

SRV ENVELOPE
REQUIRED RESPONSE SPECTRA (RRS)
FOR THE REACTOR BUILDING

RIVER BEND STATION - UNIT 1
GULF STATES UTILITIES COMPANY
WEST FELICIANA PARISH, LOUISIANA

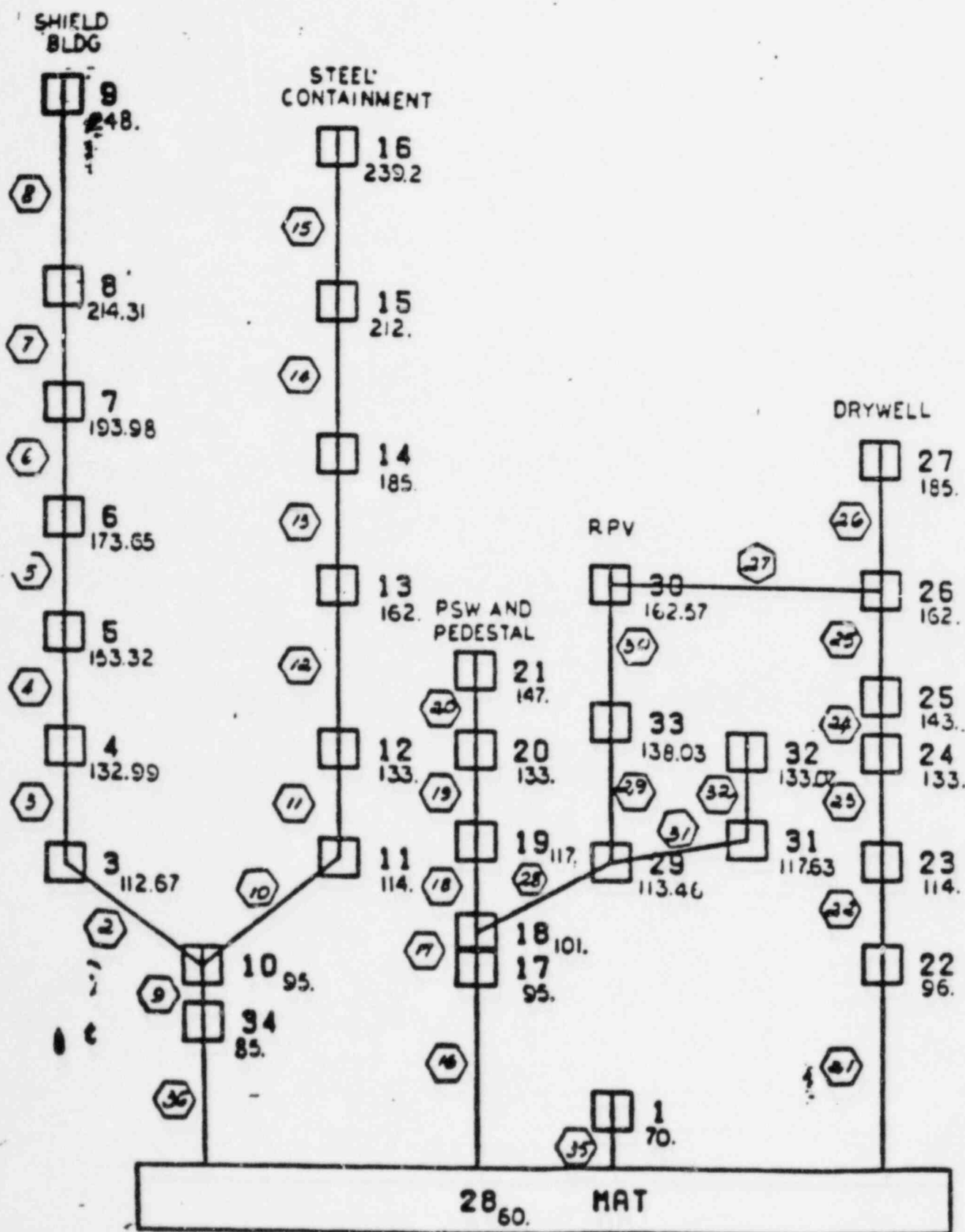
STONE & WEBSTER ENGINEERING CORPORATION
CHERRY HILL OPERATIONS CENTER
CHERRY HILL, NEW JERSEY

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REQUIRED RESPONSE SPECTRA (RRS)

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None - Weir Wall	91.25	134

*Each reference number includes SRV envelope for horizontal and vertical direction at 2 percent damping.

G.S.U - R.B.1 - J.O 12210 CALC 201.130.124 - A.K.LE
SEISMIC ANALYSIS OF REACTOR BUILDING W/CONCRETE FIX



119-719

7 MAR 1983

SRV
PEPECTRA VER DN LEV DB
GULF STATES UTILITIES-RBS UNIT 1-CALCIP210-NM17-SQE-1903 REV113
RMS OF ACC--REACTOR BLDG--EL=60.000, MASS=28 SEIS MODEL-- MAY
PEAK SPREAD 3-15Z
DISK CURVE SET NO.27

DAMPING VALUE = 0.020

FOR DIRECTION

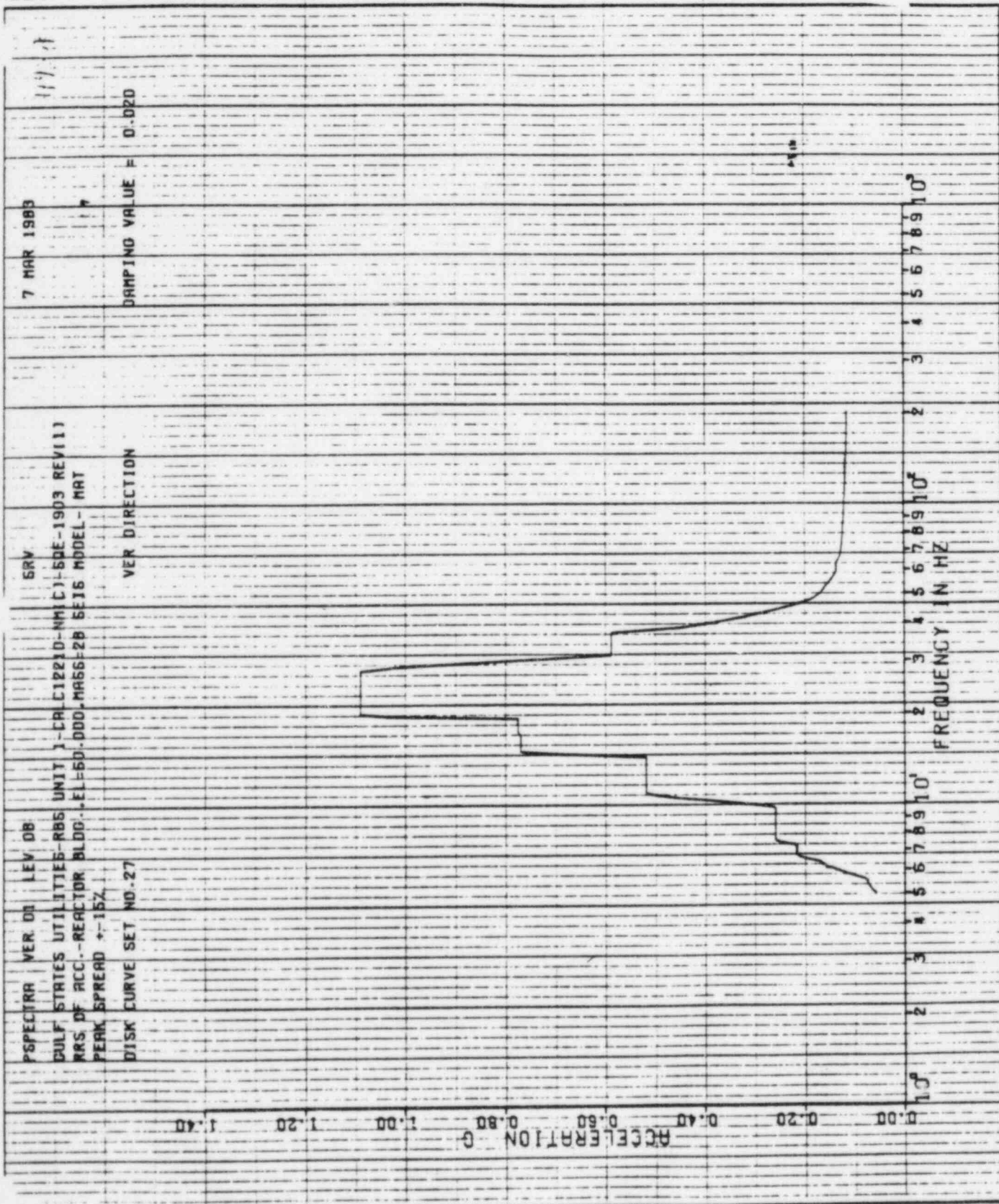
REF 102

ACCELERATION G
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 3 4 5 6 7 8 9 10¹
FREQUENCY IN HZ



REF 102



7 MAR 1968

11-11-68

DAMPING VALUE = 0.020

SRV
SPECTRA VER DB LEV DB
GULF STATES UTILITIES-RBS UNIT 1-CALC12210-WM(C)-LSOE-1903 REV(1)
RBS OF ACC. REACTOR BLDG. ELE-70.000, MASS-01 SEIS MODEL TOP OF MAT
PEAK SPREAD 7-15Z
D16X CURVE SET NO. 1
HOR DIRECTION

ACCELERATION G
1.40 1.20 1.00 0.80 0.60 0.40 0.20 0.00



PSPECTRA VER 01 LEV 08

GULF STATES UTILITIES-RBS UNIT 1-CALC12810-NM1C7-SOE-1908 REV117
RRE OF ACC-REACTOR BLDG., EL-70.000, MASS-01 SEIS MODEL-TOP OF MAT
PEAK SPREAD 1-15Z

DISK CURVE SET NO. 1

VER. DIRECTION

DAMPING VALUE = 0.020

7 MAR 1988

11-25-88

REF 103

ACCELERATION - G

1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00

FREQUENCY IN HZ

10⁰
2 3 4 5 6 7 8 9 10¹
2 3 4 5 6 7 8 9 10²
2 3 4 5 6 7 8 9 10³

PEPECTARR VER 01 LEV DB
 DULF STATES UTILITIES-RBS UNIT 1-CRCL12210-NM C1-50E-1903 REV113
 RRS OF ACC-REACTOR BLDG..EL-112.67, MASS-03 SE16 MODEL-SHIELD BLDG
 PERK SPREAD 1-15Z

7 MAR 1988

11-11-1

DRAWING VALUE = 0.020

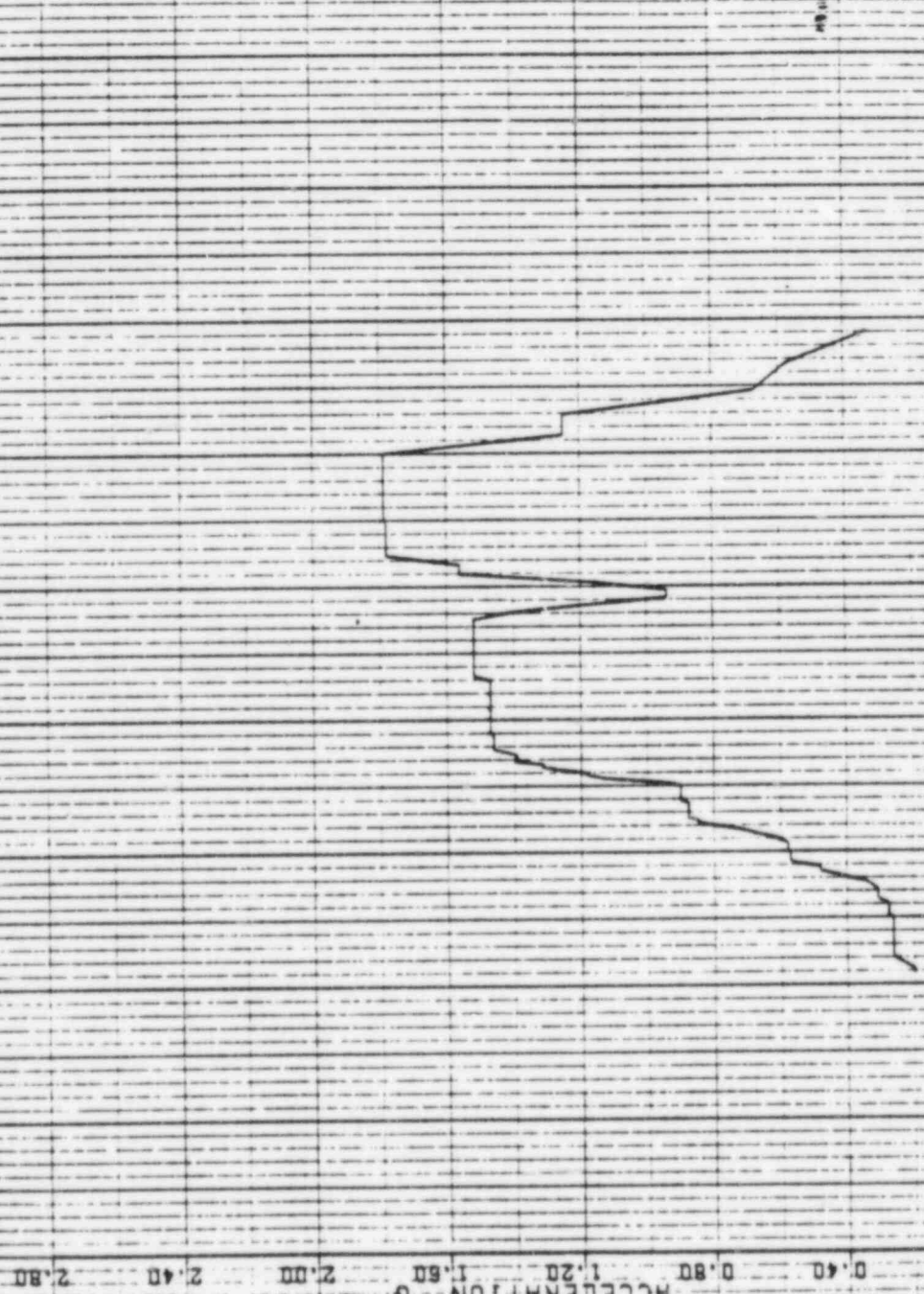
HOR DIRECTION

DISK CURVE SET NO-2

ACCELERATION - G

REF 104

FREQUENCY IN HZ



11-4-5-2

7 MAR 1969

PSPECTRA VER DI LEV DB
 GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NN(C)-SDE-1969 REV111
 RRS OF ACC-REACTOR BLDG-ELLE12-67, MASS-09 SEIS MODEL-SHIELD BLOC
 PERK SPREAD > 15Z

DAMPING VALUE = 0.020

VER DIRECTION

DISK CURVE SET NO.2

ACCELERATION G



FREQUENCY IN HZ

PSPECTRA VER 01 LEV 08

SRV

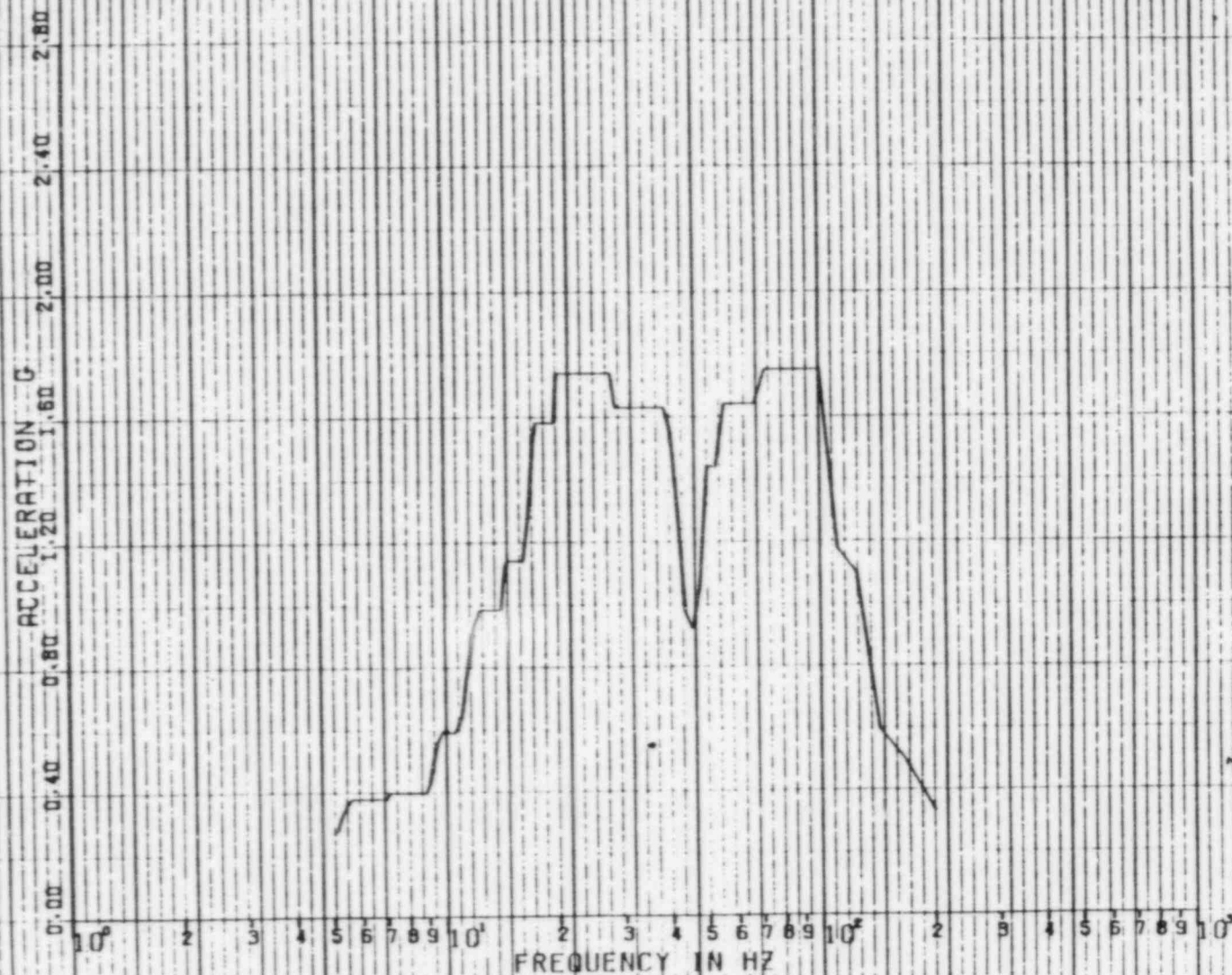
7 MAR 1988

GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NM(C)-SDE-1903 REV113
RRS OF ACC.-REACTOR BLDG.-EL=192.99.MASS=04 SEIS MODEL-SHIELD BLDG
PEAK SPREAD: +/-15%

DISK CURVE SET NO.3

HDR DIRECTION

DAMPING VALUE = 0.020



REF 105

REF 105

11.07.73

7 MAR 1985

PSPECTRA VER D1 LEV 08
 GULF STATES UTILITIES-RBS UNIT 1-CRUC12210-WN C1-50E-1903 REV111
 RRS OF ACC--REACTOR BLDG., EL-192.99, MASS=0.1 SEIS MODEL-SHIELD 0.006
 PEAK SPREAD ±1.5Z
 DISK CURVE SET NO. 5

