000156 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

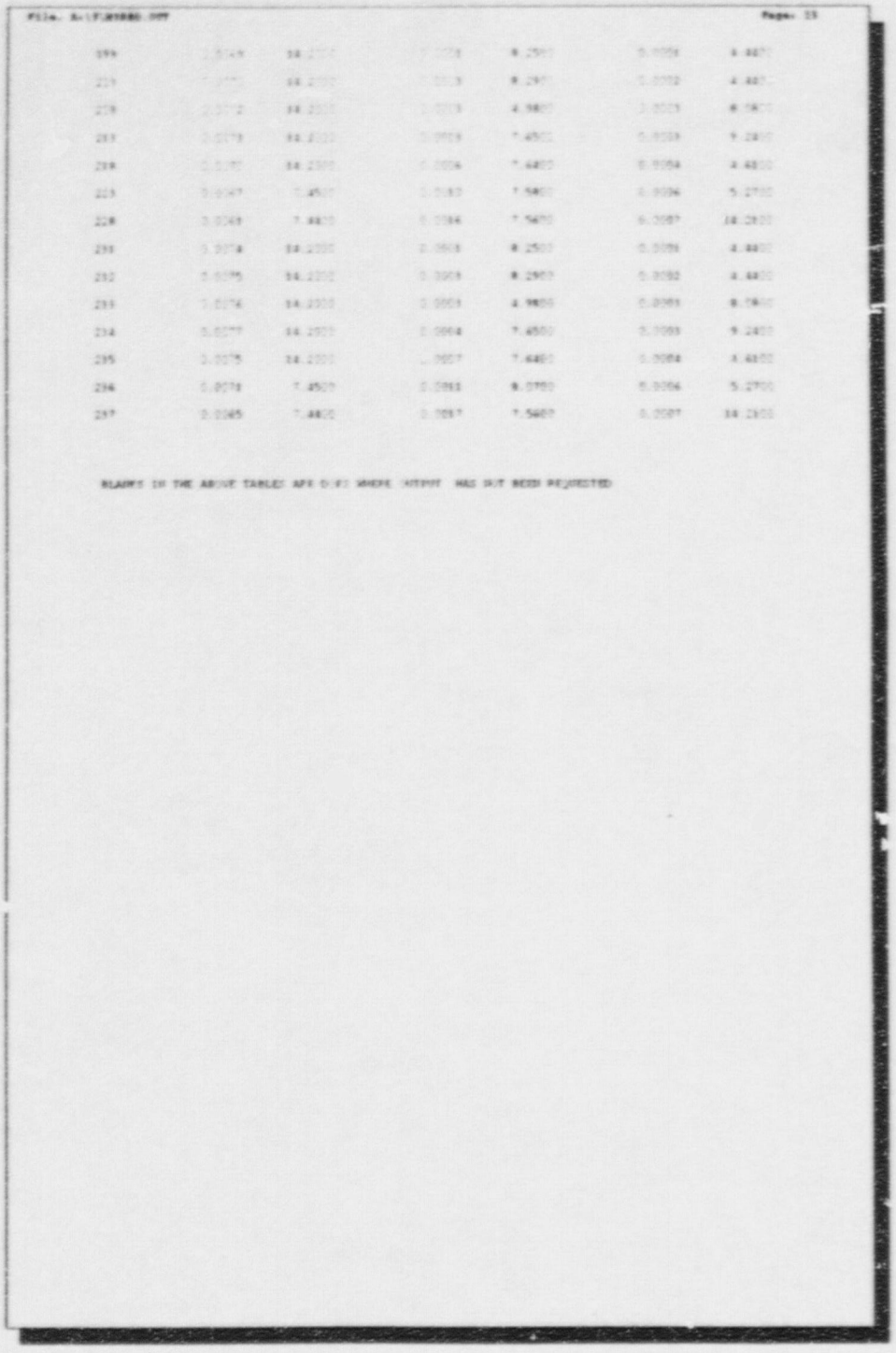
-0.000075-0.000150-0.000141-[illegible] 0.000186 0.000144 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 1

M A X I M U M A B S O L U T E A C C E L

N.P.	X-ACC	AT TIME	Y-ACC	AT TIME	Z-ACC	AT TIME
198	0.0025	8.5900	0.1960	3.7100	0.0366	14.2600
203	0.0018	8.2900	0.1961	3.7100	0.0371	14.2600
208	0.0018	9.2400	0.1960	3.7100	0.0381	14.2600
213	0.0024	9.2400	0.1961	3.7100	0.0388	7.5100
218	0.0029	9.2300	0.1954	3.7100	0.0390	7.5100
325	0.0040	7.9400	0.1679	7.2400	0.3971	7.5000
2.9	0.0047	9.2900	0.1884	3.7100	0.0281	7.5000
231	0.0015	8.2500	0.2238	10.2200	0.0367	14.2600
232	0.0032	8.2500	0.2286	4.3500	0.0373	14.2600
233	0.0036	5.2000	0.2276	4.3500	0.0381	14.2600
234	0.0038	9.2400	0.2309	4.3500	0.0389	7.5100
235	0.0065	8.2900	0.2328	4.3500	0.0390	7.5100
236	0.0836	8.2700	0.2282	4.3400	0.0374	7.5000
237	0.0853	8.0400	0.2240	4.3400	0.0284	7.5000

MAXIMUM ABSOLUTE ANGULAR ACCELERATIONS (RADS/SEC/SEC)

N.P.	XX-ACC	AT TIME	YY-ACC	AT TIME	ZZ-ACC	AT TIME



199	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
224	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
229	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
233	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
239	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
245	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
228	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
251	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
252	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
253	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
254	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
255	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
256	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
257	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] IN THE ABOVE TABLES ARE [illegible] WHERE [illegible] HAS NOT BEEN REJECTED

File: A:\Z\ANALYSZ Page: 1

1 159331-C-24 North Anna ISFSI 4x4 Analysis - Analys 2

1 1 6 6 [illegible] [illegible]

-560.6 5.2 6.2 [illegible]

1

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*****************************************************
*                     SUPER                          *
*                   S A S S I                        *
*                                                    *
*           PROGRAM MODULE ANALYSIS                  *
*           INSTALLATION - MARCH 1994                *
*                                                    *
*           SASSI DEVELOPMENT TEAM                   *
*               JOHN LYSMER                          *
*               FARHANG OSTADAN                      *
*               MANSOUR TABATABAIE                   *
*               FREDRICK TAJIRIAN                    *
*               SHAHRIAR VAHDANI                     *
*                                                    *
*  ***  SUPER SASSI/PC VERSION BY DAN M. GHIOCEL *** *
*           STEVENSON & ASSOCIATES INC.              *
*      9,  MIDWEST AVE., CLEVELAND, OHIO 44125       *
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IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

G E N E R A L   C O N T R O L   I N F O R M A T I O N

OPERATION MODE = 1

TYPE OF ANALYSIS = 1
MODE OF ANALYSIS = 1
DATA SAVE OPTION = 0
NO. OF FREQUENCIES = 0
PRINT OPTION = 0
EQUIVALENT IMPEDANCE OPTION = 0

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9526E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

C O N T R O L   M O T I O N   I N F O R M A T I O N

X-COORDINATE OF CONTROL POINT = -500.00
Y-COORDINATE OF CONTROL POINT = 0.00
INCIDENT SEISMIC WAVE ANGLE = 0.00
INCOHERENT MOTION OPTION = 0