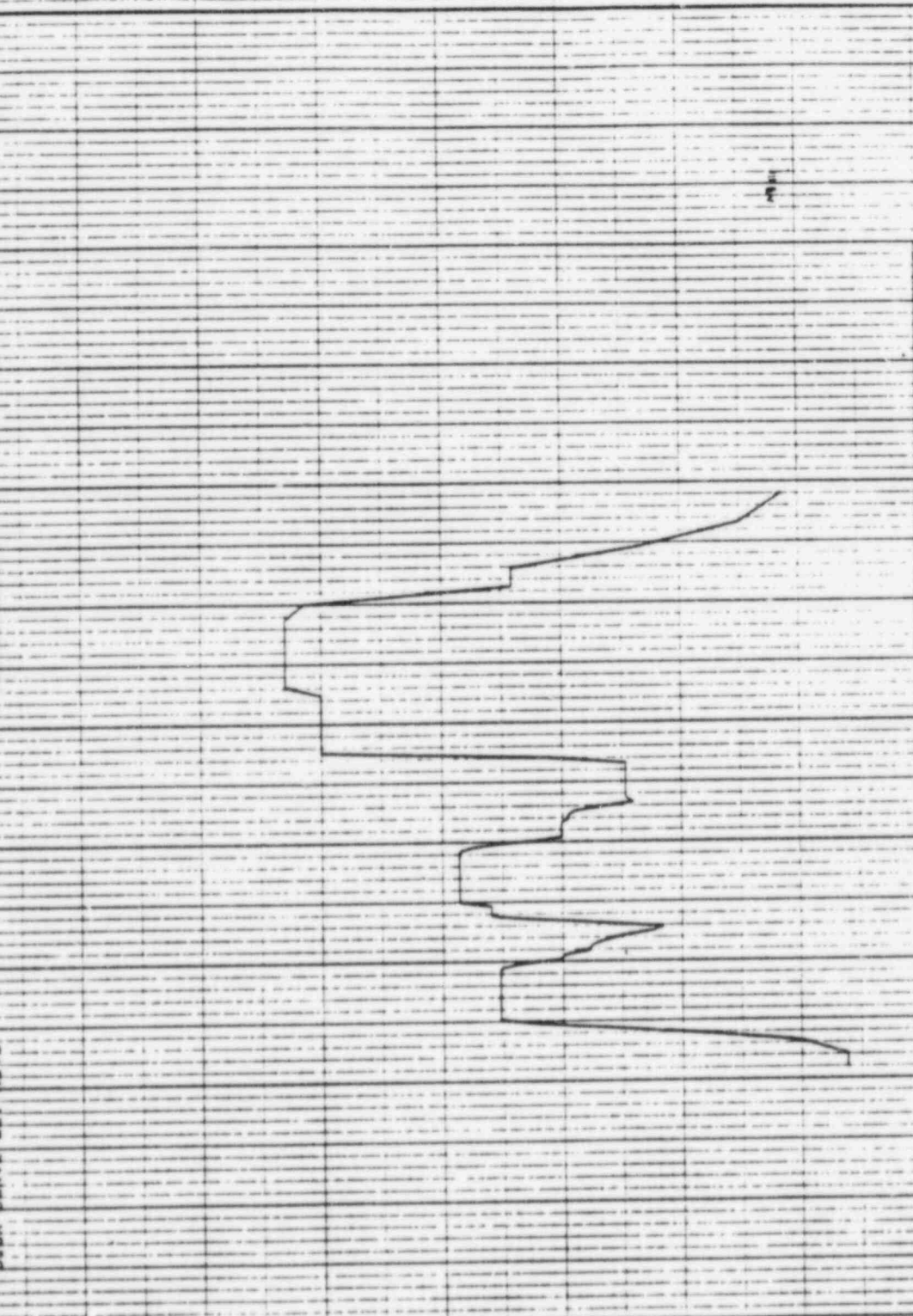
SNV

DAMPING VALUE = 0.020

VER DIRECTION

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

FREQUENCY IN HZ 10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10²



REF 106

1.904

7 MAR 1985

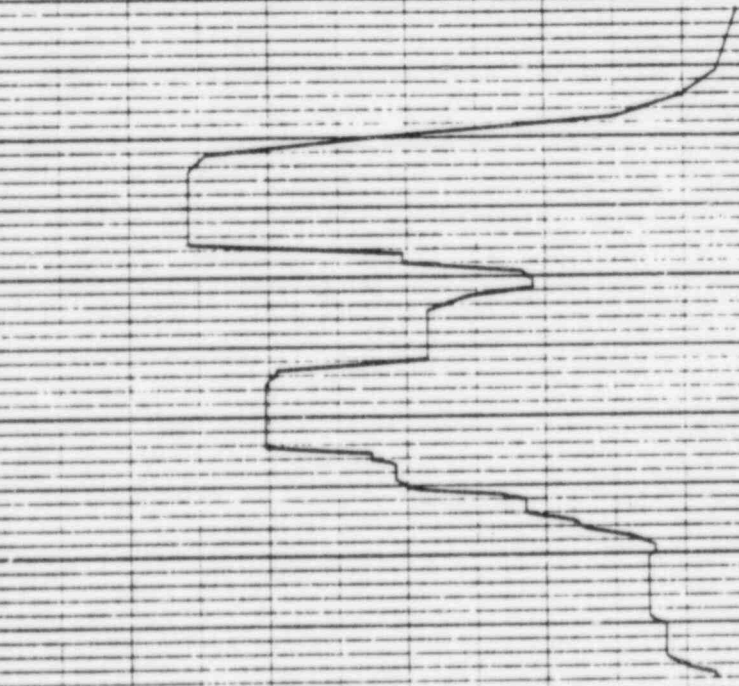
PSPECTRA VER ON LEV DB
 GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NMIC7-50E-1805 REV1.7
 RRS OF ACC--MERCYDR BLDG--EL-159.52-MASSED05 SET6 MODEL-SHIELD 0LOG
 PERK SPREAD #152
 DISK CURVE SET NO.4

DAMPING VALUE = 0.020

HDR DIRECTION

ACCELERATION 0 0.80 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.00 8.80 9.60 10.40 11.20 12.00 12.80 13.60 14.40 15.20 16.00 16.80 17.60 18.40 19.20 20.00 20.80 21.60 22.40 23.20 24.00 24.80 25.60 26.40 27.20 28.00 28.80 29.60 30.40 31.20 32.00 32.80 33.60 34.40 35.20 36.00 36.80 37.60 38.40 39.20 40.00 40.80 41.60 42.40 43.20 44.00 44.80 45.60 46.40 47.20 48.00 48.80 49.60 50.40 51.20 52.00 52.80 53.60 54.40 55.20 56.00 56.80 57.60 58.40 59.20 60.00 60.80 61.60 62.40 63.20 64.00 64.80 65.60 66.40 67.20 68.00 68.80 69.60 70.40 71.20 72.00 72.80 73.60 74.40 75.20 76.00 76.80 77.60 78.40 79.20 80.00 80.80 81.60 82.40 83.20 84.00 84.80 85.60 86.40 87.20 88.00 88.80 89.60 90.40 91.20 92.00 92.80 93.60 94.40 95.20 96.00 96.80 97.60 98.40 99.20 100.00

FREQUENCY IN HZ 10 2 3 4 5 6 7 8 9 10 2 3 4 5 6 7 8 9 10 2 3 4 5 6 7 8 9 10



11-11-1

7 MAR 1985

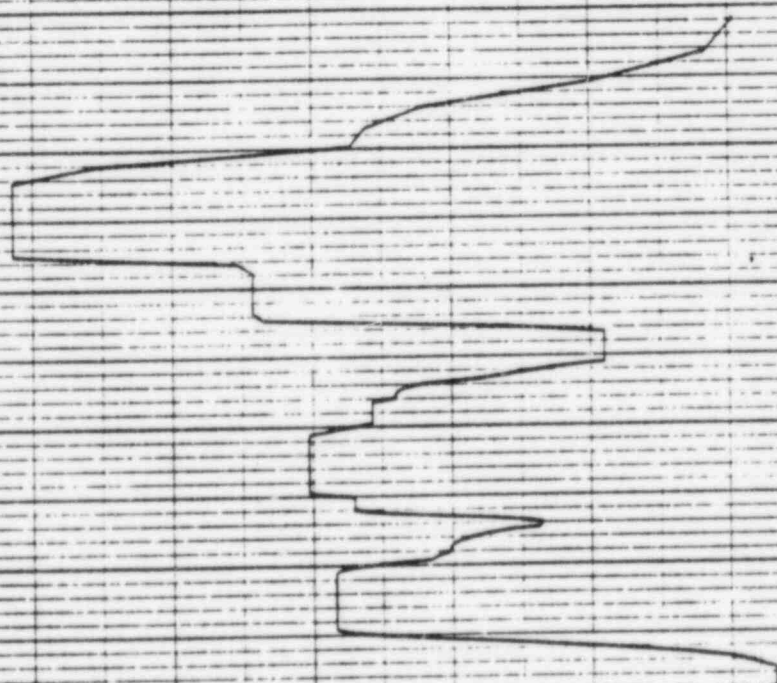
PSPECTRA VER D0 LEV DB
CULF STATES UTILITIES-R85 UNIT 3-CALCIPID-NMCTJ-50E-1909 REV113
RRS OF REC.-REACTOR BLDG.-EL-159-32-MASSED05 SE16 MODEL-SHIELD BLDG
PERK SPREAD 5-15Z
DISK CURVE SET NO.4

ERV

DAMPING VALUE = 0.020

VER DIRECTION

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10²
FREQUENCY IN HZ

REF 106

REF 107

1.50 H

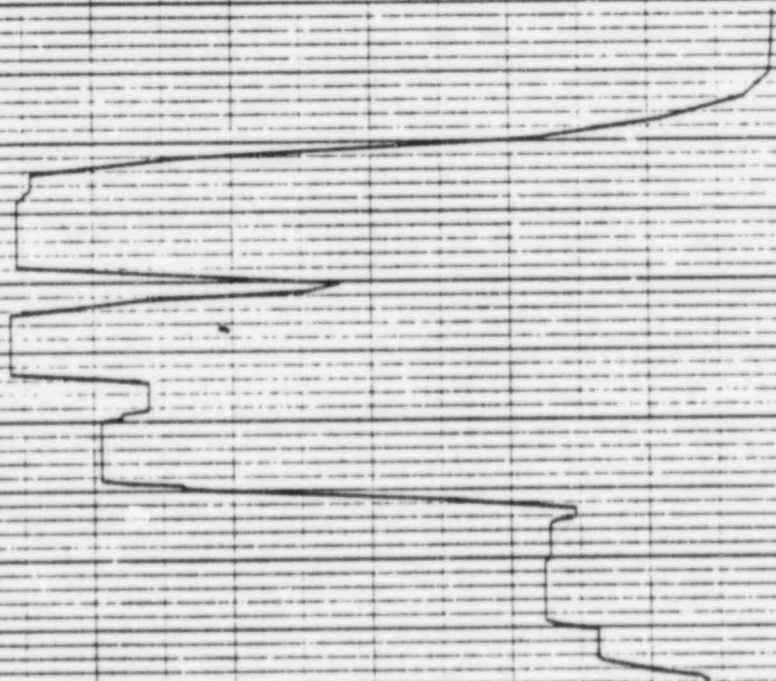
7 MAR 1983

DAMPING VALUE = 0.020

SRV
PSPECTRA VER 01 LEV 08
CALF STATES UTILITIES-RBS UNIT 1-CALC1221D-MMICJ-SDE-1903 REV111
RRS OF ACC.-REACTOR BLDG.-EL-173.65.MASS-06 SE16 MODEL-SHIELD BLDG
PEAK SP/END *-15Z
DISK CURVE SET NO.5

HDR DIRECTION

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ
10⁰ 10¹ 10² 10³

REF 107

7 MAR 1983

SRV
VER DIRECTION
DAMPING VALUE = 0.020
PSECTRA VER ON LEV DB
GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NM1C1-5DE-1903 REV111
RRS OF ACC-REACTION BLDG.-EL-173.65, MASS-D6, SEIS MODEL-SHIELD BLDG
PEAK SPREAD +-15Z
DISK CURVE SET NO.5

VER DIRECTION

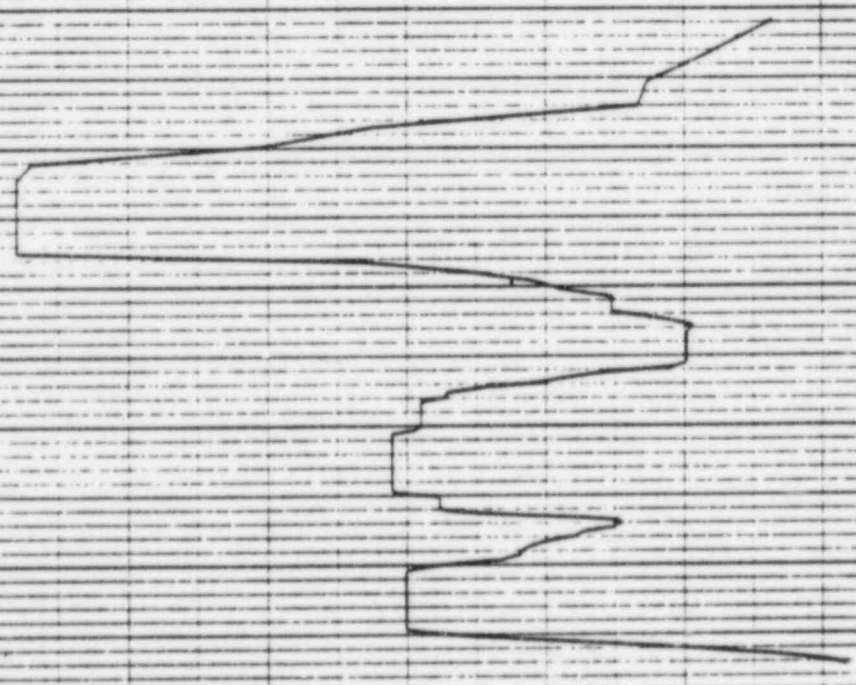
DISK CURVE SET NO.5

VER DIRECTION

DAMPING VALUE = 0.020

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² 3 4 5 6 7 8 9 10³
FREQUENCY IN HZ



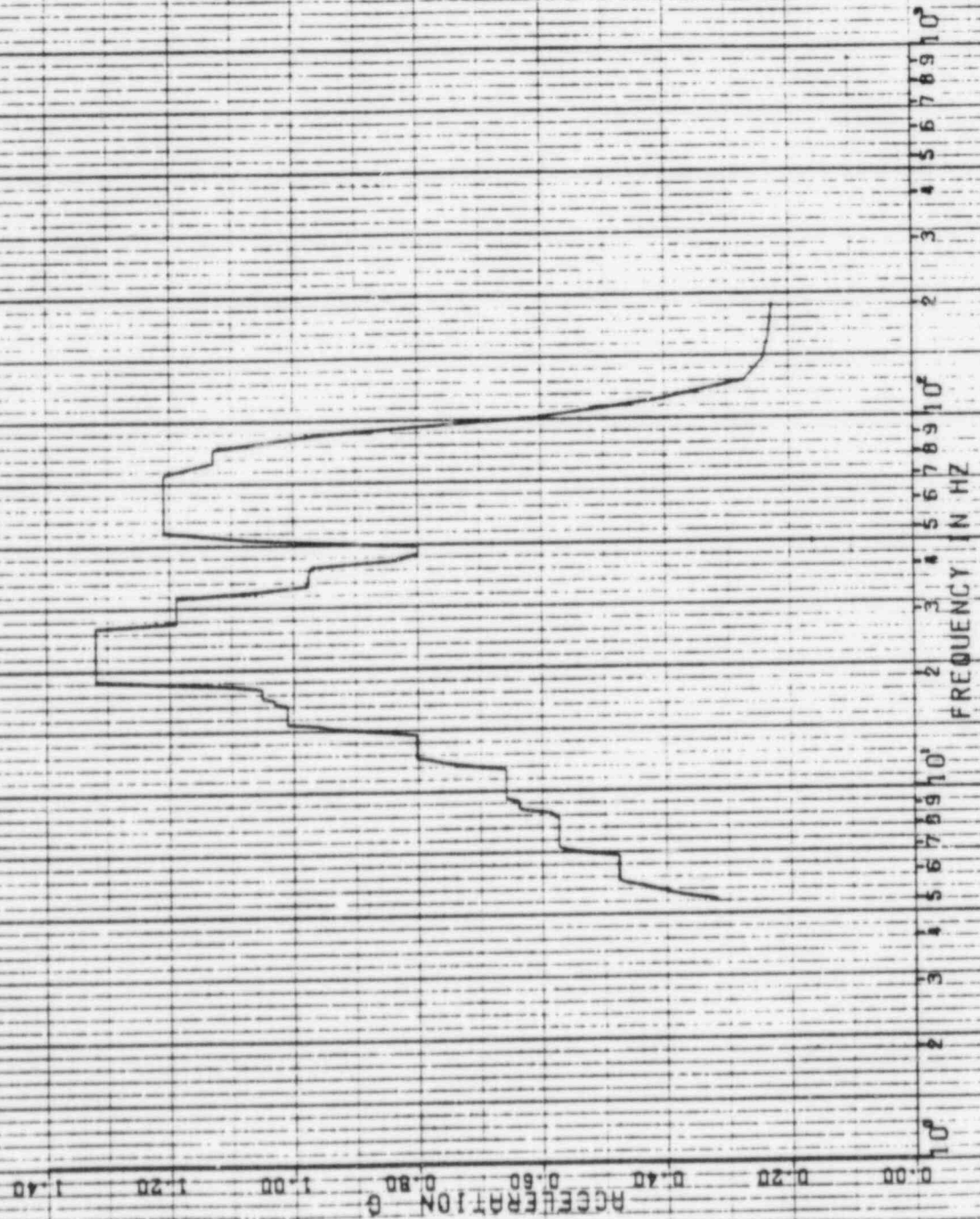
REF 108

WIS 4

7 MAR 1985

SRV
HOR DIRECTION
DAMPING VALUE = 0.020

PSPECTRA VER D3 LEV DB
DULF STATES UTILITIES-RBS UNIT 1-CALC12210-MNCT1-SOE-1903 REV11
KKS OF ACC.-REACTOR BLDG.-EL-193.98-MRSGED7, 6E15 MODEL-SHIELD BLDG
PEAK SPREAD +/- 15%
DISK CURVE SET NO. 6