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

-- TAPE 3 --

100031-C-02 North Anna ISFSI Pad Analysis - Mode 2 - Vertical

C O N T R O L   M O T I O N   D A T A

ACCELERATION OF GRAVITY = 32.20
NUMBER OF TOTAL LAYERS IN SITE = 33

F R E Q U E N C I E S   O F   A N A L Y S I S

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9526E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

IANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

-- TAPE 4 --

100031-C-03 North Anna ISFSI Pad Analysis - House 2

G E N E R A L   C O N T R O L   I N F O R M A T I O N

NUMBER OF NODAL POINTS = 238
NUMBER OF AT/BELOW GRADE POINTS = 195
NUMBER OF INTERFACE POINTS = 195
NUMBER OF INTERMEDIATE POINTS = 0

NUMBER OF SYM/ANTI-SYM PLANES = 2

ACCELERATION OF GRAVITY = 32.20
Z-COORDINATE OF GROUND LEVEL = 0.00
DIMENSION OF ANALYSIS = 3

B L O C K   S T O R A G E   I N F O R M A T I O N

MAXIMUM NUMBER OF TERMS IN A BLOCK = 28267
MAXIMUM NUMBER OF COLUMNS IN A BLOCK = 1291
NUMBER OF EQUATIONS IN STRUCTURAL SYSTEM = 1291
NUMBER OF EQUATIONS IN EXCAVATED SOIL SYSTEM = 549

NUMBER OF BLOCKS IN STIFFNESS OF STRUCTURE = 1
NUMBER OF BLOCKS IN STIFFNESS OF EXCAVATED SOIL = 1
NUMBER OF BLOCKS IN F21 OF EXCAVATED SOIL = [illegible]

MAXIMUM CORE SPACE USED IN WORDS = 3750109
SANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

TAPE 3

100031-C-02 North Anna ISFSI Pad Analysis - Print

CLEXIBILITY / IMPEDANCE DATA

ACCELERATION OF GRAVITY = 32.20
MAX. NUMBER OF LAYER INTERFACE = 1
RADIUS OF CENTRAL ELEMENT IN POINT = 1.60
NUMBER OF DOF ON TRANS. BOUNDARY = 66
DIMENSION OF ANALYSIS = 3

FREQUENCIES OF ANALYSIS

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.049

FREQUENCY NUMBER	FREQUENCY HZ	CIRCULAR FREQUENCY RAD/SEC	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.4883E+00	0.3068E+01	0.2048E+01
20	0.9766E+00	0.6136E+01	0.1024E+01
41	0.2002E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4004E+01	0.2516E+02	0.2498E+00
102	0.4980E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.5338E+02	0.1177E+00
181	0.8838E+01	0.5553E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5983E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9526E-01
221	0.1079E+02	0.6780E+02	0.9267E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6244E-01
369	0.1802E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5211E-01
401	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
418	0.2041E+02	0.1282E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4346E-01
512	0.2500E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3703E-01
614	0.2998E+02	0.1884E+03	0.3336E-01

SANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

COMPUTED FREQUENCIES

FREQUENCY NUMBER	FREQUENCY HZ	TIME
2	0.9766E-01	5.53
10	0.4883E+00	5.50
20	0.9766E+00	5.52
41	0.2002E+01	5.45
61	0.2979E+01	5.40
82	0.4004E+01	5.48
102	0.4980E+01	5.49
123	0.6006E+01	5.49
143	0.6982E+01	5.49
164	0.8008E+01	5.54
166	0.8105E+01	5.56

FREQUENCY NUMBER	FREQUENCY HZ	TIME
174	0.8496E+01	5.50
181	0.8838E+01	5.54
184	0.8984E+01	5.53
195	0.9521E+01	5.57
205	0.1001E+02	5.52
215	0.1050E+02	5.48
221	0.1079E+02	5.54
225	0.1099E+02	5.51
229	0.1118E+02	5.57
234	0.1143E+02	5.52
246	0.1201E+02	5.51
266	0.1299E+02	5.48
287	0.1401E+02	5.49
307	0.1499E+02	5.49
328	0.1602E+02	5.54
369	0.1802E+02	5.56
393	0.1919E+02	5.56
401	0.1958E+02	5.49
410	0.2002E+02	5.52
418	0.2041E+02	5.49
471	0.2300E+02	5.57
512	0.2500E+02	5.65
553	0.2705E+02	5.63
614	0.2998E+02	5.61

SANALYS - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

OVERALL TIME LOG

INPUT DATA FROM CARDS AND TAPES = 0.17
FORM (K-W*W*M) FOR E21 = 0.02
FORM FLEXIBILITY MATRIX = 48.86
FORM IMPEDANCE MATRIX = 52.17
FORM (K-W*W*M) FOR EXCAVATED SOIL = 0.02
FORM (K-W*W*M) FOR STRUCTURE = 18.58
FORM (K-W*W*M)+(IMPEDANCE MATRIX) AND REDUCE = 43.98
FORM FREE FIELD MOTION = 0.01
FORM (IMPEDANCE MATRIX)*(F.F.MOTION)/LOAD VECTOR = 15.74
SOLVE FOR TRANSFER FUNCTIONS = 13.85
CREATE FINAL TRANSFER FUNCTION TAPE = 0.05
PRINT ALL TRANSFER FUNCTIONS = 0.02
TOTAL SOLUTION TIME = 193.33

SPOINT2 - 100031-C-04 North Anna ISFSI Pad Analysis - Analys 2

OUTPUT TAPE INFORMATIO

LOGICAL TAPE WRITTEN = TAPE 5

TOTAL NO. OF WORDS = 45099228
TOTAL NO. OF RECORDS = 75
TOTAL NO. OF SECTORS = 127347

LOGICAL TAPE WRITTEN = TAPE 8

TOTAL NO. OF WORDS = 182232
TOTAL NO. OF RECORDS = 1296
TOTAL NO. OF SECTORS = 356

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   1   190531-C-04 North Anna ISFSI Lvl Analysis - Motion 2
   1   14    0    1     20.48
  198   010001   010001   010001   010001   010001   010001
  203   010001   010001   010001   010001   010001   010001
  208   010001   010001   010001   010001   010001   010001
  213   010001   010001   010001   010001   010001   010001
  218   010001   010001   010001   010001   010001   010001
  223   010001   010001   010001   010001   010001   010001
  228   010001   010001   010001   010001   010001   010001
  231   010001   010001   010001   010001   010001   010001
  232   010001   010001   010001   010001   010001   010001
  233   010001   010001   010001   010001   010001   010001
  234   010001   010001   010001   010001   010001   010001
  235   010001   010001   010001   010001   010001   010001
  236   010001   010001   010001   010001   010001   010001
  237   010001   010001   010001   010001   010001   010001
 2048 2000       0.01       1.2
Synthetic DBE (soil) t.h. zpa=0.119 g's. dt=.01. VERTICAL Dir.
 0.009393 0.012356 0.015677 0.015688 0.013426 0.011027 0.010536 0.012238
 0.014883 0.016661 0.016449 0.013685 0.008927 0.002869-0.003215-0.008149
-0.010818-0.011160-0.010078-0.009164-0.009485-0.011269-0.013347-0.014382
-0.013357-0.010662-0.007526-0.005817-0.006773-0.010754-0.016761-0.023343
-0.028826-0.032367-0.033697-0.033385-0.031998-0.030241-0.028333-0.026383
-0.024036-0.021091-0.017338-0.013251-0.009653-0.007875-0.008717-0.012237
-0.016981-0.020739-0.021162-0.016850-0.008585 0.001455 0.010734 0.017333
 0.021212 0.023540 0.026032 0.029278 0.032534 0.033710 0.031012 0.023687
 0.012999 0.001286-0.008684-0.015244-0.017887-0.017476-0.015242-0.012589
-0.010342-0.009133-0.008930-0.009532-0.010215-0.010498-0.010155-0.009938
-0.010939-0.014239-0.019548-0.025208-0.028313-0.026574-0.019452-0.009172
 0.000508 0.005843 0.005513 0.000960-0.004071-0.006177-0.003828 0.001480
 0.006666 0.008686 0.006667 0.001973-0.002455-0.004126-0.001940 0.003135
 0.009305 0.014420 0.017239 0.017000 0.013834 0.008292 0.001778-0.003730
-0.006077-0.004264 0.001106 0.007427 0.011791 0.012271 0.009751 0.007003
 0.007461 0.012525 0.020877 0.028652 0.032399 0.030739 0.025715 0.021212
 0.020741 0.025014 0.031685 0.036591 0.036509 0.030218 0.019810 0.008136
-0.001779-0.008689-0.012426-0.013504-0.012587-0.010196-0.007138-0.004573
 0.003073-0.002553-0.001459 0.001732 0.007465 0.013880 0.017357 0.014372
 0.004443-0.009641-0.022190-0.028375-0.026693-0.019925-0.013731-0.012653
-0.017874-0.026824-0.034614-0.038310-0.037458-0.034941-0.033788-0.035381
-0.038795-0.041594-0.042294-0.041427-0.040686-0.042167-0.045972-0.051065
-0.055396-0.057553-0.056947-0.052547-0.042979-0.026419-0.002589 0.024525
 0.048053 0.059341 0.054452 0.036150 0.014294 0.001076 0.003770 0.021058
 0.043510 0.058680 0.059920 0.048601 0.033811 0.025332 0.027139 0.034743
 0.038457 0.029613 0.007104-0.022796-0.049397-0.064605-0.067472-0.062789
-0.057710-0.056548-0.058512-0.060702-0.060167-0.057705-0.055558-0.054833
-0.053828-0.048180-0.035546-0.018508-0.004322 0.001284-0.011472-0.029605
-0.044041-0.044817-0.030167-0.007942 0.009299 0.012136 0.001044-0.014793
-0.023025-0.016987 0.000330 0.018645 0.027171 0.021437 0.006207-0.009261
-0.016425-0.013352-0.003611 0.006846 0.014609 0.021149 0.029680 0.042177
 0.056357 0.066527 0.067409 0.056894 0.038258 0.016284-0.005037-0.024823
-0.044226-0.063258-0.078812-0.085269-0.078497-0.059318-0.034177-0.012715
-0.001745-0.001533-0.005619-0.005379 0.004653 0.022791 0.041867 0.053514
 0.054208 0.046218 0.036682 0.031787 0.033796 0.039475 0.044078 0.043973
 0.039857 0.035529 0.034871 0.039683 0.047853 0.055674 0.059594 0.057213
 0.049242 0.035858 0.019184 0.000913-0.015596-0.025573-0.025856-0.015363
 0.001595 0.016939 0.022932 0.015058-0.003177-0.024109-0.037893-0.039864
-0.032010-0.021114-0.014518-0.015707-0.022195-0.028800-0.031123-0.028860
-0.025602-0.025517-0.030780-0.039646-0.048127-0.053120-0.053250-0.049586
-0.043412-0.035404-0.025650-0.015382-0.007783-0.006685-0.013902-0.026944
-0.038605-0.040743-0.029109-0.005847 0.020930 0.041932 0.051481 0.049951
 0.042627 0.034419 0.028369 0.023239 0.017121 0.010789 0.005070 0.006638
 0.016149 0.030447 0.042617 0.044354 0.033298 0.011822-0.011997-0.030559
-0.039446-0.038686-0.032217-0.022497-0.010526 0.004364 0.021878 0.038349
 0.048431 0.046756 0.033847 0.014714-0.001905-0.009069-0.005104 0.096240
 0.018903 0.029038 0.037131 0.046201 0.059253 0.074796 0.087711 0.091462
 0.082548 0.061475 0.033168 0.002756-0.025719-0.050757-0.071008-0.084335
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-0.089422-0.083349-0.064301-0.042450-0.022074-0.008416-0.003005-0.035226
-0.042108-0.022548-0.036120-0.052643-0.070322-0.084587-0.091132-0.086938
-0.073681-0.056730-0.042188-0.034420-0.032881-0.037315-0.034063-0.029989
-0.023071-0.016361-0.012327-0.011730-0.012689-0.013153-0.011720-0.008116
-0.002596 0.006001 0.019128 0.037369 0.059095 0.078171 0.089110 0.087707
 0.076179 0.061450 0.051281 0.050487 0.056394 0.062130 0.060808 0.049338
 0.032081 0.015149 0.004073-0.001099-0.004317-0.009924-0.019172-0.028676
-0.033503-0.030804-0.022701-0.014893-0.012839-0.018194-0.027821-0.036298
-0.038552-0.034686-0.026685-0.017579-0.008173 0.002816 0.017420 0.035296
 0.052006 0.061593 0.059414 0.044305 0.020968-0.004534-0.026275-0.042248
-0.052726-0.057920-0.057864-0.049803-0.032063-0.005647 0.024929 0.052300
 0.071469 0.079444 0.078619 0.072710 0.064819 0.056035 0.046700 0.034668
 0.022901 0.012946 0.006907 0.004469 0.003900 0.002645-0.000668-0.005320
-0.008884-0.009364-0.006693-0.002632 0.001145 0.004162 0.008112 0.016114
 0.029149 0.045373 0.059693 0.065550 0.059106 0.039715 0.012842-0.014930
-0.037293-0.050822-0.056345-0.056247-0.053478-0.049884-0.045255-0.039386
-0.030811-0.018781-0.002476 0.015205 0.034227 0.049813 0.057876 0.055168
 0.043110 0.025622 0.009677-0.002584-0.000761 0.002772 0.005646 0.002823
-0.006886-0.022035-0.038371-0.052743-0.062853-0.067977-0.062988-0.065711
-0.059181-0.050235-0.040452-0.031763-0.025223-0.021567-0.019527-0.018182
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 0.012004 0.016976 0.021555 0.026564 0.032123 0.037974 0.044017 0.049635
 0.054934 0.059481 0.063947 0.069152 0.076390 0.085510 0.094702 0.099996
 0.097622 0.084554 0.061996 0.033379 0.004373-0.020517-0.039147-0.052258
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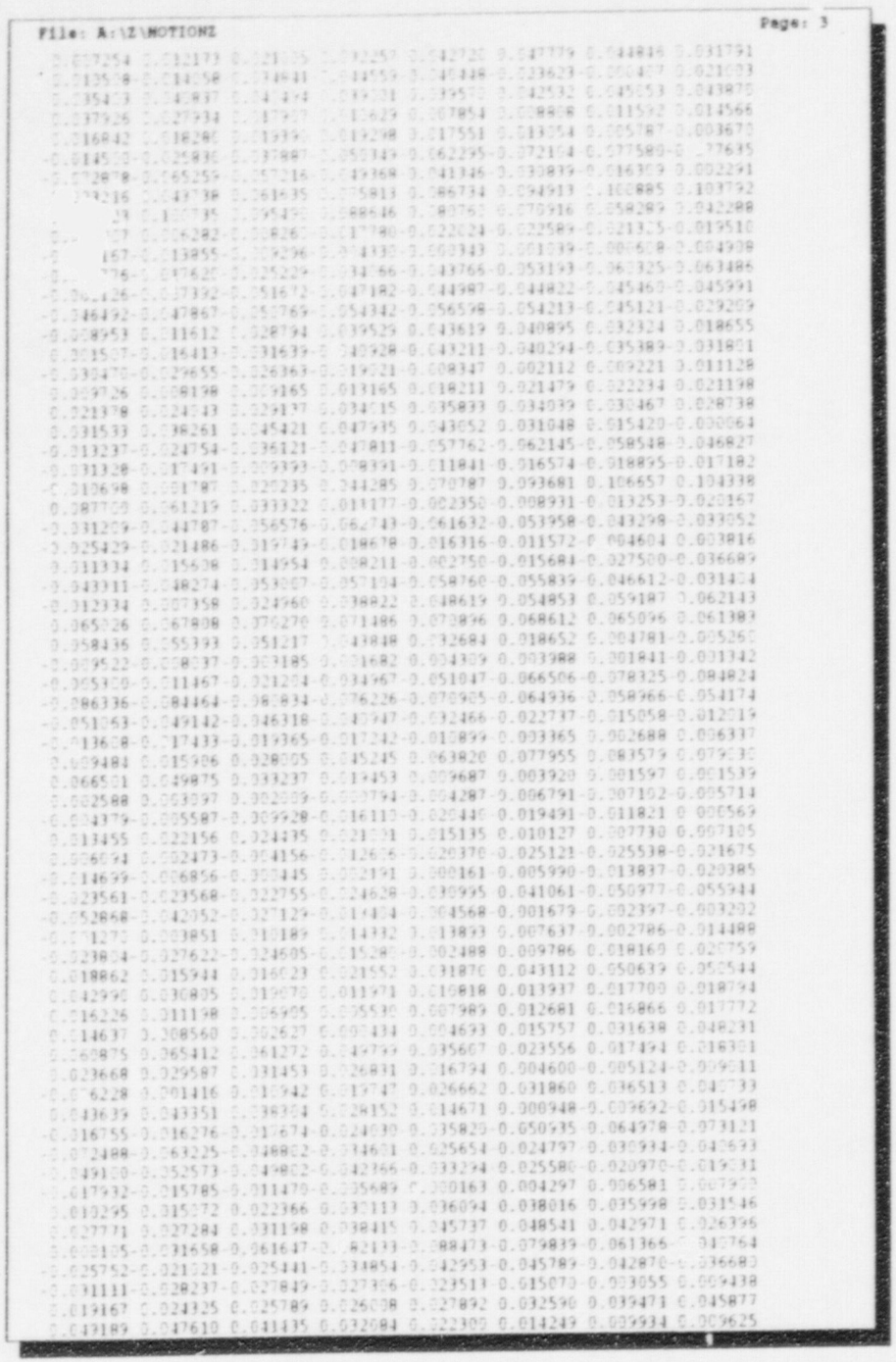