REF 108

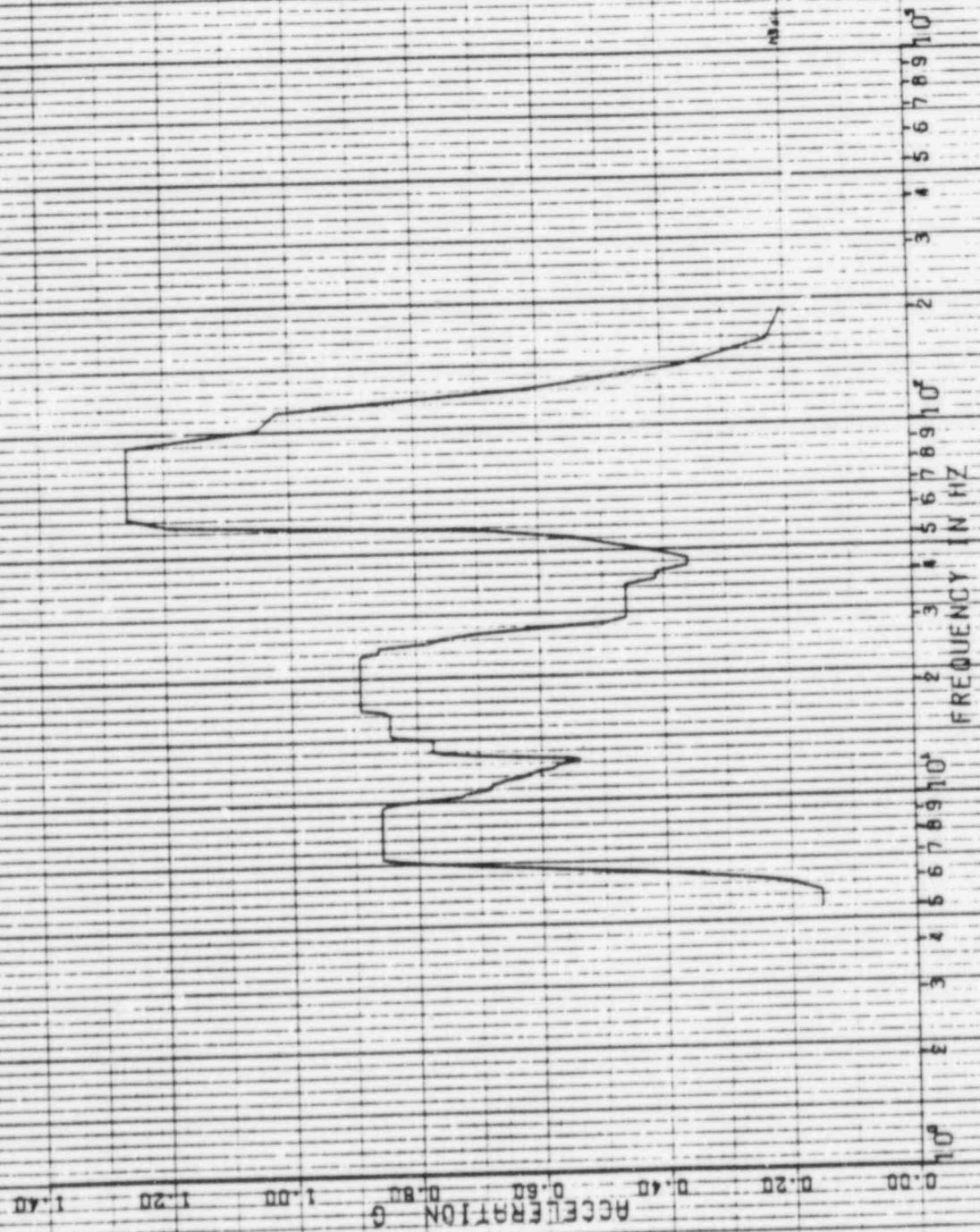
7 MAR 1983

SRV

PERPECTOR VER DA LEV OB
 GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NM1CJ-50F-1903 REV11)
 RRS OF ACC.-REACTOR BLDG.-EL-193.88.MRSS-07 5E16 MODEL-SHIELD BLOC
 PEAK SPREAD 9-15Z
 DISK CURVE SET NO.6

DAMPING VALUE = 0.020

VER DIRECTION



PSPECTRA VER 01 LEV 08

DULF STATES UTILITIES-RBS UNIT 1-CALCIPED-NMICH-5DE-1909 REV113
RMS OF ACC.-REACTOR BLDG.-EL-214.51-MASSED-DB SEIS MODEL-SHIELD BLDG
PERK SPREAD 3-15Z

DISK CURVE SET NO. 7

HDR DIRECTION

DAMPING VALUE = 0.020

7 MAR 1989

REF 109

ACCELERATION 0 0.80 1.20 1.60 2.00 2.40 2.80

FREQUENCY IN HZ 10² 2 3 4 5 6 7 8 9 10³



PERSPECTIVE VER. DB LEV. DB
 GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NM1C7-5DE-1903 REV(1)
 RMS OF ACC.-REACTOR BLDG.-EL-214.91.MASS-DB 5E16 MODEL-SHIELD BLDG
 PEAK SPREAD. +/- 15Z
 DISK CURVE SET NO. 7

7 MAY 1983

DAMPING VALUE = 0.020

VER. DIRECTION

ACCELERATION

REF 109

FREQUENCY IN HZ



4064

7 MAR 1983

PSPE TRA VER D1 LEV DB
GULF STATES UTILITIES-RBS UNIT 1-CALC1221D-NM1C71-5DE-1903 REV117
RBS OF REC.-REACTOR BLDG.-EL-24B.00.MH55-09 SETS MODEL-SHIELD BLOC
PERK SPREED 2-15Z
DISK CURVE SET NO.8

SRV

DAMPING VALUE = 0.020

HOR DIRECTION

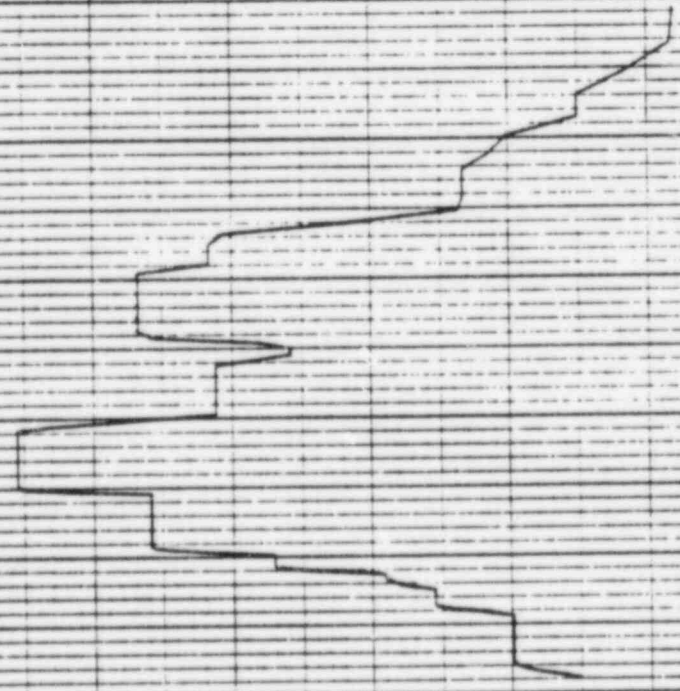
ACCELERATION

FREQUENCY IN HZ

REF 110

1.40 1.20 1.00 0.80 0.60 0.40 0.20 0.00

10⁰



PSPECTRA VER 01 LEV DB

DULF STATES UTILITIES-RBS UNIT 1-CALC1221D-NM1C3-SDE-1903 REV11
ARS OF ACC.-REACTOR BLDG.-EL-248-DD, MASS-DB SEIS, MODEL-5HIELD BLDG
PEAK SPREAD: X-15Z

DISK CURVE SET NO. B

VER. DIRECTION

DAMPING VALUE = 0.020

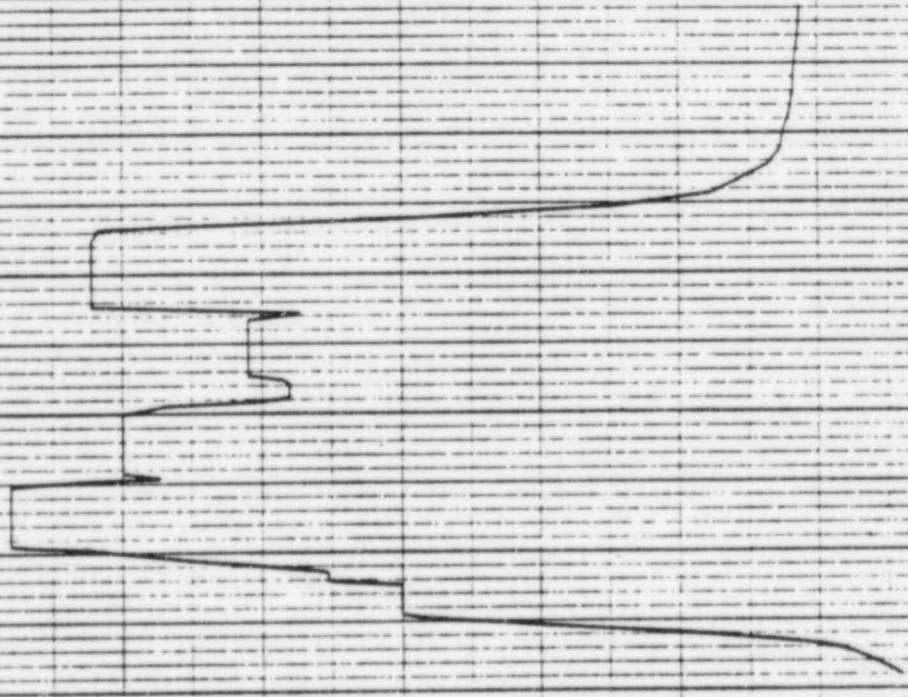
7 MAR 1988

1.1.1.47

REF 110

ACCELERATION 0 0.80 1.60 2.00 2.40 2.80

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10²
FREQUENCY IN HZ



PSPECTRA VER D01 LEV DB

GULF STATES UTILITIES-RB6 UNIT 3-CALC1222D-NMICH-5DE-1803 REV111
RRS OF REC-REACTOR BLDG..FL-95.000, MASS-10 SEIS MODEL-CDMP-SND-B00
PERK SPREAD 4-15Z

DISK CURVE SET NO.9

WDR DIRECTION

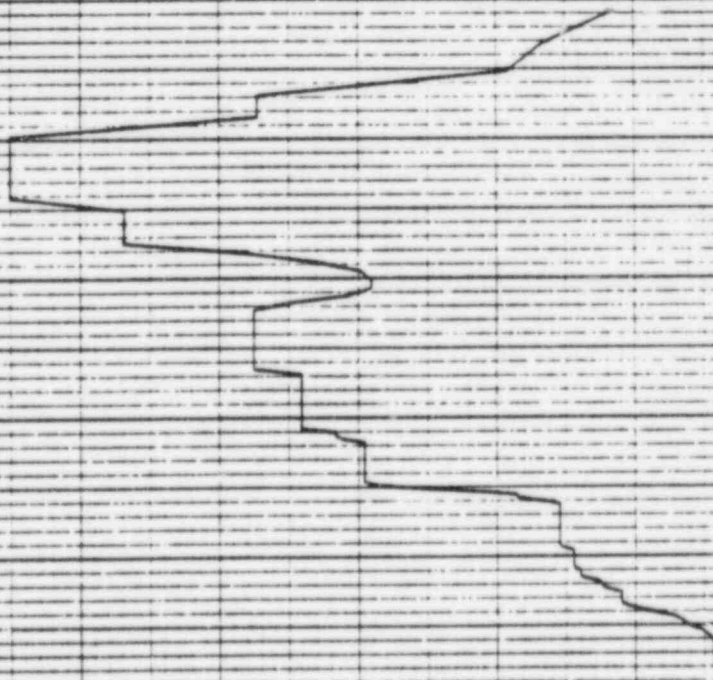
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7 MAR 1985

REF 111

ACCELERATION G

FREQUENCY IN HZ



REF 111

7 MAR 1983

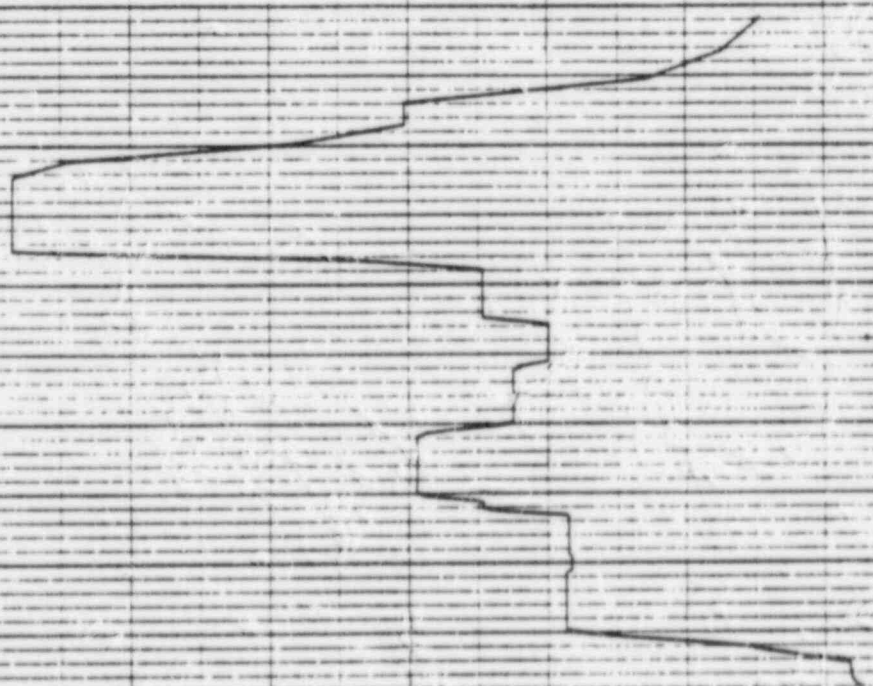
SRV
P5PECTRA VER D3 LEV DB
DULF STATES UTILITIES-PBS UNIT 1-CR121210-AMICJ-5DE-1903 REV11D
RRS OF ACC--REPEYDR BLDG--LE-95-000-MASS-1D SEIS MODEL-COMP-5MD-800
PERK SPREAD --15Z
DISK CURVE SET NO.9

DAMPING VALUE = 0.020

VER DIRECTION

ACCELERATION -G

FREQUENCY IN HZ



REF 112

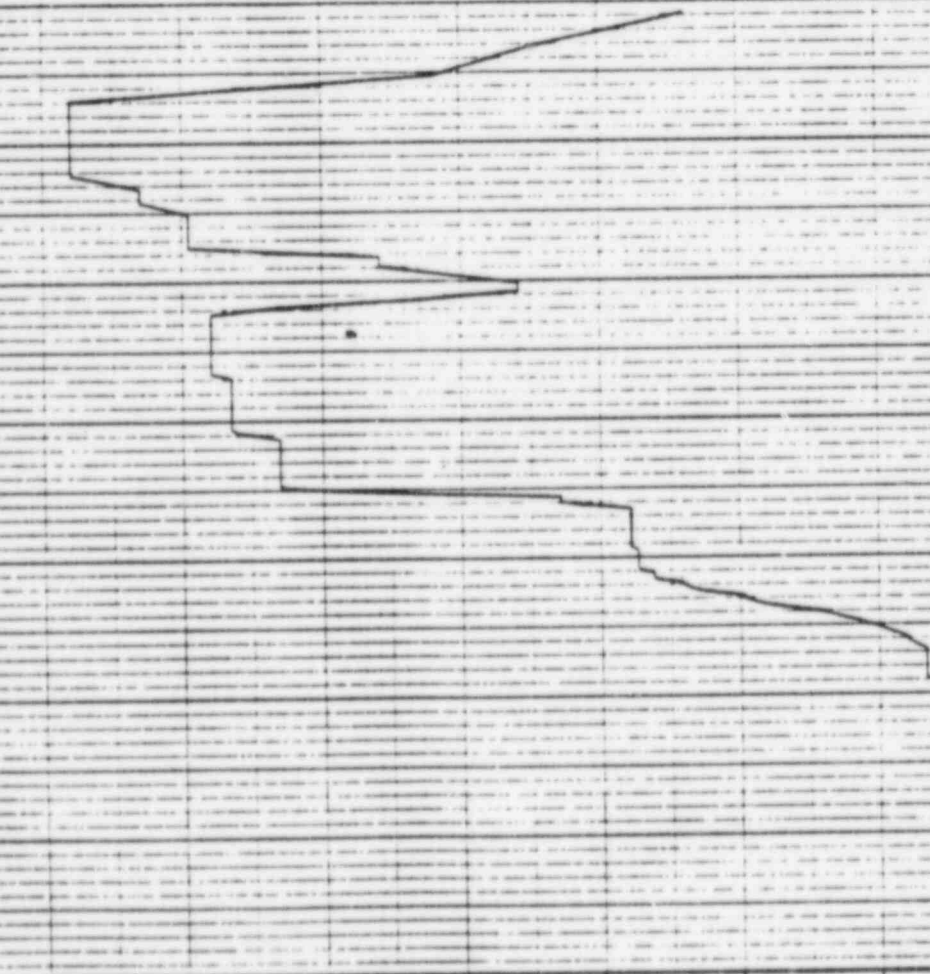
7 MAR 1969
DAMPING VALUE = 0.020

PSPECTRA VER DB LEV DB
GULF STATES UTILITIES-RBS UNIT 3-CALC12210-NM1C3-6QE-1909 REV113
RBS OF ACC--REACTOR BLDG--EL-85-DDO, RBS5-34 SE15 MODEL-CMP-SHO-BLOC
PEAK SPREAD 9-15Z
DISK CURVE SET NO. 32

HOR DIRECTION

ACCELERATION G

FREQUENCY IN HZ



REF 112

7 MAR 1985

SRV

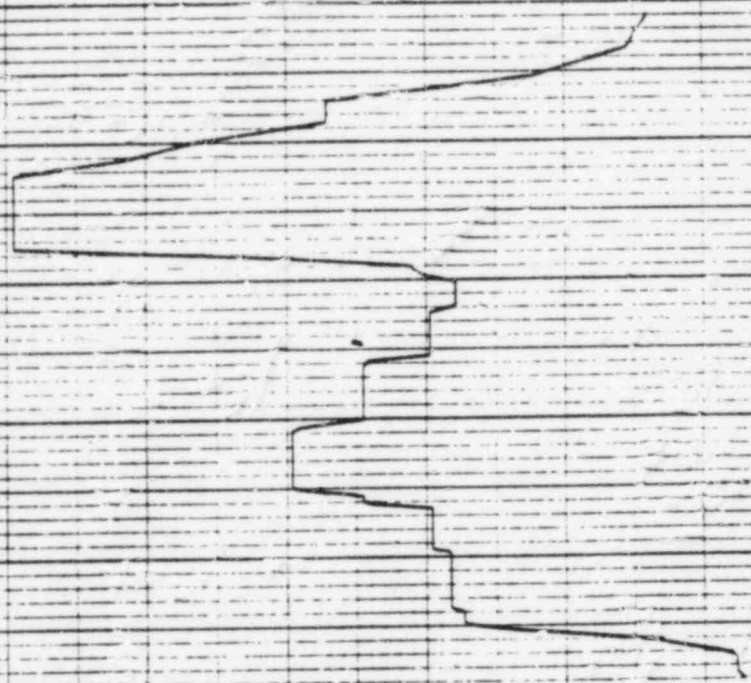
P6SPECTRA VER 01 LEV 08
DULF STATES UTILITIES-R85 UNIT 1-CALC1221D-MMIC7-5DE-1805 REV117
RRS OF ACC.-REACTOR BLDG. EL-85.000, MASS-34 SE16 MODEL-COMP-5ND-8LOG
PEAK SPREAD +/-15Z
DISK CURVE SET NO.32

DAMPING VALUE = 0.020

VER DIRECTION

ACCELERATION G

FREQUENCY IN HZ



7 MAR 1988

PSPECTRA VER DA LEV DB
GULF STATES UTILITIES-RBS UNIT 1-CR-C1221D-NM1CJ-SDE-1809 REV11D
RBS OF REC.-REACTOR BLDG.-EL-114-DD-NR55-11 SE16 MODEL-STEEL CONT
PEAK SPREAD +-15Z

DAMPING VALUE = 0.020

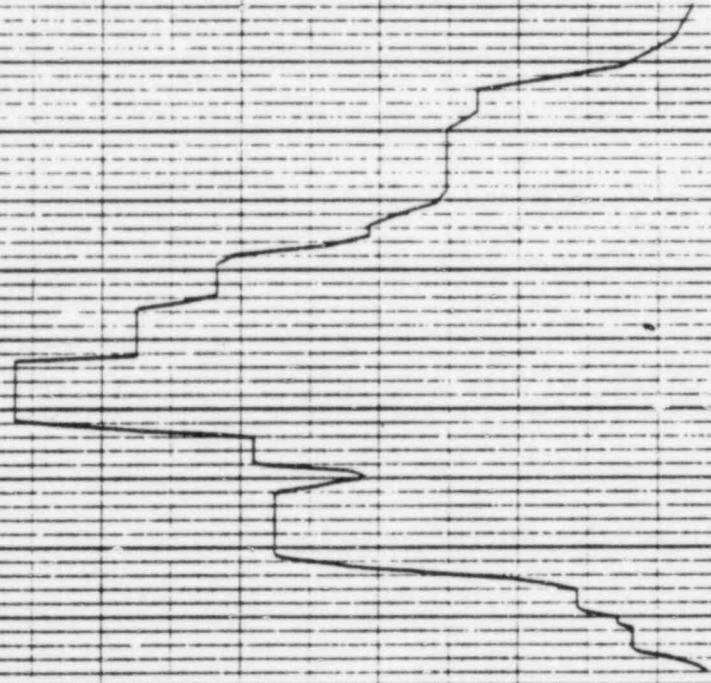
HOR DIRECTION

DISK CURVE SET NO. 10

REF 113

ACCELERATION 0 0.80 1.60 2.40 2.80

FREQUENCY IN HZ
10⁰
2 3 4 5 6 7 8 9 10¹
2 3 4 5 6 7 8 9 10²
2 3 4 5 6 7 8 9 10³



1614

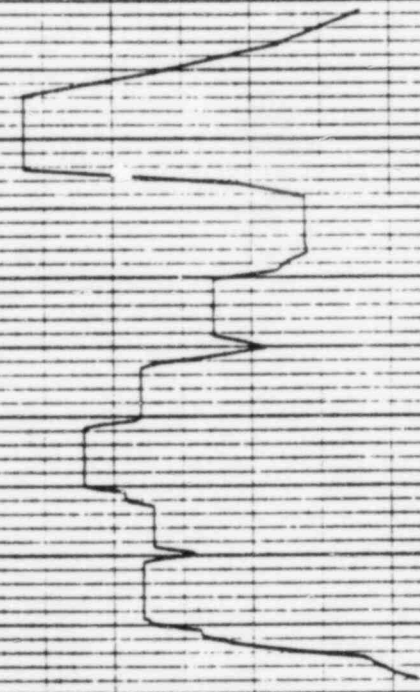
7 MAR 1983

REF 113

SRV
PSECTRA VER D1 LEV DB
GULF STATES UTILITIES-RB6 UNIT 1-CALC12210-NM171-5DE-1903 REV11
RRS OF ACC-REACTOR BLDG..EL=114.00.MASS=11 SEIS MODEL-STEEL CONT
PEAK SPREAD = 15Z
DISK CURVE SET NO.10
VER. DIRECTION
DAMPING VALUE = D.D2D

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰
2 3 4 5 6 7 8 9 10¹
FREQUENCY IN HZ
2 3 4 5 6 7 8 9 10²
3 4 5 6 7 8 9 10³



111200

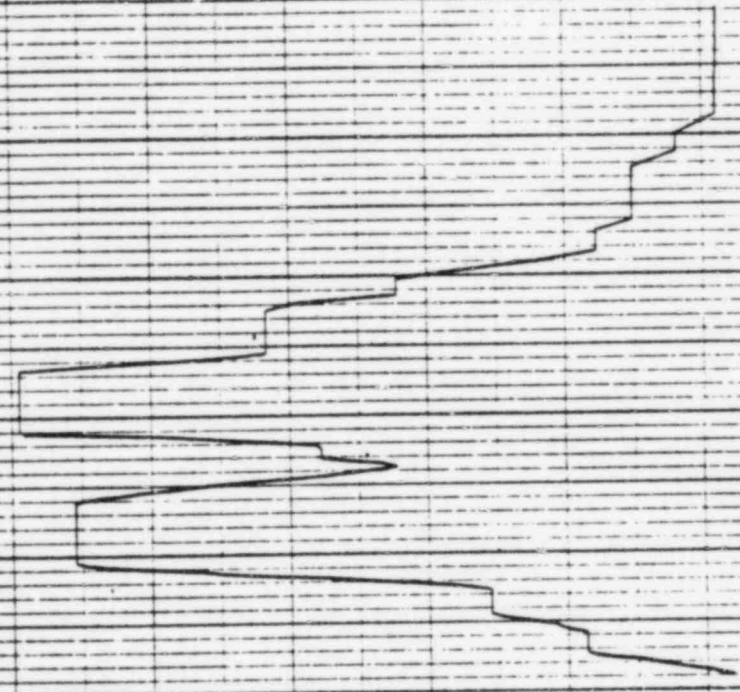
7 MAR 1988

REF 114

SRV
PSPECTRA VER DA LEV DB
GULF STATES UTILITIES-RBS UNIT 1-CALCIC221D-NM13-SDE-1983 REV113
RBS OF REC-REACTOR BLDG..EL-139-DD, MASS-12 SEIS MODEL-STEEL CONT
PEAK SPREAD +/-15Z
DISK CURVE SET NO.11
HOR DIRECTION
DAMPING VALUE = D.D2D

ACCELERATION G

FREQUENCY IN HZ



REF 114

7 MAR 1988

DAMPING VALUE = 0.020

SRV

PERECTRA VER D1 LEV DB

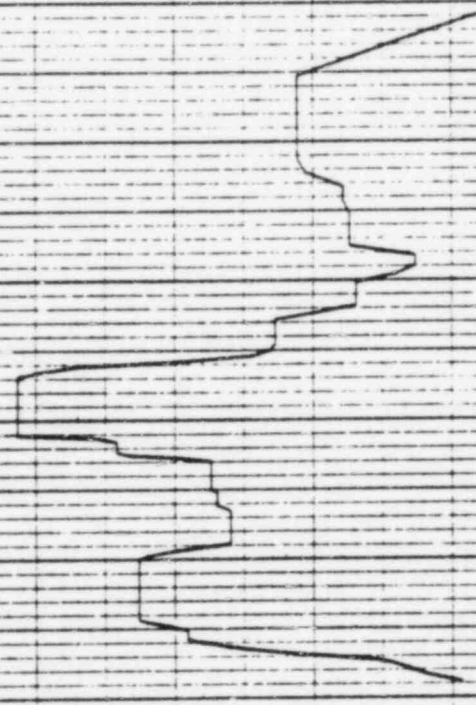
HALF STATES UTILITIES-RB5 UNIT 1-CALC1221D-NM1C7-5DE-1983 REV11)
RRS OF ACC-REACTOR BLDG.-FL-193.00,MA655-12 SEIS MODEL-STEEL CONT
PEAK SPREAD ±15%

VER DIRECTION

DISK CURVE SET NO.11

ACCELERATION -G

FREQUENCY IN HZ



7 MAR 1985

PERPECTRA VER 01 LEV 08
DULF STATES UTILITIES-RB6 UNIT 1-CALC1221D-MMICJ-5DE-1903 REV11J
RMS OF ACC.-REACTOR BLDG.-EL-152.00. MASS-13 SE15 MODEL-STEEL CONT
PERK SPREAD 1-15Z
DISEK CURVE SET NO.12

DAMPING VALUE = 0.020

HOR DIRECTION

ACCELERATION G
2.80 2.40 2.00 1.60 1.20 0.80 0.40 0.00

FREQUENCY IN HZ
10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10²



REF 115

PSPECTRA VER 01 LEV DB

CALF STATES UTILITIES-RBS UNIT 1-CALC12210-NM(C)-SDE-1909 REV113
RBS OF RCC-REACTOR BLDG.-EL-162-DD, MASS-19 SEIS MODEL-STEEL CONT
PERK SPREAD +/-15Z

DISK CURVE SET NO.12

VER DIRECTION

7 MAR 1983

11/11/74

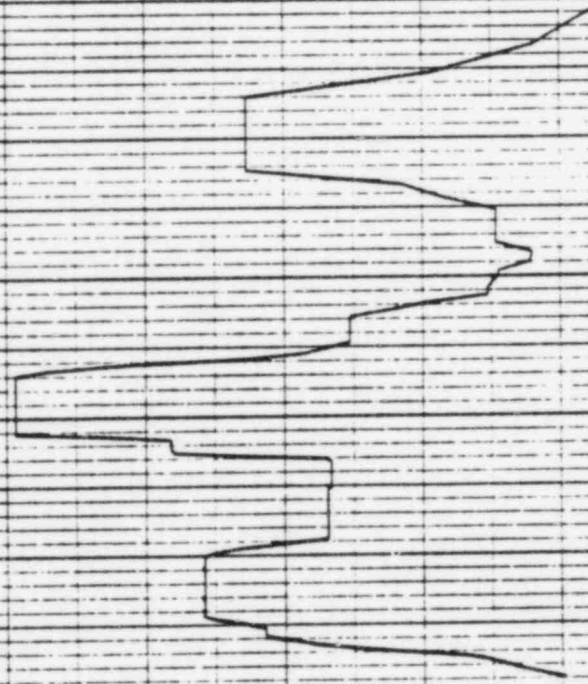
DAMPING VALUE = 0.020

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² 2 3 4 5 6 7 8 9 10³

FREQUENCY IN HZ

REF 115



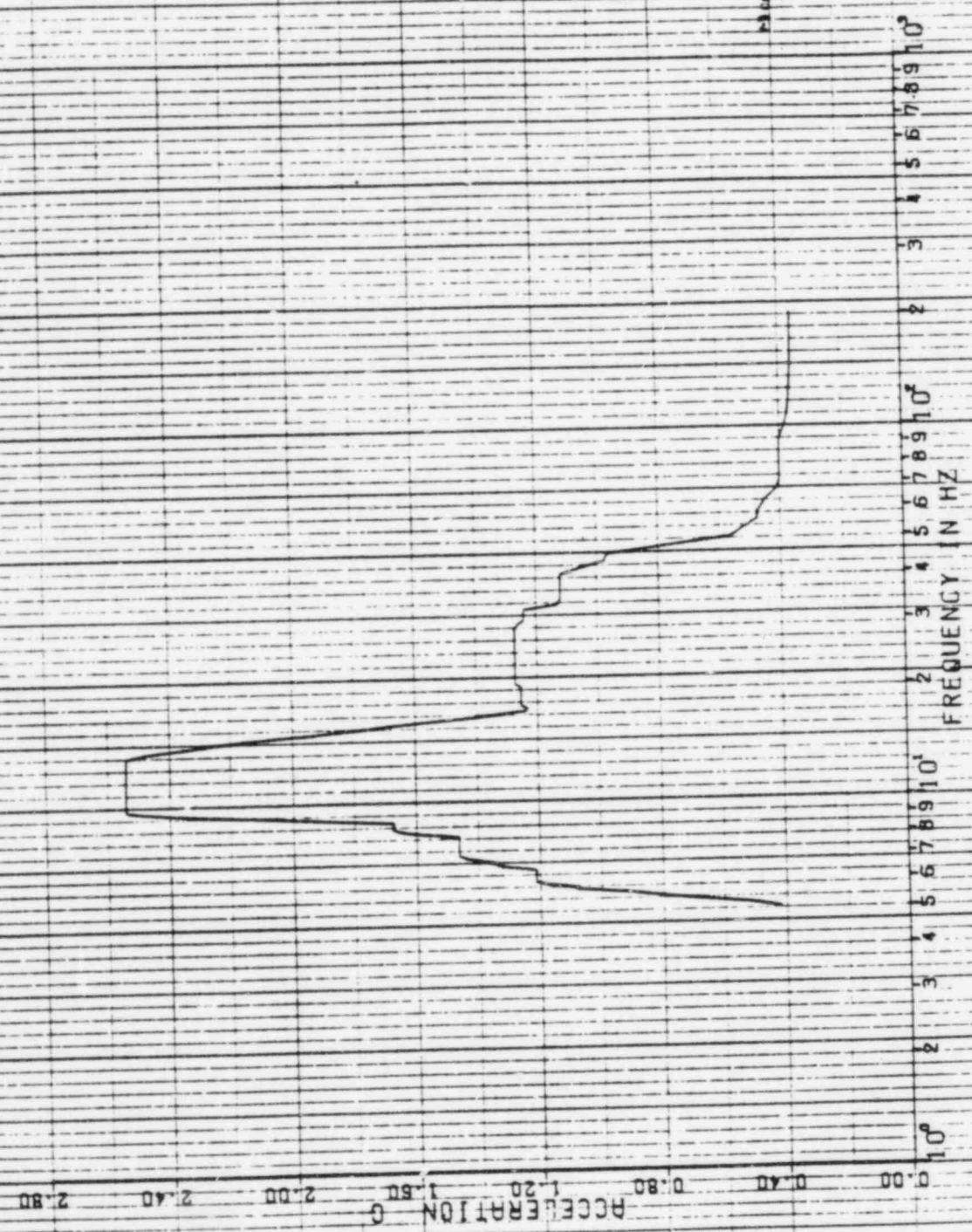
11667

7 MAR 1983

DAMPING VALUE = 0.020

REF 116

SRV
PSPECTRA VER ON LEV DB
GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NHIC1-5DE-1903 REV113
RRS OF ACC-REACTOR BLDG-EL-185-DD-MAS6-14 5E15 MODEL-STEEL CONI
PEAK SPREAD +/-15Z
DISK CURVE SET NO.13
HOR DIRECTION



REF 116

10/1/84

7 MAR 1983

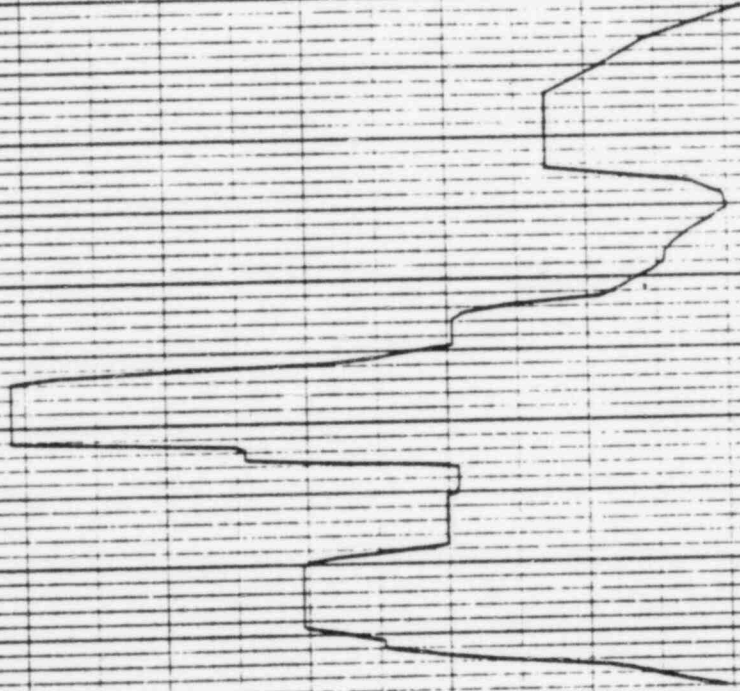
PSPECTRA VER DI LEV DB
 GULF STATES UTILITY RBS UNIT 1-CALCIP210-MM C7-5DE-19D9 REV11D
 ARS OF ACC-REACTOR BLOC-EL-186.00 MASS-11/SE16 MODEL-STEEL CONT
 PEAK SPREAD *-15Z

DISK CURVE SET NO.13

VER DIRECTION

DAMPING VALUE = 0.020

ACCELERATION -G
 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40



FREQUENCY IN HZ
 10^0 2 3 4 5 6 7 8 9 10^1
 2 3 4 5 6 7 8 9 10^2
 2 3 4 5 6 7 8 9 10^3

7 MAR 1988

SRV

PSPECTRA VER D1 LEV DB
DAF STATES UTILITIES-RB5 UNIT 1-CALC12210-NM17-SQE-1903 REV111
RRS OF ACC.-REACTOR BLDG.-EL-212-DD-MH55-15 SEIS MODEL-STEEL CONT
PEAK SPREAD +/-15Z
DISK CURVE SET NO.14

DAMPING VALUE = 0.020

HOR DIRECTION

ACCELERATION 0 0.80 1.60 2.40 2.80

FREQUENCY IN HZ 10 2 3 4 5 6 7 8 9 10

REF 117



REF 117

7 MAR 1983

SRV

PSPECTRA VER DB LEV DB

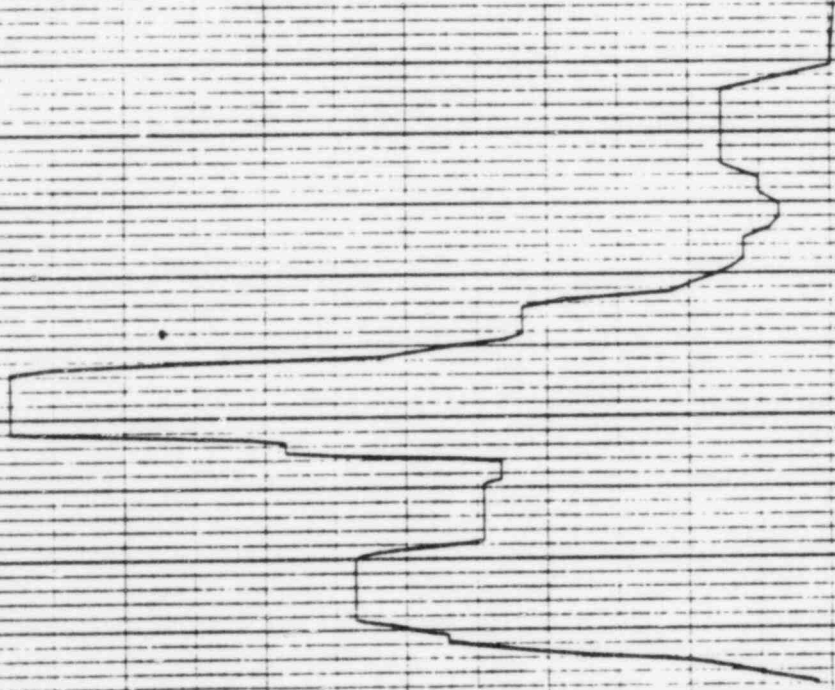
GULF STATES UTILITIES-RBS UNIT 1-CALC1221D-NMICH-5DE-1809 REV11)
 RRS OF ACC.-REACTOR 5LOG..EL-212.00.MASS-15 SEIS MODEL-STEEL CONT
 PEAK SPREAD +-15Z

DISK CURVE SET NO.14

VER DIRECTION

DAMPING VALUE = 0.020

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40



10 2 3 4 5 6 7 8 9 10
 FREQUENCY IN HZ

REF 119

7 MAR 1983

SRV

PSPECTRA VER 01, LEV 08

GULF STATES UTILITIES-RBS UNIT 1-CALCIP210-NMCIJ-5DE-1903 REV11J
RBS OF REC-REACTOR BLDG.. EL-239.20, MASS-16 5E16 MODEL-61EEL CONT
PEAK SPREAD: 1-15Z