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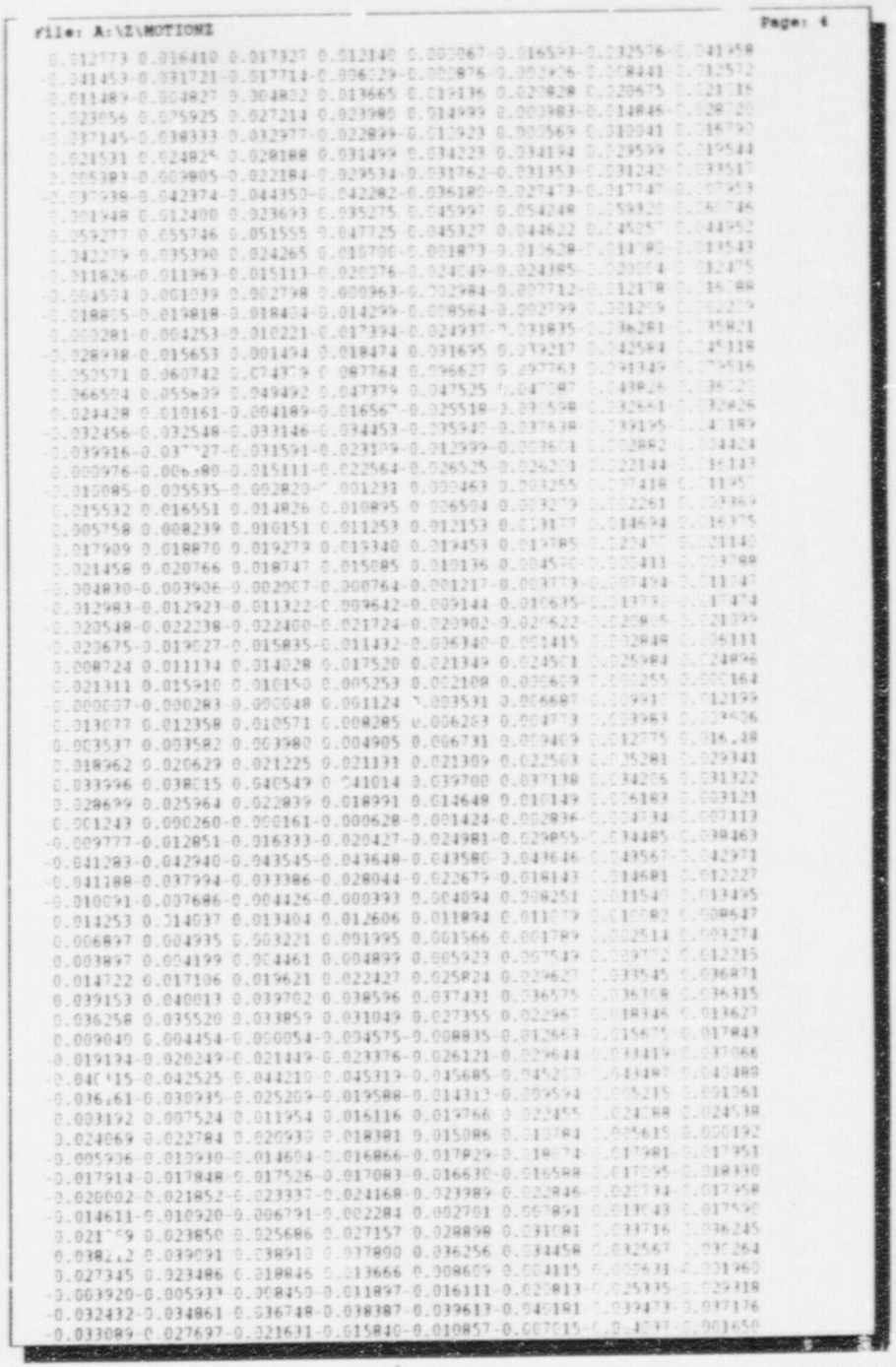

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0.004523 0.003267 0.003454 0.004863 0.006547 0.007344 0.006962 0.005577
0.003992 0.002467 0.000758-0.001569-0.004189-0.006279-0.006973-0.006736