DAMPING VALUE = 0.020

HDR DIRECTION

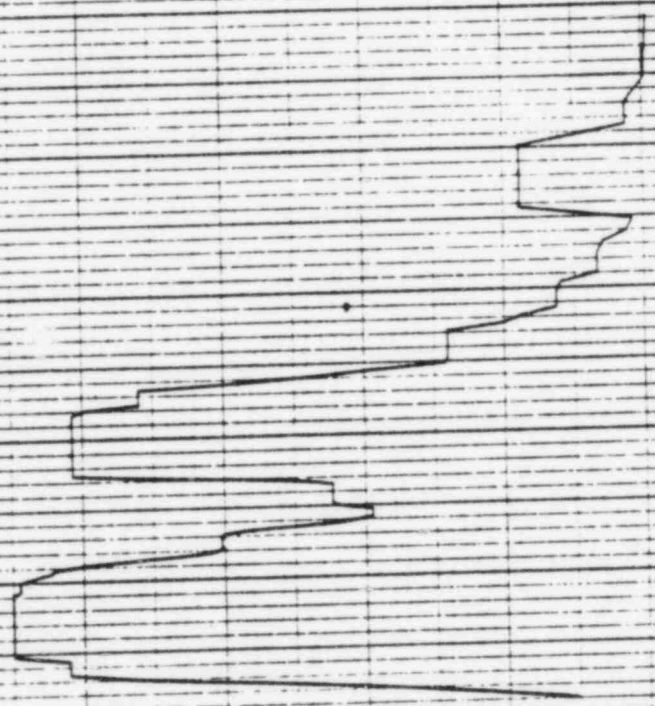
DISK CURVE SET NO.15

ACCELERATION G

10⁰

2 3 4 5 6 7 8 9 10¹

FREQUENCY IN HZ

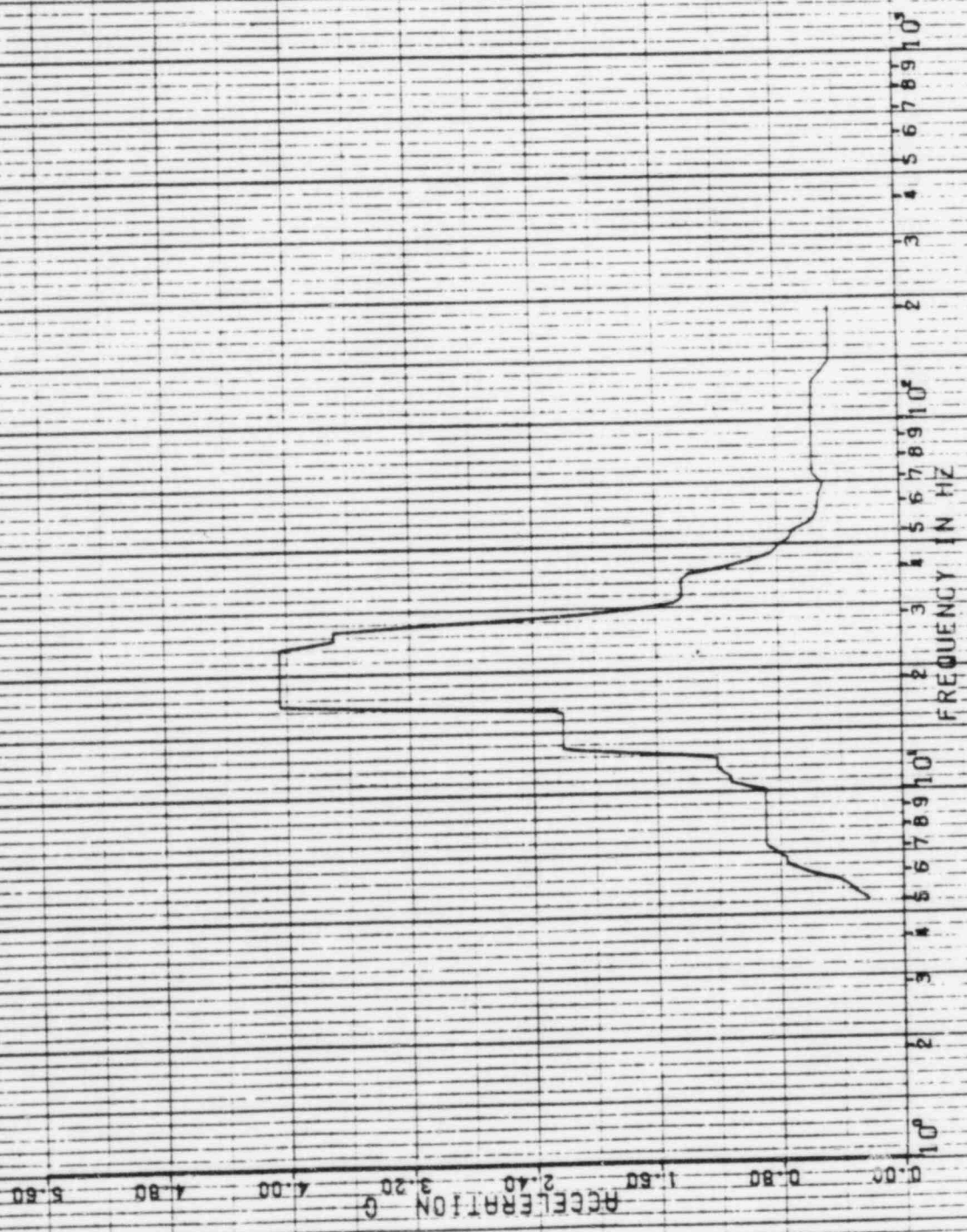


REF 118

7 MAR 1985

SRV
PSPCTRR VER ON LEV DB
DULF STATES UTILITIES-RBS UNIT 1-CALC1221D-NM1C1-5DE-1903 REV117
RRS OF ACC.-REACTOR BLDG.-EL-29B-2D.MR55-15 SE16 MODEL-STEEL CONT
PEAK SPREAD $\pm 15\%$
DISK CURVE SET NO.15
VER DIRECTION

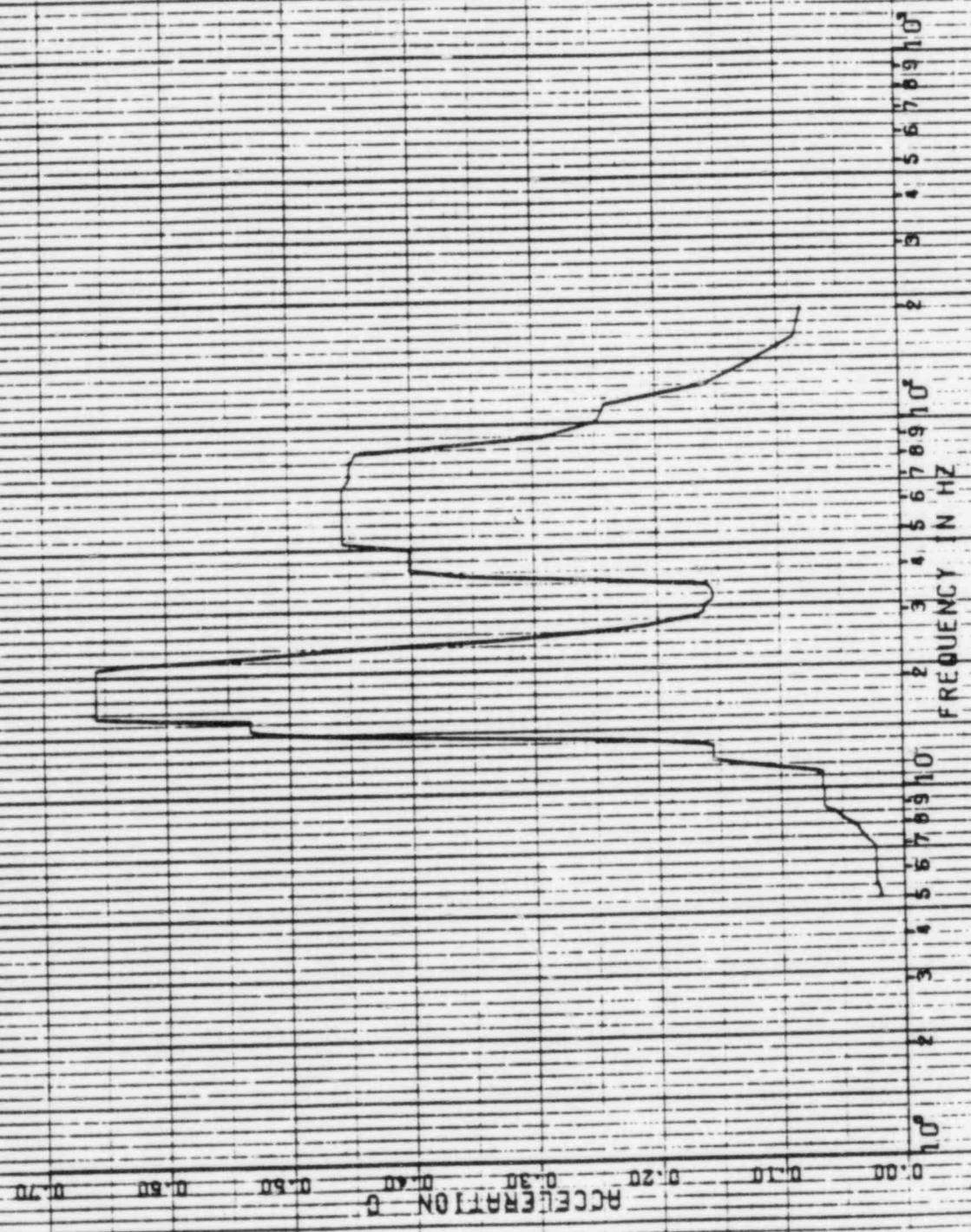
DAMPING VALUE = 0.020



REF 119

7 MAR 1983 11234

PSPECTRA VER DB LEV DB
 GULF STATES UTILITIES-RBS UNIT 1-CALCULATED-NM17-5DE-1803-REV17
 RRS OF ACC.-REACTOR BLDG..EL-85.000..MSS-17 SETS MODEL-PSM.PEDESTAL
 PEAK SPREAD 2-15Z
 DISK CURVE SET NO.16
 SRV
 DRAINING VALUE = 0.020
 MDK DIRECTION



4-1-1A

7 MAR 1983

PSPECTRA VER DN LEV DB
GULF STATES UTILITY RB5 UNIT 1-CHL12210-MAICJ-SDE-1903 REV113
RMS OF ACC. REACTION BLDG. EL-85-000, MASS-17 SE16 MODEL-PSM-PEDESTAL
PEAK SPREAD: 1-15Z
DISK CURVE SET NO.16

DAMPING VALUE = 0.020

VER DIRECTION

0.56

0.48

0.40

0.32

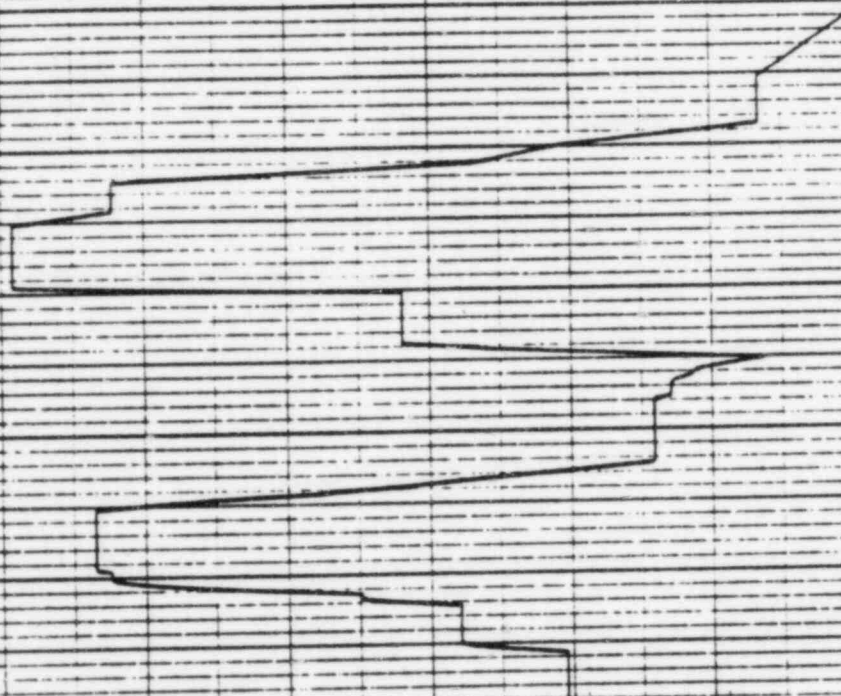
0.24

0.16

0.08

0.00

ACCELERATION



10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸ 10⁹ 10¹⁰

FREQUENCY IN HZ

REF 119

REF 120

7 MAR 1983

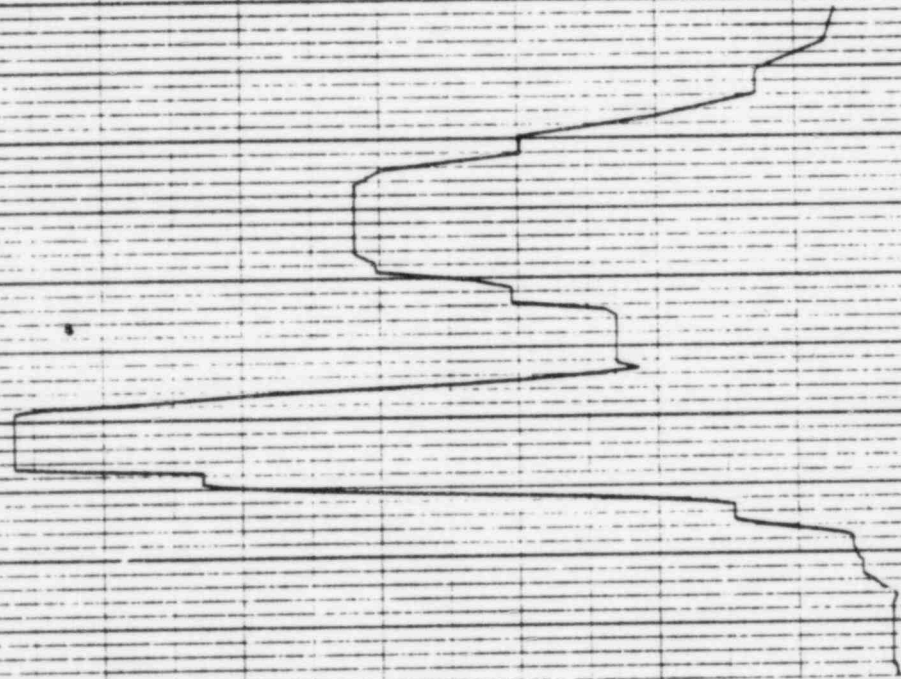
PSPECTRA VER 01 LEV 02
 DULF STATES UTILITIES-RBS UNIT 1-CALC12210-NM1C1-5DE-1809 REV11D
 RRS OF ACC--REACTOR BLDG--EL=101.00, MASS=18 5E16 MODEL-PSW-PEDESTAL
 PEAK SPREAD +/-15Z
 DISK CURVE SET NO.17

DAMPING VALUE = 0.020

HOR DIRECTION

ACCELERATION 0 0.10 0.20 0.30 0.40 0.50 0.60 0.70

FREQUENCY IN HZ
 10⁰ 2 3 4 5 6 7 8 9 10¹



7 MAR 1983

SRV

PSPECTRA VER D1 LEV DB
DULF STATES UTILITIES-RBS UNIT 1-CALC1221D-NM1C1-5DE-1809 REV111
RKS OF ACC.-REACTOR BLDG.-EL-101-PO-MASS-EL 5E15 MODEL-PSM-PEDESTAL
PERK SPREAD 3-15Z
DISK CURVE SE-ND-17

DAMPING VALUE = 0.020

VER. DIRECTION

ACCELERATION 0 0.08 0.16 0.24 0.32 0.40 0.48 0.56



FREQUENCY IN HZ 10^0 10^1 10^2 10^3

REF 120

REF 121

4721A

7 MAR 1981

SRV

PEPECTRA VER D1 LEV DB

CULF STATES UTILITIES-RBS UNIT 1-CALCIC2210-NM17-SDE-1909 REV111
RBS OF ACC.-REACTOR BLDG.-EL-117.00, MASS-19 SEIS MODEL-PSM
PEAK SPREAD 9-15Z

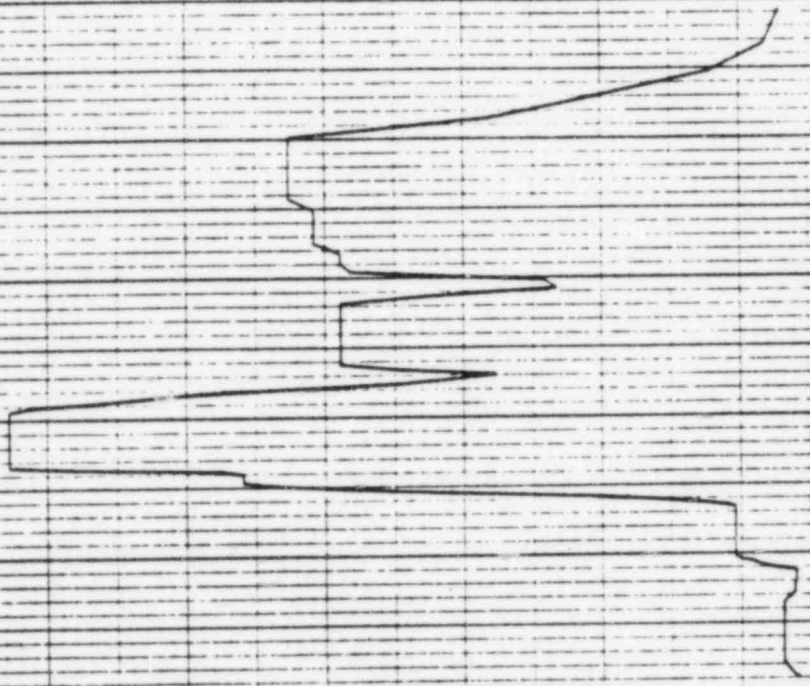
DISK CURVE SET NO.1B

MDR DIRECTION

DAMPING VALUE = 0.020

ACCELERATION 0 0.08 0.16 0.24 0.32 0.40 0.48 0.56

10⁰ 2 3 4 5 6 7 8 9 10¹
FREQUENCY IN HZ



11774

7 MAR 1983

PERPECTRA VER DI LEV DB
GULF STATES UTILITIES-RB6 UNIT 1-CALC12210-WHIC7-60E-1903 REV11J
RKS OF ACC. REACTOR BLDG..ELE117.DD,MRSS=18 5E16,MODEL-PSM
PEAK SPREAD +/-15Z
DISK CURVE SET NO.1B

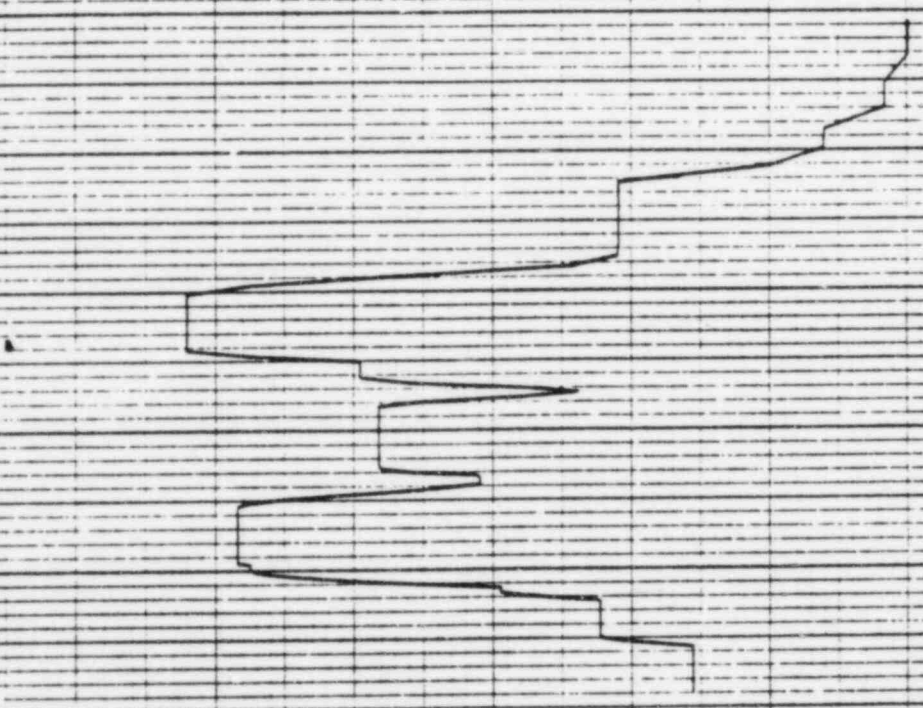
DAMPING VALUE = 0.020

VER DIRECTION

ACCELERATION 0 0.10 0.20 0.30 0.40 0.50 0.60 0.70

10⁰ 2 3 4 5 6 7 8 9 10¹
FREQUENCY IN HZ

REF 121



11/14

7 MAR 1985

PERCECRR VER D1 LEV 08
 DULF STATES UTILITIES-RB6 UNIT 1-CR1C1221D-MN1C3-5DE-1905 REV113
 RRS OF ACC.-REACTOR BLDG.-EL-189.00-MASS-20 SEIS MODEL-PSW
 PEAK SPREAD +-15Z
 DISK CURVE SET NO.18
 HDR DIRECTION
 DRAMPING VALUE = 0.020

ACCELERATION - G

FREQUENCY IN HZ

0.00 0.08 0.16 0.24 0.32 0.40 0.48 0.56

10⁰

2

3

4

5

6

7

8

9

10¹

2

3

4

5

6

7

8

9

10²

11/24/83

7 MAR 1983

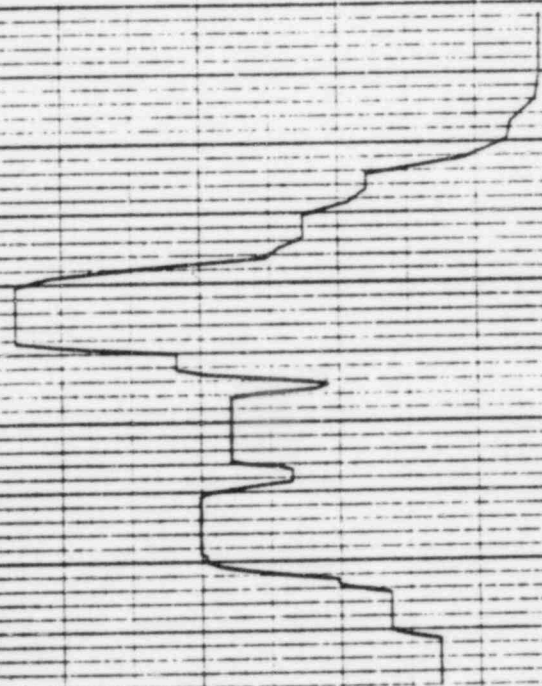
PSPECTRA VER DB LEV DB SRV
DULF STAYES UTILITIES-RBS UNIT 1-CALC12210-NH(C)-SDE-1903 REV11)
RMS OF ACC.-REACTOR BLDG..EL=199.00, HASE=20 SEIS MODEL-PSM
PEAK 52 READ *-152
DISK CURVE SET NO.19
VER DIRECTION

DAMPING VALUE = 0.020

ACCELERATION -g

1.40 1.20 1.00 0.80 0.60 0.40 0.20 0.00

FREQUENCY IN HZ

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10²

01244

7 MAR 1985

SRV

PSPECTRA VER 01 LEV 08

DULF STATES UTILITIES-RB6 UNIT 1-CALC12210-NM1C3-SDE-1983 REV113
 RRS OF ACC.-REACTOR BLDG.-EL-147.00.MA655.21 SE16 MODEL-PSM
 PEAK SPREAD 4-15Z

DISK CURVE SET NO.20

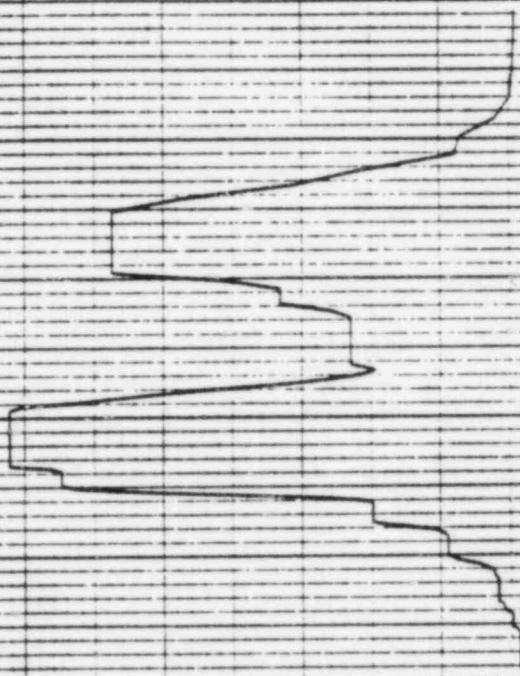
HDR DIRECTION

DAMPING VALUE = 0.020

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² 2 3 4 5 6 7 8 9 10³

FREQUENCY IN HZ



REF 123

7 MAR 1983

SRV

LEV DB

PSPECTRA VER ON

GULF STATES UTILITIES-RBS UNIT 1-CALCIP210-NM1C1-502-1903-REV113
RRS OF ACC.-REACTOR BLDG.-EL=147.00, MAG55=21 5215, MODEL-PSM
PEAK SPREAD +/- 15%

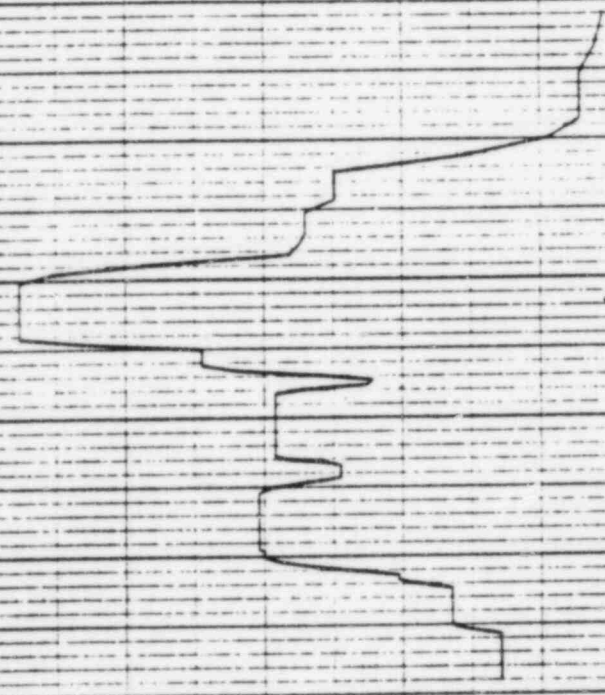
DISK CURVE SET NO.20

VER DIRECTION

DAMPING VALUE = 0.020

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 3 4 5 6 7 8 9 10¹
FREQUENCY IN HZ

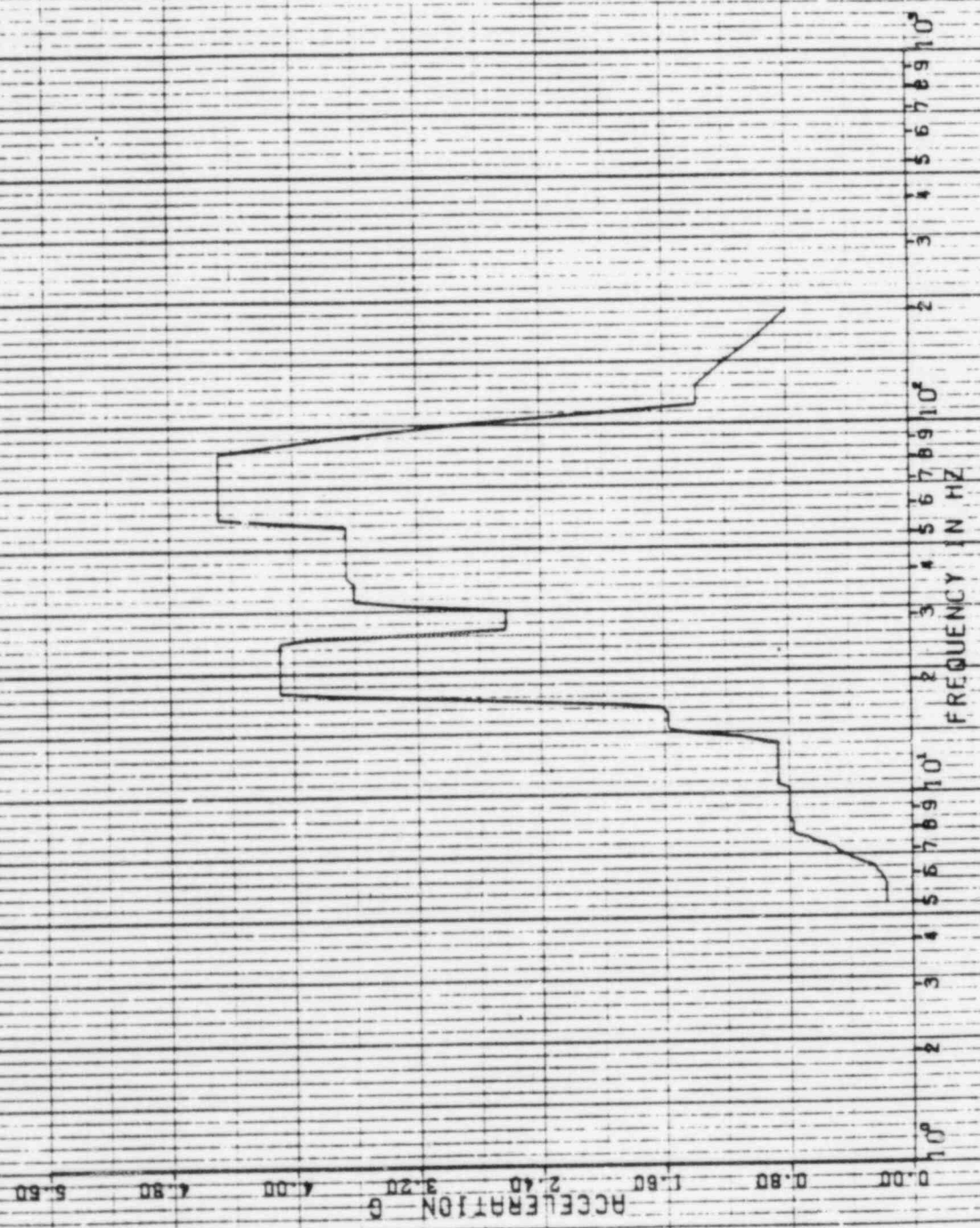


REF 124

105-14

7 MAR 1985

PSPECTRA VER 01 LEV 08
GULF STATES UTILITIES-RBS UNIT 1-CALCIR210-MMICJ-SDE-1903 REV11D
RRS OF ACC.-REPELDR BLDG.-EL-86-000-MR55-22 SENS MODEL-DRYWELL
PEAK SPREAD 3-15Z
DISK CURVE SET NO.21
SW
HOR DIRECTION
DAMPING VALUE = 0.020



REF 124

11/27/11

7 MAR 1983

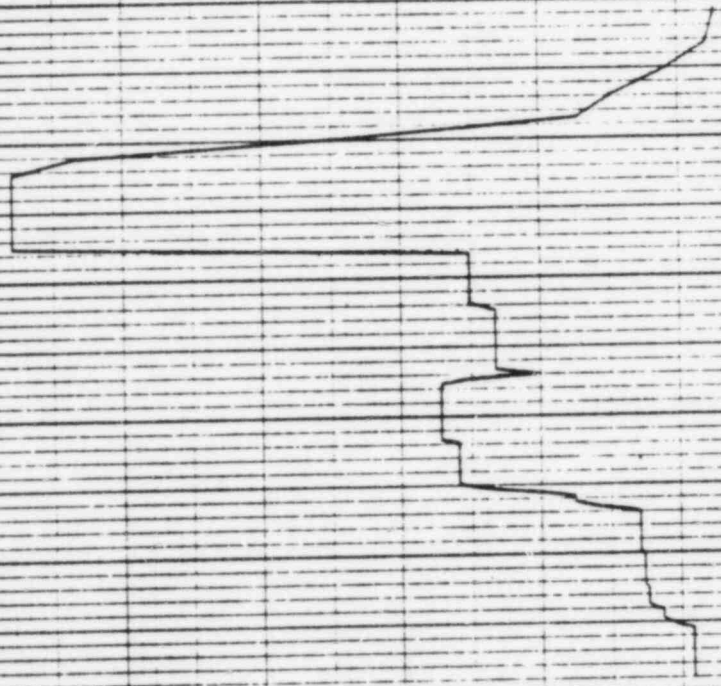
PSPECTRA VER DB LEV DB
 GULF STATES UTILITIES-RB6 UNIT 1-CALC12210-MICD-SDE-1903 REV113
 RMS OF ACC--REACTOR BLDG--EL=95.000, MASS=22.5E15 MODEL-DRYWELL
 PERK SPREAD *-15Z
 DISK CURVE SET NO.21

DAMPING VALUE = 0.020

VER DIRECTION

ACCELERATION G

FREQUENCY IN HZ



REF 125

7 MAR 1983

SRV

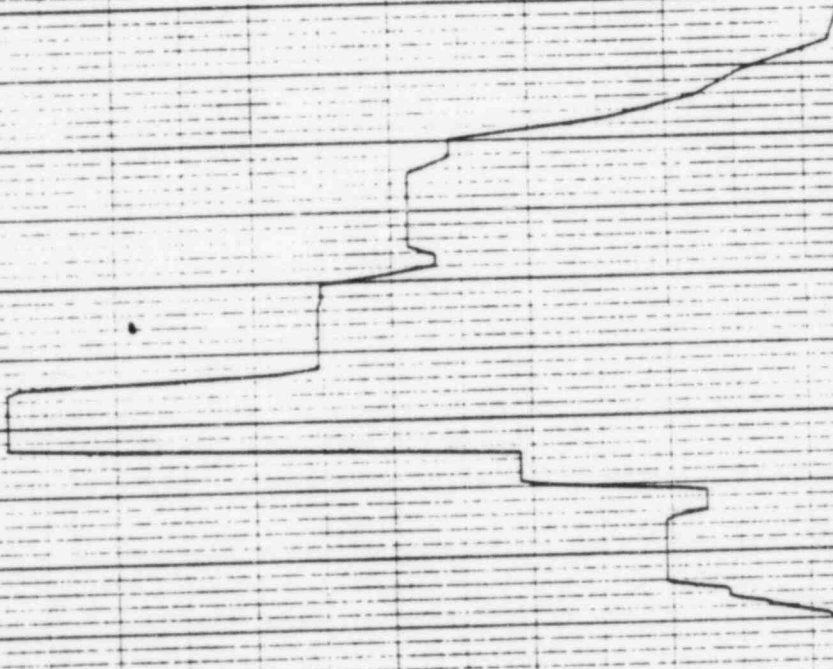
PEPECTRA VER 03 LEV 08
 DULF STATES UTILITIES-RBS UNIT 1-CALC12210-MMCI-5DE-1903 REV11
 MRS OF ACC.-REACTOR BLOC..EL=114.00.MASS=23 SEIS MODEL-DRYWELL
 PEAK SPREAD +/-15%
 DISK CURVE SET NO.22

HOR DIRECTION

DAMPING VALUE = 0.020

ACCELERATION 0 0.50 1.00 1.50 2.00 2.50 3.00 3.50

FREQUENCY IN HZ
 10⁰ 2 3 4 5 6 7 8 9 10¹



PSPECTRA VER 03 LEV 08

GULF STATES UTILITIES-RDS UNIT 1-CALC1221D-NM1C7-5QE-1903 REV111
RRS OF REC.-REACTOR BLDG.-EL-114.00, MASS-23 SE15, MODEL-DRYWELL
PERK SPREAD +-15Z

DISK CURVE SET NO.22

VER DIRECTION

DAMPING VALUE = 0.020

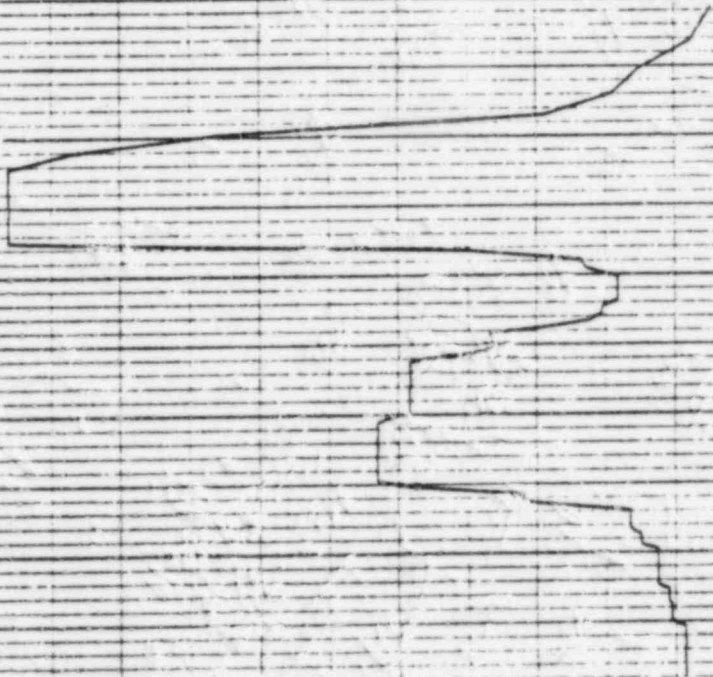
7 MAR 1983

115.4

REF 125

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

FREQUENCY IN HZ 2 3 4 5 6 7 8 9 10



REF 126

11/11/74

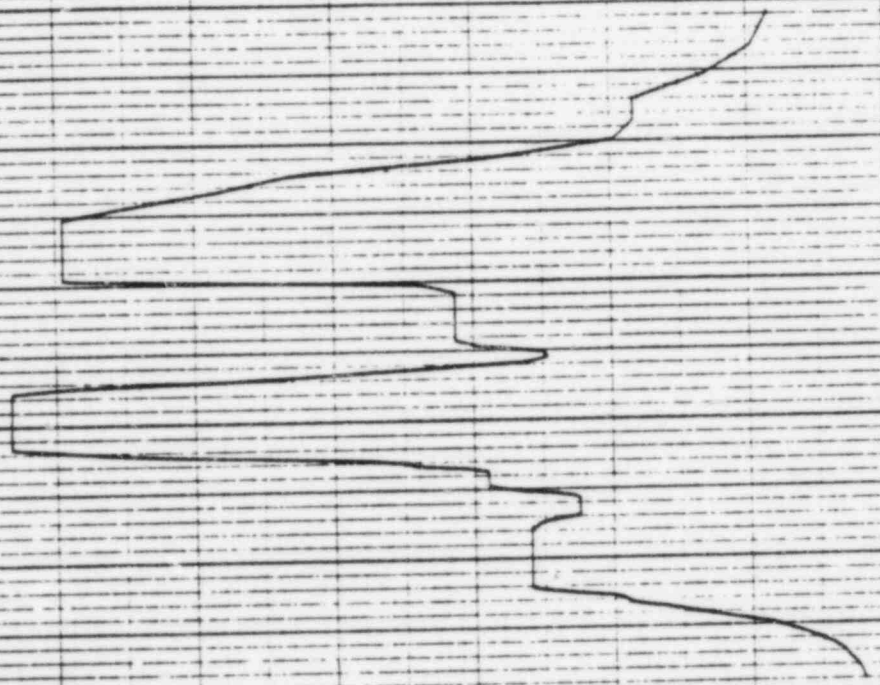
7 MAR 1983

SRV
PEPECT'9A VER D3 LEV DB
DULF STATES UTILITIES-RB6 UNIT 1-CALC12210-NM1CJ-SDE-1983 REV113
KRS OF ACC.-REACTOR BLDG. EL-193.00, MRS5-24 5E16 MODEL-DRYWELL
PEAK SPREAD ±15Z
DISK CURVE SET NO.23
HOR DIRECTION

DAMPING VALUE = 0.020

ACCELERATION G

FREQUENCY IN HZ



PSPECTRA VER D1 LEV DB
 DALL STATES UTILITIES-RBS UNIT 1-CALC12210-NMCI1-5DE-18DS REV11
 RRS OF ACC.-REACTOR BLDG.-EL-189.00.MASS=24 SE15 MODEL-DRYWELL
 PERK SPREAR. 4-15Z
 DISK CURVE SET NO.23