SUPER
S A S S I

PROGRAM MODULE MOTION
INSTALLATION - MARCH 1982

SASSI DEVELOPMENT TEAM
JOHN LUSHER
RAPHAEL GUTAGAR
MANSOUR TABATABAIE
FREDERICK TAJIRIAN
SHAMPIAN YANGAN

*** SUPER SASSI PC-VERSION BY DAN M. DRISCOLL ***
STEVENSON & ASSOCIATES INC.
9217 MIDWEST AVE., CLEVELAND, OHIO 44125

MOTION - 102031-C-04 North Anna ISFSI Pad Analysis - Motion I

GENERAL CONTROL INFORMATION

OPERATION MODE = 1

ANALYSIS TYPE CODE = 1
TOTAL NUMBER OF OUTPUT POINTS = 14
TOTAL NUMBER OF DAMPING VALUES = 0
OUTPUT CODE FOR TIME HISTORIES = 1
DURATION OF TIME HISTORIES FOR PLOT = 20.2800

MOTION - 102031-C-04 North Anna ISFSI Pad Analysis - Motion I

TAPE 8

102031-C-04 North Anna ISFSI Pad Analysis - Analysis I

GENERAL CONTROL INFORMATION

ACCELERATION OF GRAVITY = 32.2000
TOTAL NUMBER OF MODES = 256

FREQUENCIES OF ANALYSIS

NUMBER OF FREQUENCIES = 35
FREQUENCY STEP = 0.029

FREQUENCY NUMBER	FREQUENCY (HZ)	CIRCULAR FREQUENCY (RAD/SEC)	PERIOD (SEC)
2	0.9766E-01	0.6136E+00	0.1024E+02
10	0.2883E+00	0.1058E+01	0.2048E+01
11	0.9766E+00	0.6136E+01	0.1024E+01
45	0.2052E+01	0.1258E+02	0.4995E+00
61	0.2979E+01	0.1871E+02	0.3357E+00
82	0.4054E+01	0.2546E+02	0.2498E+00
102	0.4990E+01	0.3129E+02	0.2008E+00
123	0.6006E+01	0.3774E+02	0.1665E+00
143	0.6982E+01	0.4387E+02	0.1432E+00
164	0.8008E+01	0.5031E+02	0.1249E+00
166	0.8105E+01	0.5093E+02	0.1234E+00
174	0.8496E+01	0.53.3E+02	0.1177E+00
181	0.8818E+01	0.5551E+02	0.1131E+00
184	0.8984E+01	0.5645E+02	0.1113E+00
195	0.9521E+01	0.5981E+02	0.1050E+00
205	0.1001E+02	0.6289E+02	0.9990E-01
215	0.1050E+02	0.6596E+02	0.9526E-01
221	0.1079E+02	0.6780E+02	0.9262E-01
225	0.1099E+02	0.6903E+02	0.9102E-01
229	0.1118E+02	0.7026E+02	0.8943E-01
234	0.1143E+02	0.7179E+02	0.8752E-01
246	0.1201E+02	0.7547E+02	0.8325E-01
266	0.1299E+02	0.8161E+02	0.7699E-01
287	0.1401E+02	0.8805E+02	0.7136E-01
307	0.1499E+02	0.9419E+02	0.6671E-01
328	0.1602E+02	0.1006E+03	0.6248E-01
349	0.1702E+02	0.1132E+03	0.5550E-01
393	0.1919E+02	0.1206E+03	0.5231E-01
403	0.1958E+02	0.1230E+03	0.5107E-01
410	0.2002E+02	0.1258E+03	0.4995E-01
419	0.2048E+02	0.1286E+03	0.4900E-01
471	0.2300E+02	0.1445E+03	0.4348E-01

502	0.2503E+02	0.1571E+03	0.4000E-01
553	0.2700E+02	0.1697E+03	0.3704E-01
634	0.2998E+02	0.1884E+03	0.3336E-01

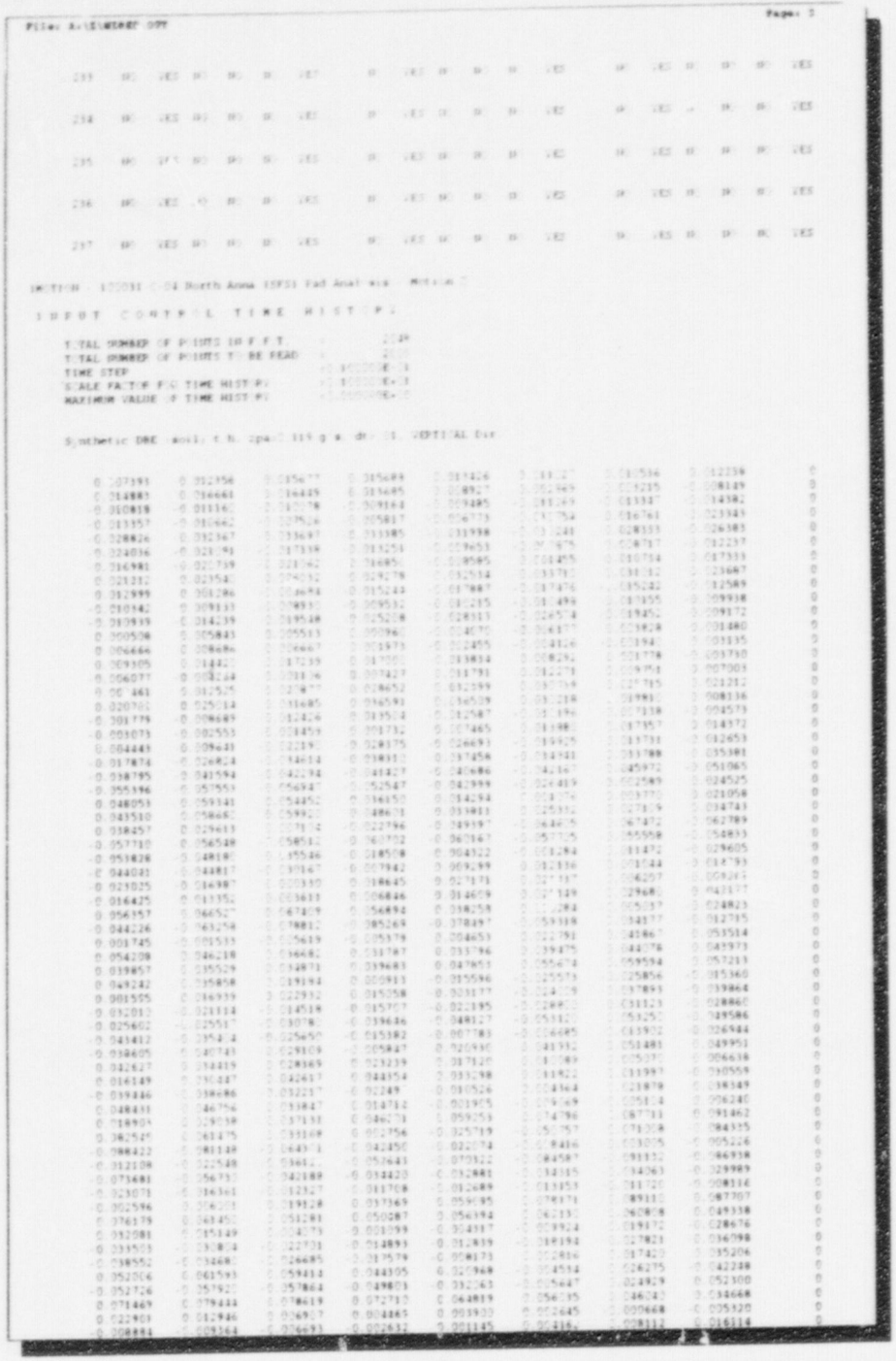
MOTION - 102031-C-04 North Anna ISFSI Pad Analysis - Motion I