SRV
 VER DIRECTION

7 MAR 1985

DAMPING VALUE = 0.020

REF 126

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰

3

4

5

6

7

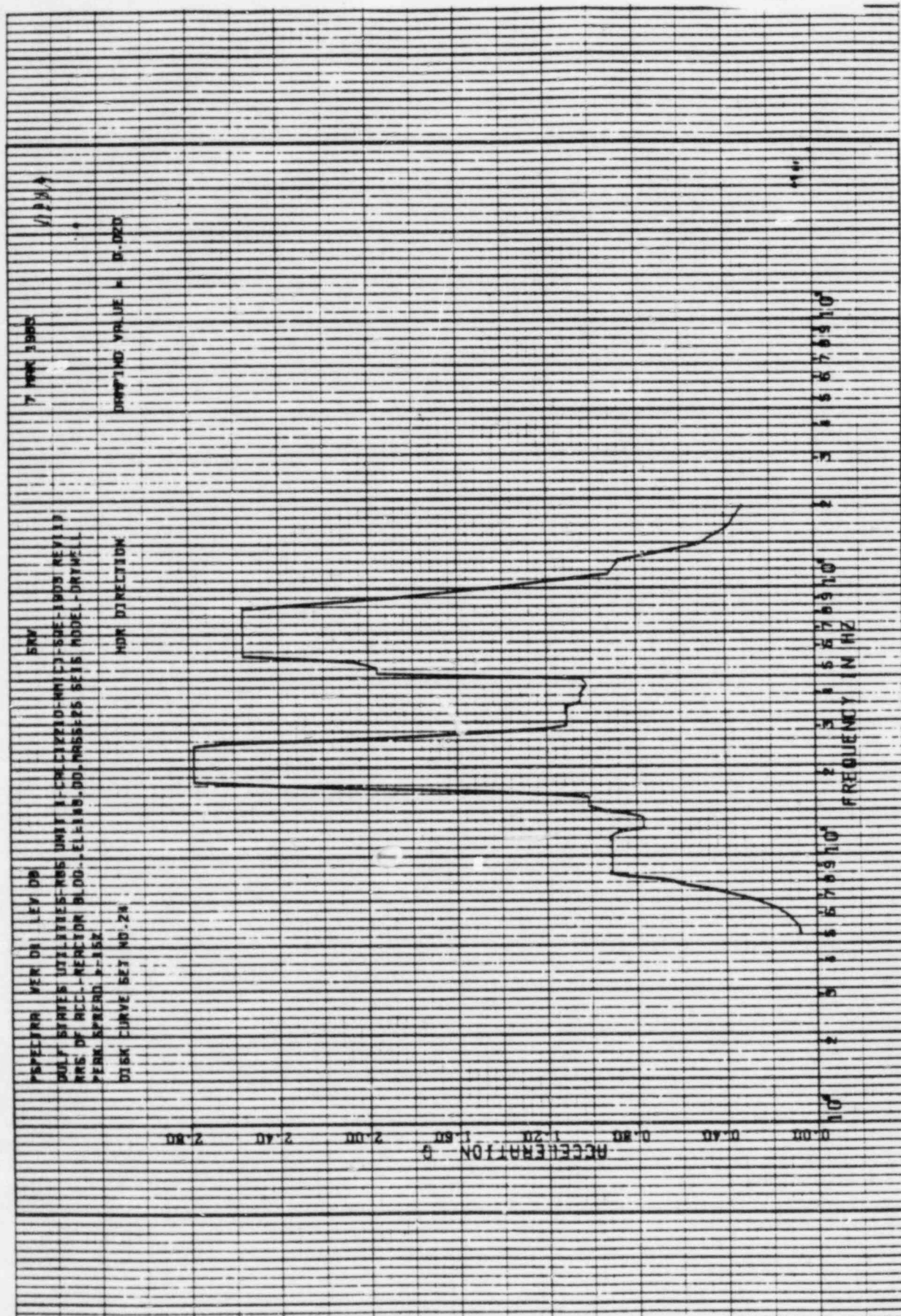
8

9

10

FREQUENCY IN HZ
 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶ 10⁷ 10⁸ 10⁹ 10¹⁰





REF 127

7 MAR 1988

SRV

PERFECTIN VER DB LEV DB

GULF STATES UTILITIES-RBS UNIT 11-CL-CLIPID-MNCT-50E-100V REV 11

WRS OF REC-MERITOR BLDG-EL-11-B-DOL-MASS-25 SEAS MODEL-DRYWELL

PEAK SPREAD 0.15Z

VER DIRECTION

DAMPING VALUE = 0.020

DISK CURVE SET NO. 24

ACCELERATION

FREQUENCY IN HZ

7 MAR 1989

DE
LO

COMPANY VALUE = D-D2D

W
R
E
J
E
D
E
A

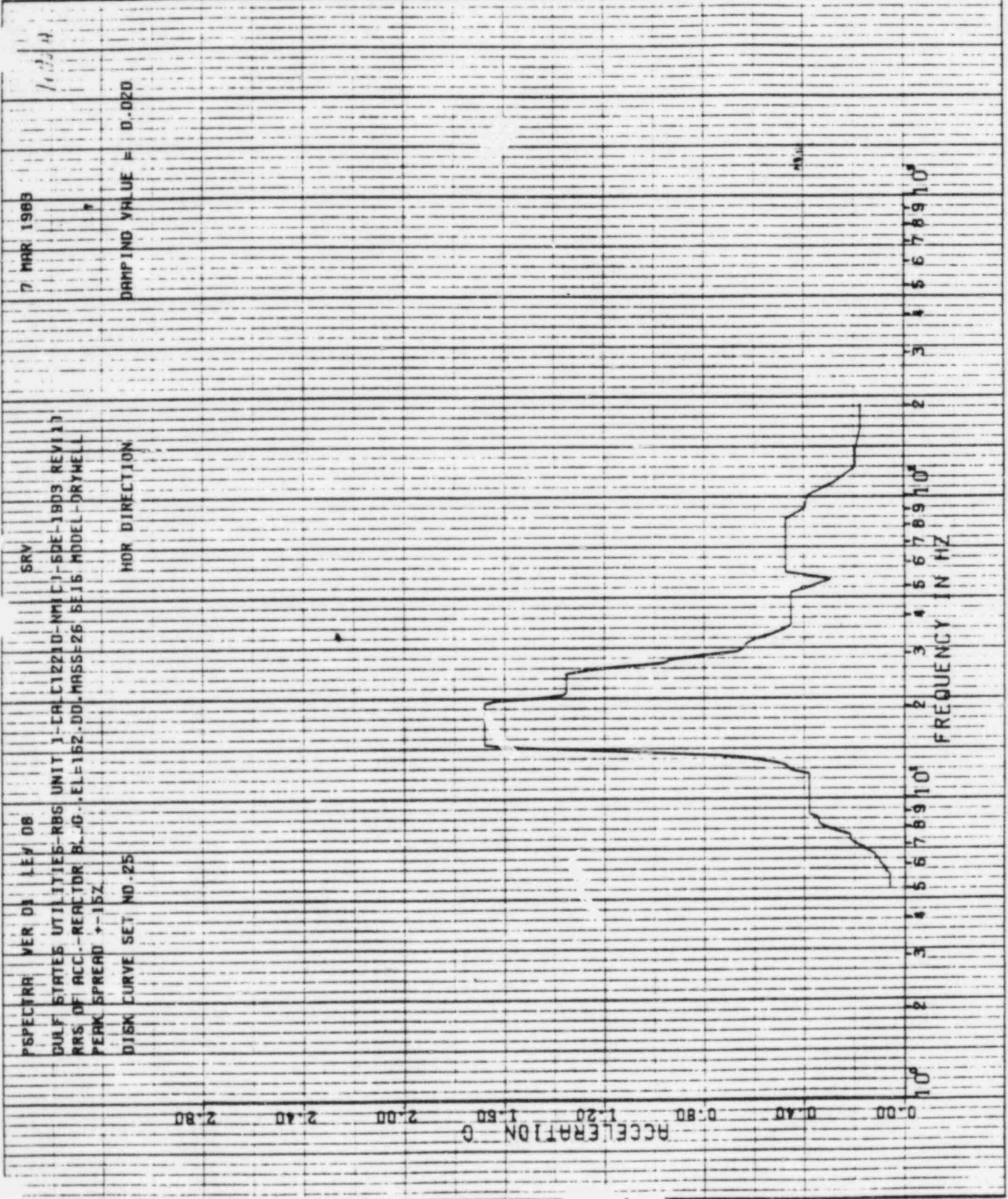
DISK CURVE SET MD-24

ACCESSION NO. 1.20 1.20 1.20 1.20 1.20

10⁰ 2 3 4 5 6 7 8 9 10¹ FREQUENCY IN HZ

2 5 4 5 7
FREQUENCY IN HZ

KCF 128



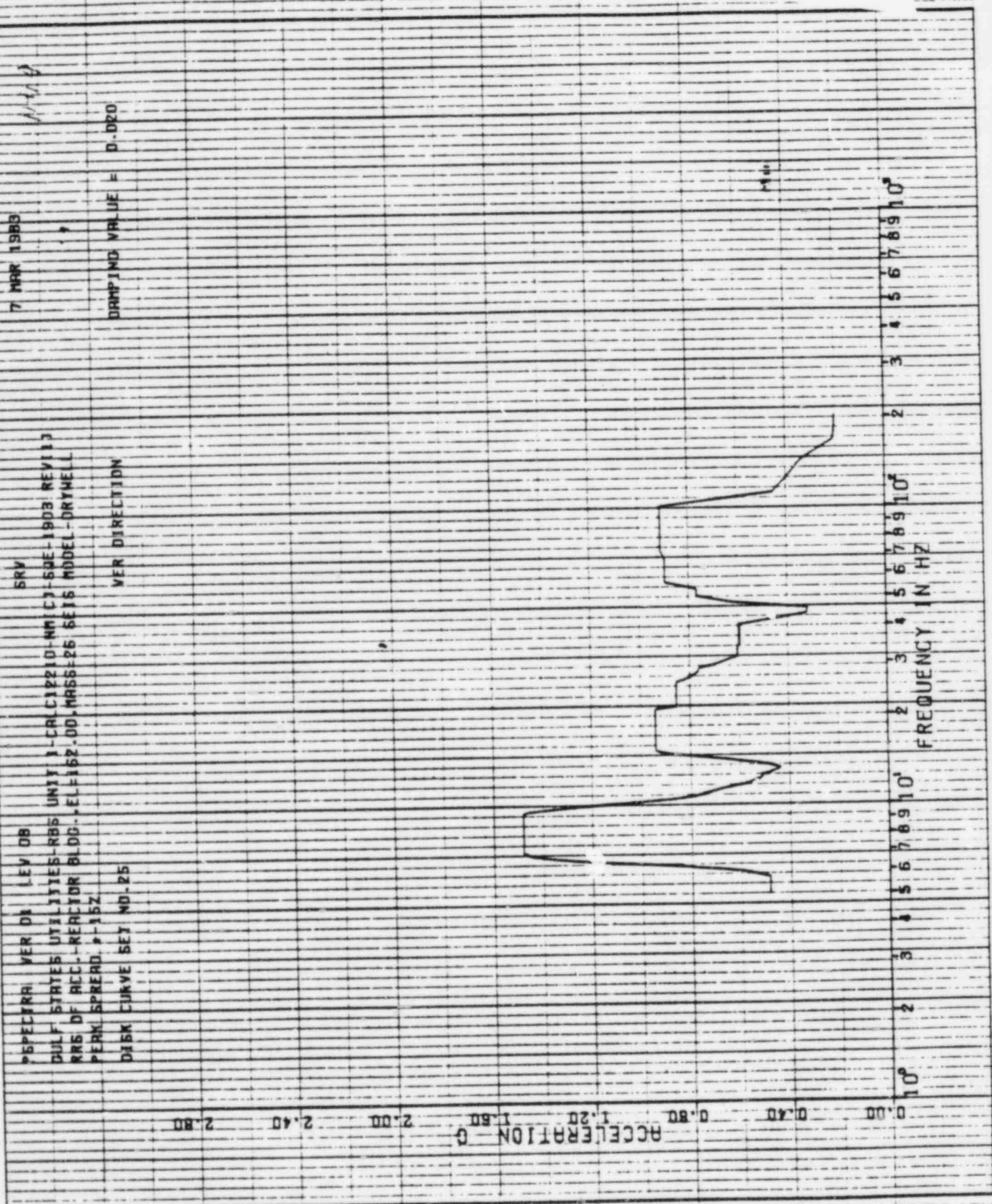
W-100

7 MAR 1983

SRV
VER 01 LEV 08
DULF STATES UTILITIES-RBS UNIV 1-CR122101-11113-SDE-1903 REV113
RMS OF ACC.-RECTOR BLOC..EL-162.00.MASS-26 SEIS MODEL-DRYWELL
PERK SPREAD. 1-15Z
DISK CURVE SET NO.25
VER DIRECTION

DAMPING VALUE = 0.020

REF 128



REF 129

11704

7 MAR 1985

SRV

PSPECTRA VER DB LEV DB

GULF STATES UTILITIES-RBF UNIT 1-CALC12210-NM1C7-SQE-1903 REV11J
RRS OF ACC.-REACTOR BLDG.-EL-185.00-MA55-27 SEIS MODEL-DRYWELL
PEAK SPREAD +/-15Z

DAMPING VALUE = 0.020

HOR DIRECTION

DISK CURVE SET NO.26

ACCELERATION

FREQUENCY IN HZ



1143A

7 MAR 1983

SRV

PSPECTRA VER DI LEV DB
 GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NMCI-SDE-1803 REV113
 RRS OF ACC.-REACTOR BLDG.-EL-185.00.MAS5-27 SE16 MODEL-DRYHILL
 PERK SPREAD +/-15Z

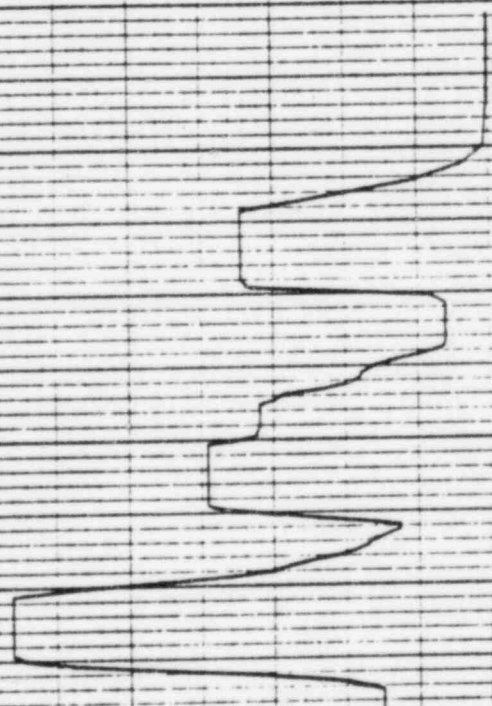
VER DIRECTION

DISK CURVE SET NO.25

DAMPING VALUE = 0.020

ACCELERATION -G
 0.00 0.40 0.80 1.20 1.60 2.00 2.40 2.80

FREQUENCY IN HZ
 10⁰ 2 3 4 5 6 7 8 9 10¹



114711

7 MAR 1983

PGSPECTRA VER. 01 LEV. 08
 DULF STATES UTILITIES-RB6 UNIT 1-CALC12210-NM1C1-5DE-1903 REV110
 PPS OF ACC.-REACTOR BLOD.-EL=119.46, MASS628 SE16 MODEL-RPV
 PEAK SPREAD 3-15Z
 DISK CURVE SET NO.28

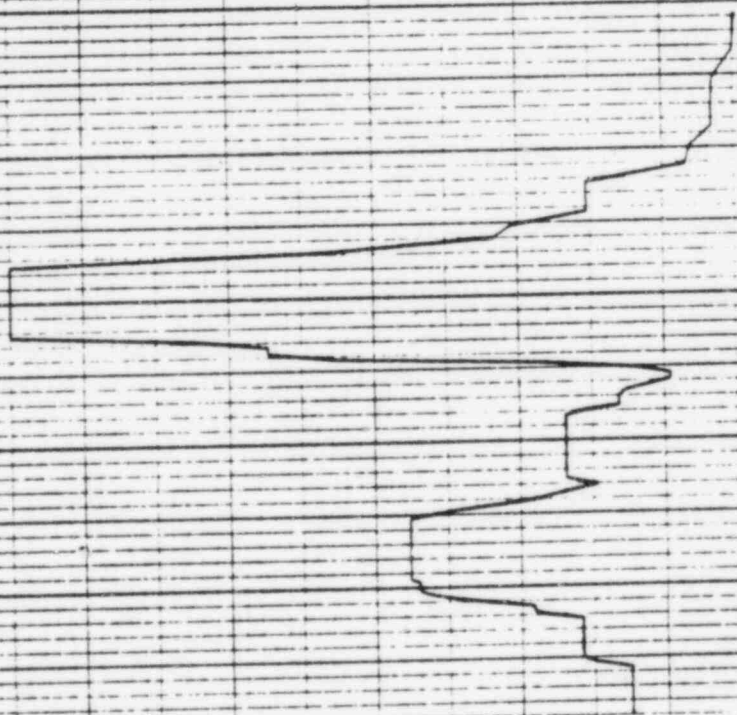
DAMPING VALUE = 0.020

VER. DIRECTION

ACCELERATION 0 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² 3 4 5 6 7 8 9 10³

FREQUENCY IN HZ



REF 130

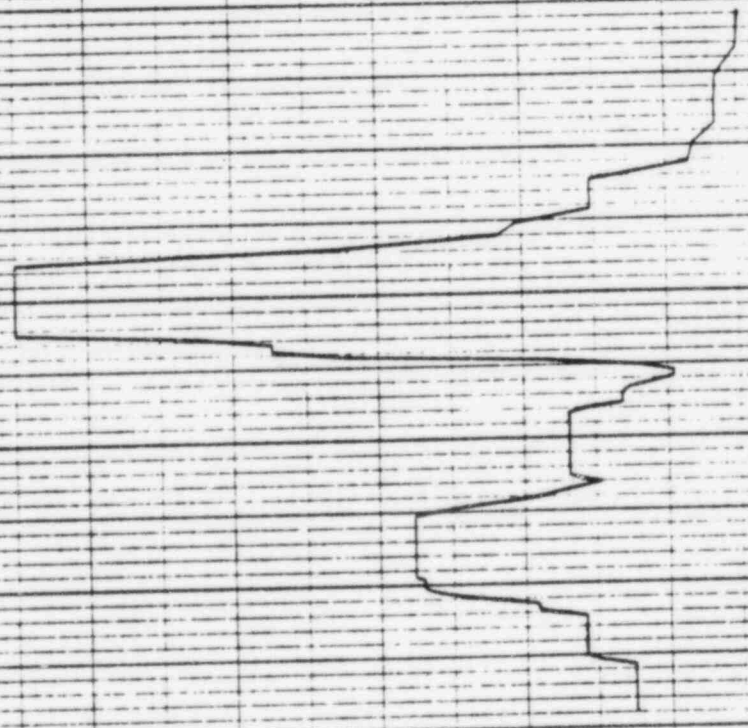
114 211

7 MAR 1983

PGSPECTRA VER D1 LEV DB
 DULF STATES UTILITIES-RB6 UNIT 1-CALC12210-MN1CJ1-50E-1903 REV11D
 MRS OF ACC-REACTOR BLDD-EL=113.46, MASS=29 SE16 MODEL-RPV
 PEAK SPREAD 3-15Z
 DISK CURVE SET NO.28
 VER DIRECTION
 DAMPING VALUE = 0.020

ACCELERATION G
 0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

FREQUENCY IN HZ
 10⁰ 2 3 4 5 6 7 8 9 10¹

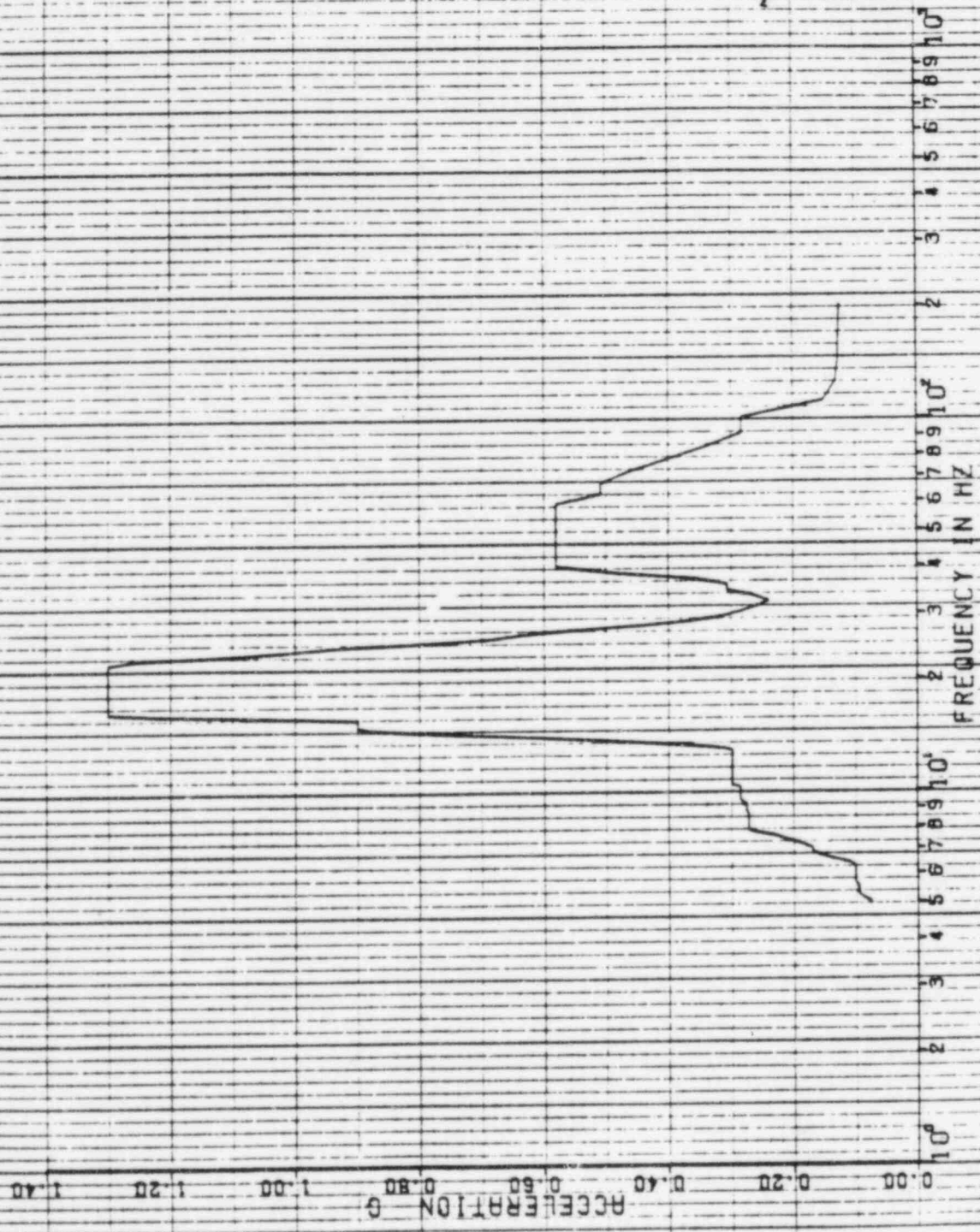


1477

7 MAR 1983

DAMPING VALUE = 0.020

PSPECTRA VER 01 LEV 08
 GULF STATES UTILITIES-RB5 UNIT 1-CALC12210-NM1C1-5DE-1903 REV113
 RRS OF ACC.-REACTOR BLDG.-EL-162.57, MRS5-3D SE15 MODEL-RPV
 PEAK SPREAD +/-15%
 DISK CURVE SET NO.29
 HOR DIRECTION



PSPECTRA VER DI LEV DB

GULF STATES UTILITIES-RBS UNIT 1-CALC1221D-MHICD-SQE-1903 REV111
RRS OF ACC.-REACTOR BLDG.-EL-162.57, MRRF-30 SEIS MODEL-RPV
PERK SPREAD 2-15Z

DISK CURVE SET NO.29

VER DIRECTION

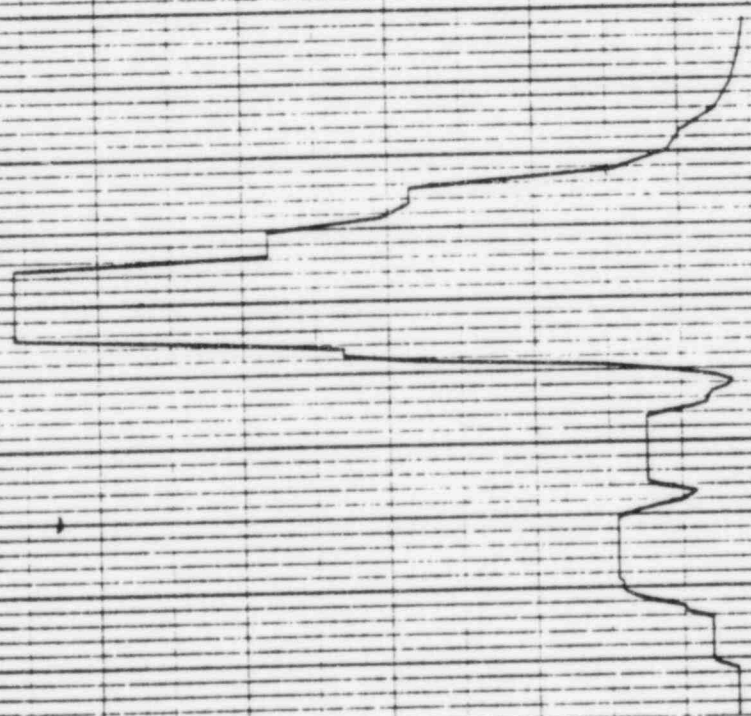
DAMPING VALUE = 0.020

7 MAR 1983

REF 131

ACCELERATION 0 0.40 0.80 1.20 1.60 2.00 2.40 2.80

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² 2 3 4 5 6 7 8 9 10³
FREQUENCY IN HZ



PSPECTRA VER D0 LEV DB

GULF STATES UTILITIES-RBS UNIT 1-CALC1221D-NM1C1-50E-1803 REV111
RBS OF ACC.-REACTOR BLDG..EL=117.63,MRSS=91+92 SEIS MODEL-RPV1INTD
PEAK SPREAD +/-15Z

DISK CURVE SET NO.30

SRV

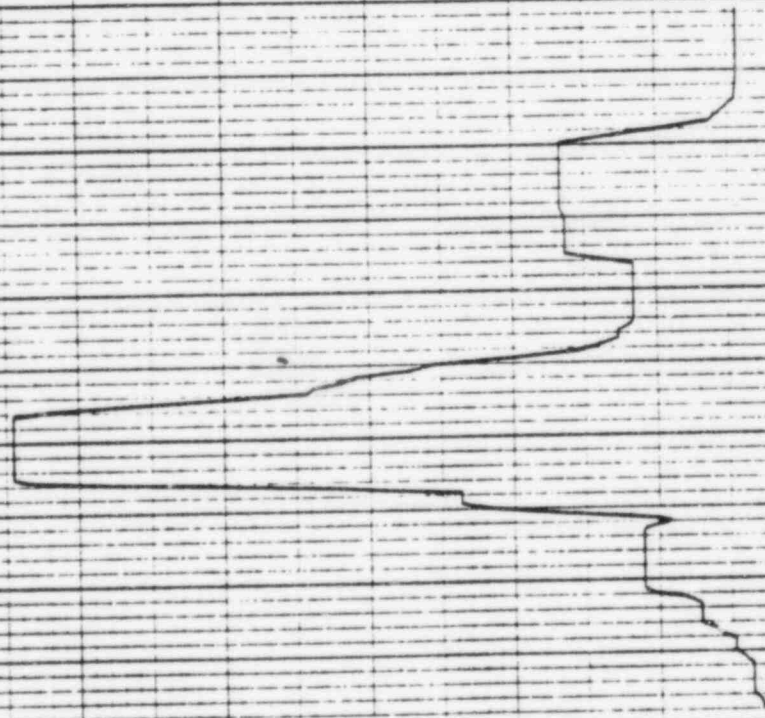
7 MAR 1988

NOR DIRECTION

DAMPING VALUE = 0.020

ACCELERATION G
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

FREQUENCY IN HZ
10⁰ 2 3 4 5 6 7 8 9 10¹



REF 132

7 MAR 1985

SRV

PSPECTRA VER 01 LEV 08
DAF STATES UTILITIES-RBS UNIT 1-CALC1210-NM17-SDE-1903 REV117
RRS OF ACC.-REACTOR BLDG..EL=117.63,MASS=31+32 SE15 MODEL-RPVIMTD
PEAK SPREAD 7-15Z
DISK CURVE SET NO.30

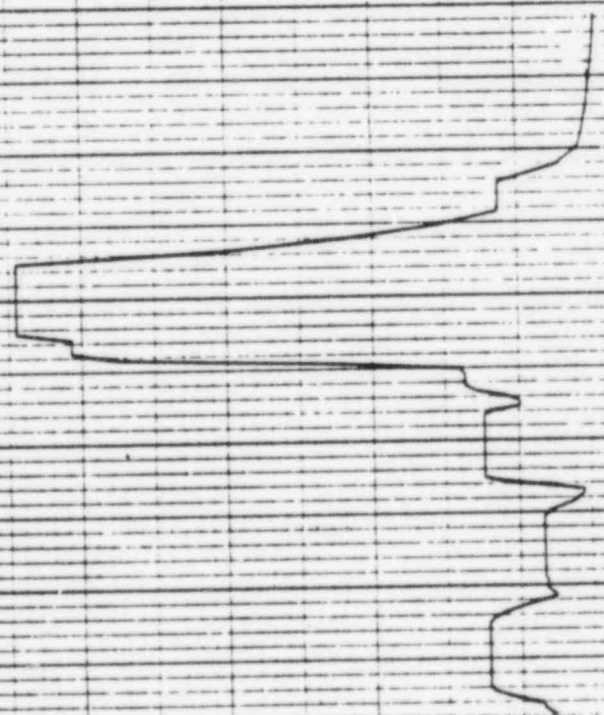
DAMPING VALUE = 0.020

VER DIRECTION

REF 132

ACCELERATION 0 0.80 1.60 2.40 3.20 4.00 4.80 5.60

FREQUENCY IN HZ 10⁰ 2 3 4 5 6 7 8 9 10¹



7 MAR -383

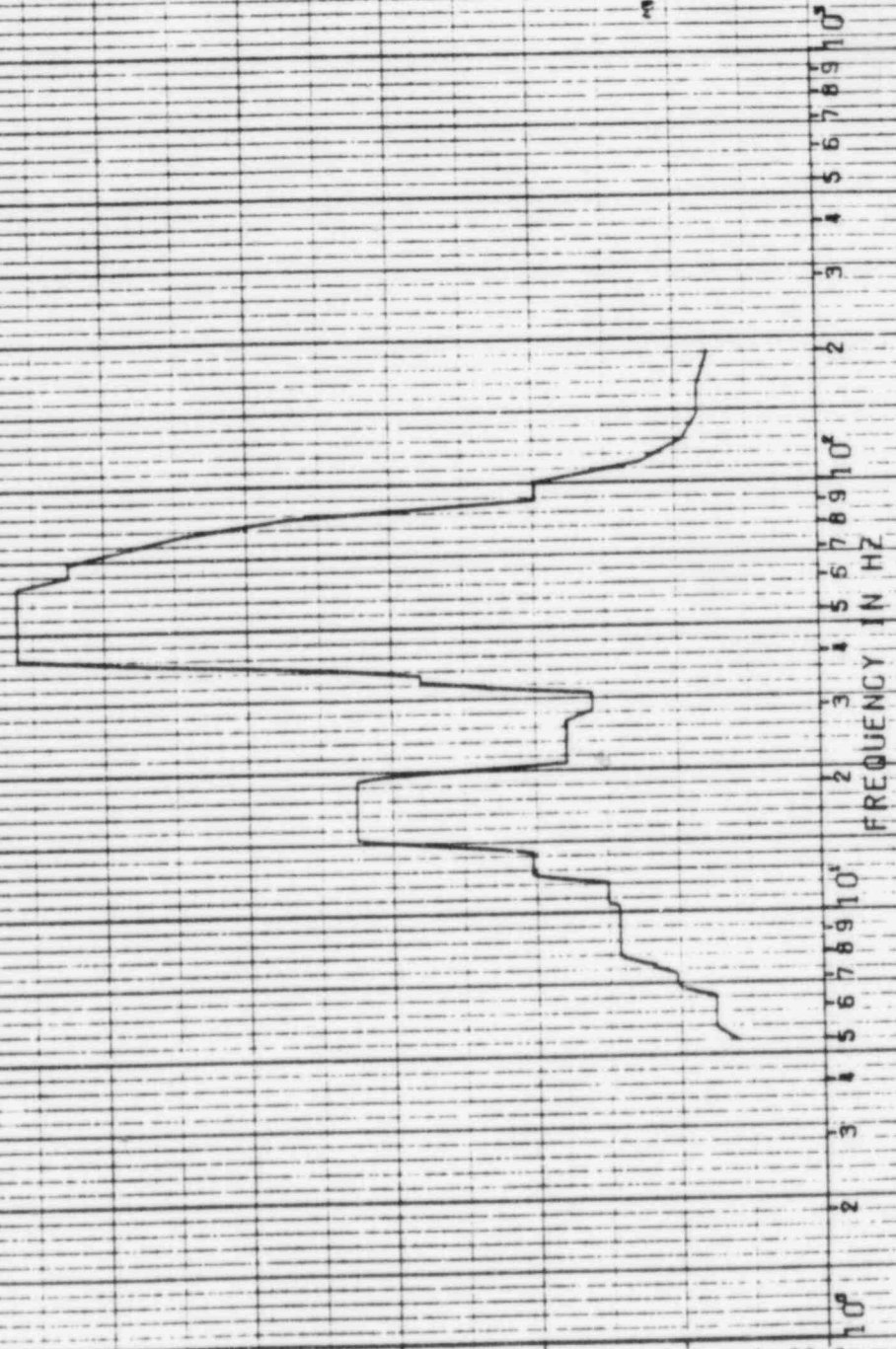
SRV
PSPECIAR VER D1 LEV 08
DULF STATES UTILITIES-R86 UNIT 1-CALC12210-NM17-5DE-1903 REV11
RRS OF ACC.-REACTOR BLDG.-EL-188.09,WR55-93 SEIS MODEL-RPV
PEAK SPREAD +/-15Z
DISK CURVE SET NO.31

DAMPING VALUE = 0.020

HOR DIRECTION

REF 133

ACCELERATION G
0.56 0.48 0.40 0.32 0.24 0.16 0.08 0.00



REF 133

7 MAR 1985

2003A

SRV

PSPECTRA VER D01 LEV DB

GULF STATES UTILITIES-RB5 UNIT 1-CALC12210-NMICJ1-6DE-1809 REV117
RRS OF ACC.-REACTOR BLDG.-EL-186-DB.MR66-53 SE16 MODEL-RPV
PEAK SPREAD 4-15Z

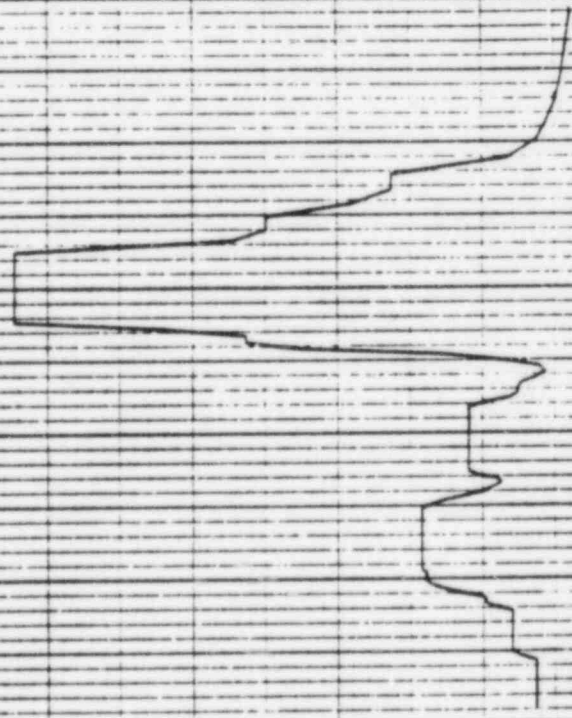
DISK CURVE SET NO.31

VER DIRECTION

DAMPING VALUE = 0.020

ACCELERATION G 0.00 0.40 0.80 1.20 1.60 2.00 2.40 2.80

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² FREQUENCY IN HZ



PSPECTRA VER D1 LEV DB

SRV

17 MAR 1983

GULF STATES UTILITIES-RB5 UNIT 1-CALC12210-NMIC)-SQE-1908 REV11D
IRS OF ACC.-REACTOR BLDG.-EL=91.25D. WEIR WALL
PERK. SPREAD Y-15Z

DISK CURVE SET NO.33

HDR DIRECTION

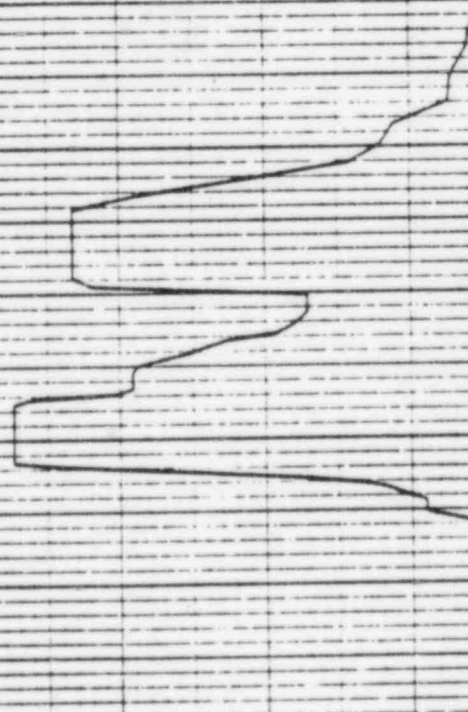
DAMPING VALUE = 0.020

REF 134

ACCELERATION 0 2.00 4.00 6.00 8.00 10.00 12.00 14.00

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² 2 3 4 5 6 7 8 9 10³

FREQUENCY IN HZ



PSPECTRA VER DB LEV DB

GULF STATES UTILITIES-RBS UNIT 1-CALC12210-NM1CJ-5DE-1808 REV113
RRS OF ACC.-REACTOR BLDG.-EL-81-250, WEIR WALL
PEAK SPREAD +/-15Z

DISK CURVE SET NO.59

SRV

VER DIRECTION

7 MAR 1988

12412

DAMPING VALUE = 0.020

ACCELERATION
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40

10⁰ 2 3 4 5 6 7 8 9 10¹ 2 3 4 5 6 7 8 9 10² 2 3 4 5 6 7 8 9 10³

FREQUENCY IN HZ

REF 134