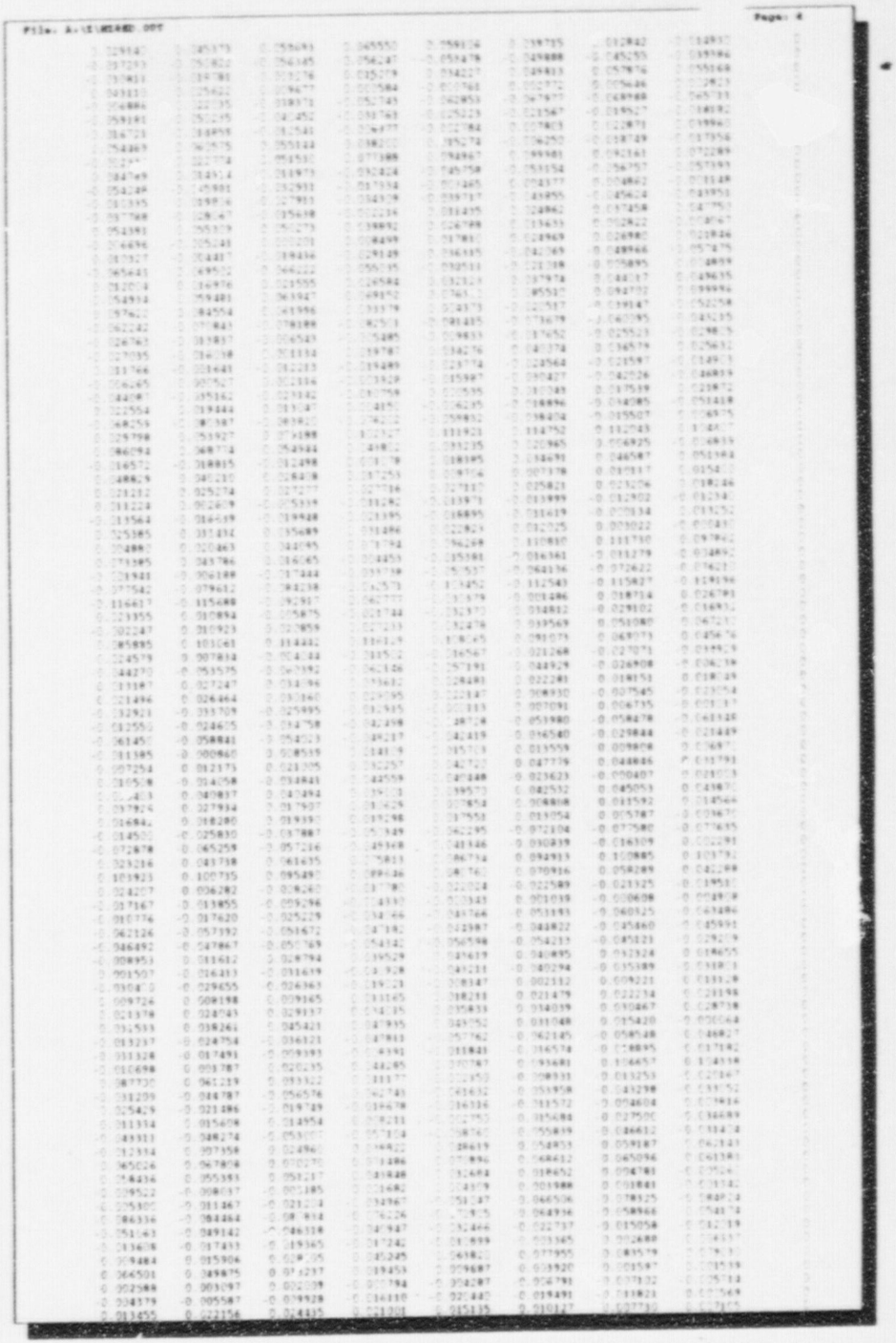
OUTPUT REQUIREMENTS

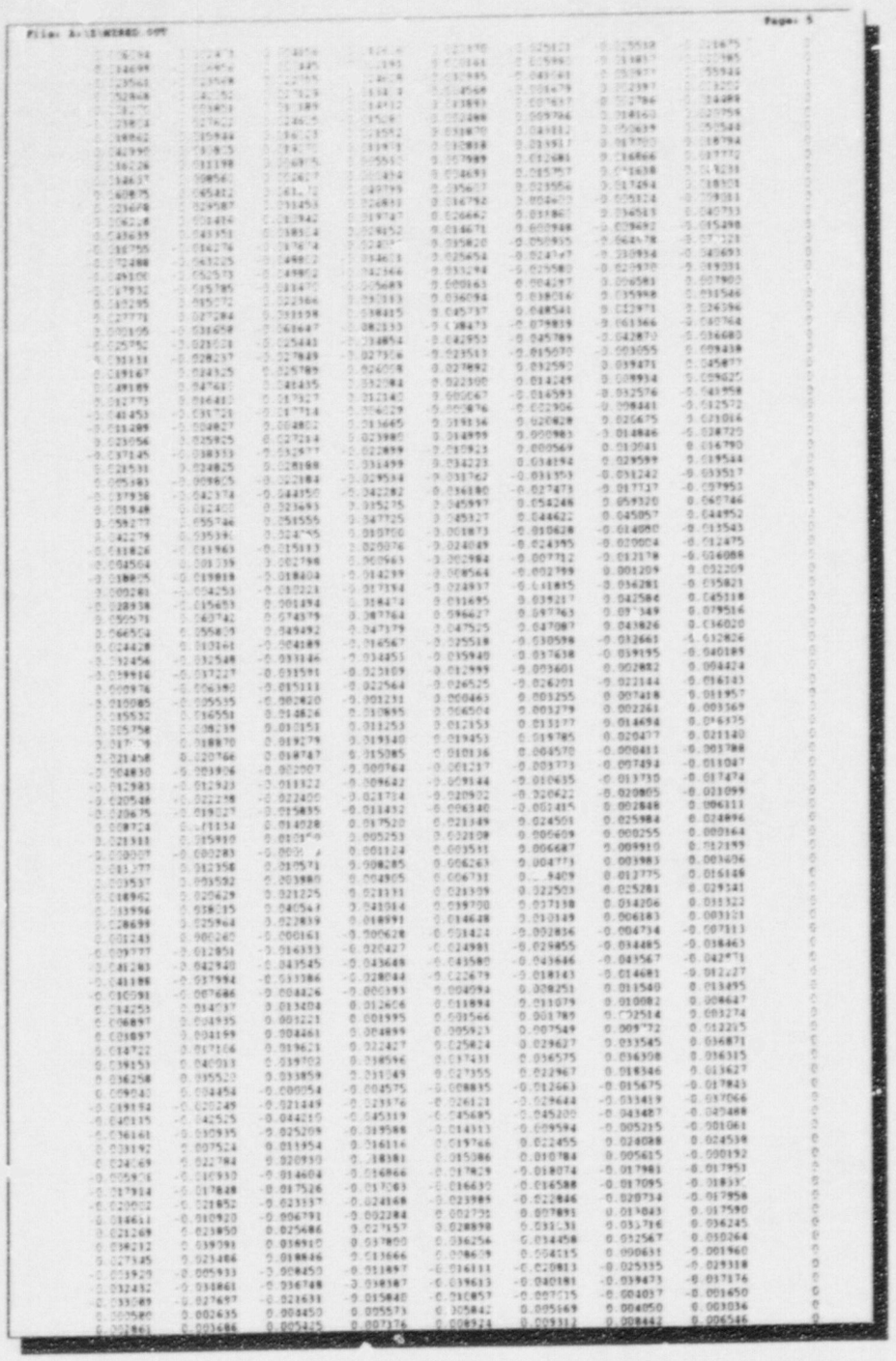
A - PLOT FOURIER AMPLI FUNCTION
B - SAVE ACCEL. TIME HISTORY ON TAPE
C - PLOT ACCEL. TIME HISTORY
D - PLOT ACCEL. AND VELOC. SPECTRUM
E - SAVE ACCEL. AND VELOC. SPECTRUM ON TAPE
F - PRINT MAXIMUM ACCEL.

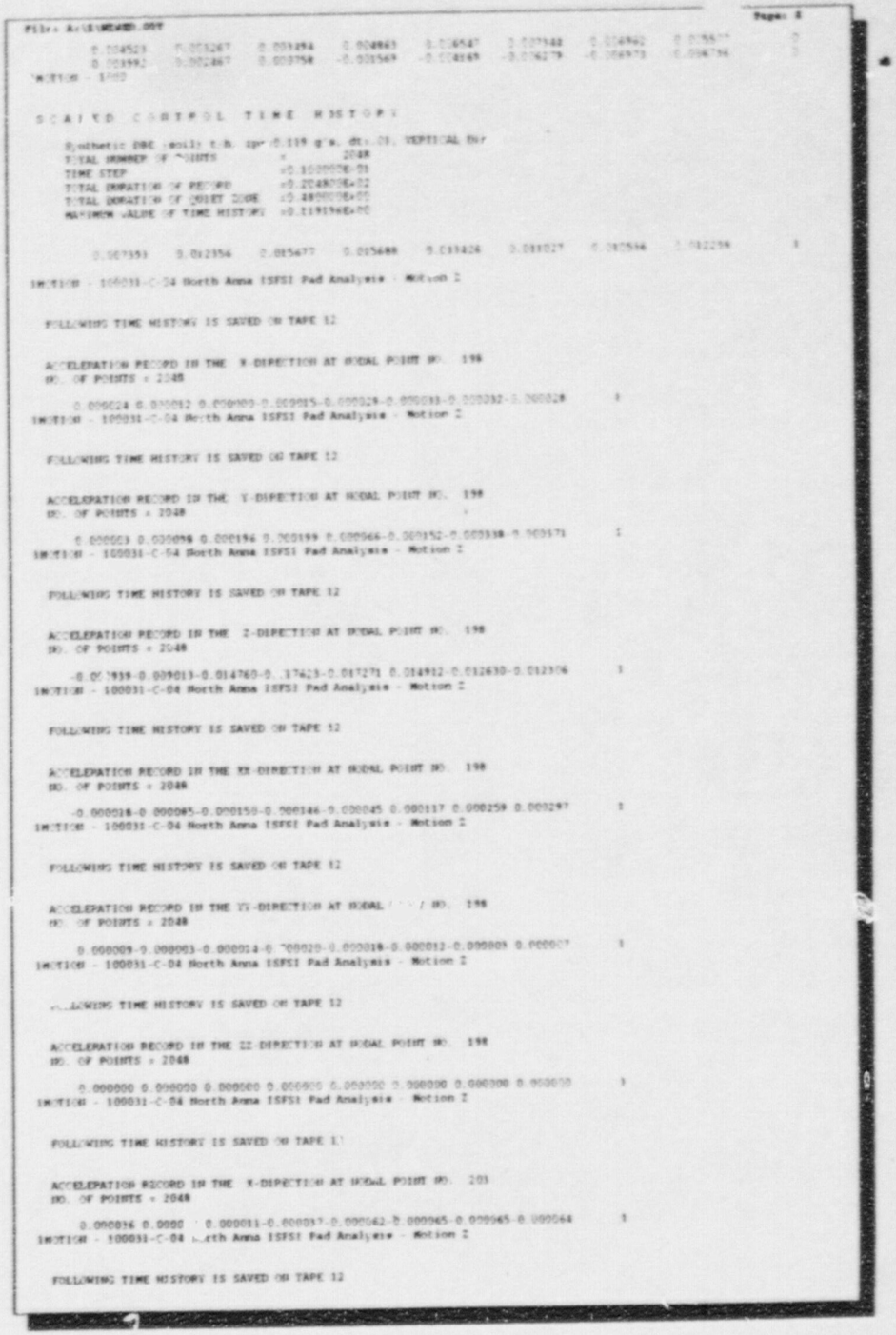
O P NO.	X-DIRECTION						Y-DIRECTION						Z-DIRECTION					
	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
198	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
203	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
208	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
213	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
218	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
223	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
228	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
231	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
232	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
233	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
234	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
235	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
236	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
237	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES

O P NO.	X-DIRECTION						Y-DIRECTION						Z-DIRECTION					
	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F
198	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
203	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
208	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
213	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
218	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
223	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
228	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
233	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES
237	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	YES









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ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

File: A:\[illegible]RED.OUT Page: 8

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 208
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

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1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

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1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 213
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 219
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 219
NO. OF POINTS = 2048

[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

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  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  218
  NO. OF POINTS = 2048

     -0.005359-0.009128-0.014702-0.017185-0.016517-0.014162-0.012902-0.012541        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO.  218
  NO. OF POINTS = 2048

     -0.000107-0.000079-0.000149-0.000151-0.000054 0.000104 0.000246 0.000283        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO.  218
  NO. OF POINTS = 2048

     -0.000002-0.000002-0.000002-0.000002-0.000004-0.000003 0.000015 0.000029        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO.  218
  NO. OF POINTS = 2048

      0.000000 0.000000 0.000000 0.000000 0.000000 0.000007 0.000008 0.000003        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  223
  NO. OF POINTS = 2048

     -0.000242-0.000054-0.000042-0.000032-0.000009-0.000011-0.000391-0.000152        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  223
  NO. OF POINTS = 2048

     -0.000001 0.000094 0.000196 0.000199 0.000063-0.000153-0.000329-0.000355        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  223
  NO. OF POINTS = 2048

     -0.005256-0.009110-0.014571-0.017190-0.016764-0.014574-0.012647-0.012672        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO.  223
  NO. OF POINTS = 2048

     -0.000015-0.000082-0.000147-0.000144-0.000043 0.000116 0.000253 0.000284        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO.  223
  NO. OF POINTS = 2048

     -0.000014-0.000020-0.000016 0.000003 0.000026 0.000041 0.000042 0.000018        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12
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  ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO.  223
  NO. OF POINTS = 2048

      0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  228
  NO. OF POINTS = 2048

     -0.000016 0.000031 0.000093 0.000279-0.000082-0.000174-0.000369-0.000404        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  228
  NO. OF POINTS = 2048

     -0.000010 0.000092 0.000175 0.000171 0.000036-0.000164-0.000311-0.000305        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  228
  NO. OF POINTS = 2048

     -0.005224-0.009496-0.015344-0.017814-0.016801-0.014071-0.011858-0.011941        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO.  228
  NO. OF POINTS = 2048

     -0.000006-0.000069-0.000131-0.000124-0.000023 0.000127 0.000240 0.000243        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO.  228
  NO. OF POINTS = 2048

      0.000022 0.000059 0.000096 0.000090 0.000018-0.000084-0.000161-0.000174        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO.  228
  NO. OF POINTS = 2048

      0.000000 0.000000-0.000001-0.000001 0.000000 0.000000 0.000001 0.000001        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  X-DIRECTION AT NODAL POINT NO.  231
  NO. OF POINTS = 2048

      0.000195 0.000121 0.000015-0.000090-0.000167-0.000199-0.000183-0.000119        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Y-DIRECTION AT NODAL POINT NO.  231
  NO. OF POINTS = 2048

      0.000115 0.000767 0.001436 0.001437 0.000477-0.001092-0.002474-0.002844        1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

  FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

  ACCELERATION RECORD IN THE  Z-DIRECTION AT NODAL POINT NO.  231
  NO. OF POINTS = 2048
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[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 231
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 232
NO. OF POINTS = 2048

0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 233
NO. OF POINTS = 2048

0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

[illegible] 1

MOTION - 100731-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

0.000034-0.000[illegible]-0.000[illegible] [illegible] [illegible] [illegible] 0.00255 0.000[illegible] 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

-0.000011-0.000009-0.000001 0.000004 0.000059 0.000002-0.000032 0.000003 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 234
NO. OF POINTS = 2048

0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.000044-0.000051-0.000047-0.000057-0.000079-0.000054 0.000043 0.000153 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

0.000014 0.000706 0.001434 0.001492 0.002546 0.003996-0.002358-0.002787 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.003340-0.009227-0.014718-0.017204-0.016519-0.014161-0.012289-0.011529 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

0.000300-0.000076-0.000158-0.000167-0.000066 0.000106 0.000260 0.000303 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

-0.000002-0.000002-0.000002-0.000002-0.000004-0.000002 0.000014 0.000031 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 235
NO. OF POINTS = 2048

0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 236

NO. OF POINTS = 2048

-0.000148-0.000259-0.000173-0.000026 0.000204 0.000323 0.000249-0.000038 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.000077 0.000731 0.001410 0.001418 0.000462-0.001086-0.002413-0.002786 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.003237-0.009109-0.014507-0.017208-0.016776-0.014574-0.012636-0.012660 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000027-0.000179-0.000156-0.000159-0.000054 0.000117 0.000266 0.000304 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

-0.000014-0.000021-0.000018 0.000002 0.000027 0.000043 0.000045 0.000021 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 236
NO. OF POINTS = 2048

0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE X-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

0.000153 0.000498 0.000889 0.000819 0.000155-0.000874-0.001715-0.001862 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Y-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

0.000093 0.000624 0.001270 0.001238 0.000269-0.001189-0.002304-0.002345 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE Z-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

-0.003203-0.009495-0.015367-0.017835-0.016915-0.014070-0.011845-0.011827 1
1MOTION - 100031-C-04 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE XX-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

0.000001-0.000067-0.000141-0.000139-0.000033 0.000129 0.000255 0.000263 1

SMOTION - 100531-C-24 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE YY-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

[illegible] 1
SMOTION - 100531-C-24 North Anna ISFSI Pad Analysis - Motion 2

FOLLOWING TIME HISTORY IS SAVED ON TAPE 12

ACCELERATION RECORD IN THE ZZ-DIRECTION AT NODAL POINT NO. 237
NO. OF POINTS = 2048

[illegible] 1
SMOTION - 100531-C-24 North Anna ISFSI Pad Analysis - Motion 2

M A X I M U M   A B S O L U T E   A C C E L.

N.P.	X-ACC	AT TIME	Y-ACC	AT TIME	Z-ACC	AT TIME
198	0.0006	3.7300	0.0033	7.9900	0.1335	7.2500
203	0.0019	5.7200	0.0032	7.9900	0.1333	7.2500
208	0.0030	5.7200	0.0031	7.9900	0.1315	7.2500
213	0.0036	5.7200	0.0031	5.6800	0.1295	7.2500
218	0.0037	3.7200	0.0032	5.7400	0.1294	7.2500
223	0.0039	5.9400	0.0034	5.7400	0.1304	7.2500
228	0.0058	5.7300	0.0027	1.9800	0.1287	7.2500
231	0.0024	8.4500	0.0263	7.9900	0.1336	7.2500
232	0.0058	3.7900	0.0255	7.9900	0.1334	7.2500
233	0.0062	3.7800	0.0244	5.6800	0.1316	7.2500
234	0.0066	5.7600	0.0243	5.6800	0.1295	7.2500
235	0.0064	8.2100	0.0253	5.7400	0.1294	7.2500
236	0.0067	5.8950	0.0268	5.7400	0.1304	7.2500
237	0.0221	5.6800	0.0205	1.9800	0.1288	7.2500

MAXIMUM ABSOLUTE ANGULAR ACCELERATIONS (RADS/SEC/SEC)

N.P.	XX-ACC	AT TIME	YY-ACC	AT TIME	ZZ-ACC	AT TIME
198	0.0028	7.9900	0.0002	6.1000	0.0000	8.5100
203	0.0027	7.9900	0.0005	3.7900	0.0000	8.4500
208	0.0026	5.6800	0.0006	3.7800	0.0000	2.1000
213	0.0026	5.6800	0.0005	8.1200	0.0000	8.3400
218	0.0027	5.7400	0.0006	8.1600	0.0000	2.3500
223	0.0029	5.7400	0.0009	8.1300	0.0000	2.0600
228	0.0022	5.6800	0.0021	5.6800	0.0000	5.7400
231	0.0029	7.9900	0.0002	6.0400	0.0000	8.5100
232	0.0028	7.9900	0.0005	3.7900	0.0000	8.4500
233	0.0027	5.6800	0.0006	3.7800	0.0000	2.1000
234	0.0027	5.6800	0.0006	8.1200	0.0000	8.3400
235	0.0028	5.7400	0.0007	8.1600	0.0000	2.3500
236	0.0030	5.7400	0.0009	8.1300	0.0000	2.0600
237	0.0021	1.9800	0.0022	5.6800	0.0000	5.7400

BLANKS IN THE ABOVE TABLES ARE DOFS WHERE OUTPUT HAS NOT BEEN REQUESTED

ATTACHMENT B

DIGITIZED FILES

File Name	Description	Date
analysx	Input to ANALYS, x direction	5/09/97 15:13
analysx.out	Output of ANALYS, x direction	5/13/97 20:57
motionx	Input to MOTION, x direction	5/13/97 11:39
mxred.out	Output* of MOTION, x direction	6/06/97 10:10
analysy	Input to ANALYS, y direction	5/09/97 15:13
analysy.out	Output of ANALYS, y direction	5/13/97 23:59
motiony	Input to MOTION, y direction	5/13/97 10:55
myred.out	Output* of MOTION, y direction	6/06/97 10:01
analysz	Input to ANALYS, z direction	5/09/97 15:14
analysz.out	Output of ANALYS, z direction	5/14/97 03:15
motionz	Input to MOTION, z direction	5/13/97 10:56
mzred.out	Output* of MOTION, z direction	6/06/97 10:19
mxzip.zip	Zipped output of MOTION, x direction	6/06/97 09:19
myzip.zip	Zipped output of MOTION, y direction	6/06/97 09:20
mzzip.zip	Zipped output of MOTION, z direction	6/06/97 09:21
acc231.xls	Excel file, node 231	6/09/97 13:20
acc232a.xls	Excel file, node 232	6/09/97 13:23
acc233a.xls	Excel file, node 233	6/09/97 13:26
acc234a.xls	Excel file, node 234	6/09/97 13:29
acc235a.xls	Excel file, node 235	6/09/97 13:32
acc236a.xls	Excel file, node 236	6/09/97 13:38
acc237a.xls	Excel file, node 237	6/09/97 13:41

TOTAL PAGES, INCLUDING COVER SHEET: 9 Diskettes and 1 Sheet

Note: Signature at the top of this sheet signifies that all contained documents have been verified.